

US EPA ARCHIVE DOCUMENT

Texas Regs.

Base
Program

SUBCHAPTER L. HAZARDOUS WASTE MANAGEMENT.

APR 7 1984

General.

§ 325.271 Purpose, Applicability, and Release of Information.

- (a) Purpose. The purpose of regulations provided in this subchapter is to promote the protection of health and the environment by establishing standards for proper management of municipal or industrial hazardous wastes under the jurisdiction of the Texas Department of Health, as provided for in the Texas Solid Waste Disposal Act, Article 4477-7, V.T.C.S.
- (b) Applicability. These regulations are substantially equivalent to federal requirements under the Resource Conservation and Recovery Act (RCRA) as promulgated in 40 CFR Parts 260-265 and 40 CFR Parts 270, 271, and 124; and they are applicable to all persons who generate or transport municipal hazardous waste, and to owners and operators of municipal solid waste management facilities receiving hazardous waste for treatment, storage, or disposal.
- (c) Release of Information. Any information obtained or used in the administration of this hazardous waste management program may be made available to the administrator of the U.S. Environmental Protection Agency (EPA) without restriction. Information obtained and provided to EPA by the Texas Department of Health under this provision which contains, but is not limited to, trade secrets, processes, operations, style of work, or apparatus or identifies statistical data and financial information shall be protected under 18 USC 1905 and information provided under a valid claim of confidentiality shall be protected under the provisions of 40 CFR Part 260. Claims of confidentiality will be denied for the name and address of any permit applicant or permittee.
- (d) Signatories.
 - (1) All permit applications must be signed by a person who is authorized to bind the facility and subject it to liability in an enforcement action. All permit applications shall be signed as follows:
 - (A) For a corporation, by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means the following:
 - (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or

(C) The written authorization is submitted to the department.

(3) If an authorization is no longer accurate because of a change in personnel or position, a new written authorization must be submitted to the department. The new authorization may be submitted along with reports or information.

(4) Any persons signing permit applications, reports, or written information shall make the following certification:

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

(e) Inspections. Authorized representatives of the department, upon the presentation of credentials and other documents as may be required by law, shall be allowed to:

- (1) Enter at reasonable times upon the premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
- (2) Have access to and copy, at reasonable times, any required records which relate to hazardous waste or that must be kept under the conditions of the permit;
- (3) Inspect at reasonable times any facilities, equipment, including monitoring and control equipment, practices, or operations regulated or required under the permit; and
- (4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by law, any substances or parameters at any location.

Current Closure Cost Estimate - The most recent of the estimates prepared in accordance with § 325.339 of this title (relating to Financial Requirements).

Current Post-Closure Cost Estimate - The most recent of the estimates prepared in accordance with § 325.339 of this title (relating to Financial Requirements).

Designated Facility - A hazardous waste treatment, storage, or disposal facility which has achieved interim status pursuant to 40 CFR Part 270 or has been permitted by the Texas Department of Health or the Texas Department of Water Resources and has been designated on the manifest to receive the generator's shipment of hazardous waste.

Discharge - The accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous 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 into or on any land or water so that such solid 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 hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure.

Elementary Neutralization Unit - A device which is used for neutralizing wastes which are hazardous wastes only because they exhibit the corrosivity characteristic defined in 40 CFR § 261.22 or are listed in Subpart D of 40 CFR Part 261 only for this reason and meets the definition of a tank, container, or transport vehicle as defined in this section.

EPA - The U.S. Environmental Protection Agency.

EPA Identification Number - The number assigned by the U.S. Environmental Protection Agency to each generator, transporter, and owner or operator of a treatment, storage, or disposal facility.

EP Toxicity - A characteristic of a hazardous waste as defined in 40 CFR Part 261, Subpart C.

Existing Hazardous Waste Management (HWM) Facility or Existing Facility - A facility which was in operation or for which construction commenced on or before November 19, 1980. A facility has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and either a continuous on-site physical construction program has begun or the owner or operator has entered into contractual obligations--which cannot be cancelled or modified without substantial loss--for physical construction of

Incinerator - An enclosed device using controlled flame combustion the primary purpose of which is to thermally break down hazardous waste.

Industrial Hazardous Waste - Any industrial solid waste or combination of industrial solid wastes identified or listed as a hazardous waste by the administrator of the U.S. Environmental Protection Agency pursuant to Section 3001 of the Resource Conservation and Recovery Act of 1976.

Industrial Solid Waste - Solid waste resulting from or incidental to any process of industry or manufacturing, or mining or agricultural operations.

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.

In Operation - A facility which is treating, storing, or disposing of hazardous waste.

Interim Status Standards Facilities - Those existing hazardous waste treatment, storage, and disposal facilities who qualified for interim status under Section 3005(e) of RCRA.

International Shipment - Transportation of hazardous waste into or out of the jurisdiction of the United States.

Landfill - A disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a land treatment facility, a surface impoundment, or an injection well.

Landfill Cell - A discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes.

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.

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, its constituents, or leachate.

Local Government - A county; an incorporated city or town; or a political subdivision which has been granted power by the Legislature to regulate solid waste handling or disposal practices or activities within its jurisdiction.

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

(including recycling and reclamation) of municipal sewage which is owned by a city, town, county, district, authority, association, or other public body created by or under state law and having jurisdiction over disposal of sewage, or which is owned by an Indian tribe or authorized Indian tribal organization and federal agencies treating and disposing of sewage. (Sewers, pipes, or other conveyances are included in this definition only if they convey wastewater to a POTW providing treatment.)

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 so as to render such waste nonhazardous, safer for transport, amenable for recovery, amenable for storage, or reduced in volume.

Qualified Engineer - A professional engineer registered in the State of Texas who is by education or experience qualified to do engineering design of the described system.

RCRA - The federal Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq. , as amended.

Reactivity - A characteristic of a hazardous waste as defined by EPA in 40 CFR Part 261, Subpart C.

Sludge - Any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such wastes having similar characteristics and effect exclusive of the treated effluent from a wastewater treatment plant.

Solid Waste - Any garbage; refuse; sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility; and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, municipal, commercial, mining, and agricultural operations and from community and institutional activities, but does not include:

- (A) 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 Chapter 26, Water Code;
- (B) 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; or
- (C) waste materials which result from activities associated with the exploration, development, or production of oil or gas and are subject to control by the Railroad Commission of Texas.

vehicle. Vessel includes every description of watercraft used or capable of being used as a means of transportation of the water.

Treatment - Any method, technique, or process, including neutralization, 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 resources 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.

Treatment Zone - A soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized.

Uppermost Aquifer - The geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

Wastewater Treatment Unit - A device which:

- (A) Is part of a wastewater treatment facility which is subject to regulation under either § 402 or § 307(b) of the Clean Water Act; and
- (B) Receives and treats or stores an influent wastewater which is a hazardous waste or generates and accumulates a wastewater treatment sludge which is a hazardous waste, or treats or stores a wastewater treatment sludge which is a hazardous waste; and
- (C) Meets the definition of tank in this section.

§ 325.274 Hazardous Waste Regulated, Exclusions, and Exceptions.

- (a) EPA definition of hazardous waste. This section identifies hazardous waste as identified and listed by EPA in 40 CFR Part 261. The Solid Waste Disposal Act, Article 4477-7, V.T.C.S., defines hazardous waste as solid waste identified or listed as a hazardous waste by the administrator of the U.S. Environmental Protection Agency pursuant to RCRA. Therefore, this section must be consistent with the meaning and use of the terms of solid waste and hazardous waste as used by EPA in regulations promulgated under RCRA and regulate the same universe of municipal hazardous waste as regulated by EPA.

(1) Solid waste.

- (A) A solid waste is any garbage, refuse, sludge, or any other waste material which is not excluded under paragraph (1) of subsection (c) of this section.

- (B) "Other waste material" is any solid, liquid, semi-solid, or contained gaseous material resulting from commercial or community activities which:

- (i) Is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded; or

- (ii) Has served its original intended use and sometimes is discarded.

- (C) A material is "discarded" if it is abandoned (and not used, reused, reclaimed, or recycled) by being:

- (i) Disposed of;

- (ii) Burned or incinerated, except where the material is being burned as a fuel for the purpose of recovering usable energy; or

- (iii) Physically, chemically, or biologically treated (other than burned or incinerated) in lieu of or prior to being disposed of.

- (D) A material is "disposed of" if it is discharged, deposited, injected, dumped, spilled, leaked, or placed into or on any land or water so that such material or any constituent thereof may enter the environment or be emitted into the air or discharged into ground or surface waters.

- (2) Hazardous Waste. The hazardous waste regulated in subsection (b) of this section is consistent with the hazardous waste listed and identified by EPA.

- (i) One or more of the following spent solvents listed in 40 CFR § 261.31--carbon tetrachloride, tetrachloroethylene, trichloroethylene--provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pre-treatment system does not exceed one part per million; or
- (ii) One or more of the following spent solvents listed in 40 CFR § 261.31--methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents--provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pre-treatment system does not exceed 25 parts per million; or
- (iii) One of the following wastes listed in 40 CFR § 261.32--heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050); or
- (iv) A discarded commercial chemical product, or chemical intermediate listed in 40 CFR § 261.33, arising from de minimis losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this subparagraph, de minimis losses include those from normal material handling operations (e.g. , spills from the unloading or transfer of materials from bins or other containers and leaks from pipes, valves, or other devices used to transfer materials); minor leaks of process equipment, storage tanks, or containers ; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that

consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in 40 CFR § 261.33(e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in 40 CFR § 261.33(e) or (f), such waste will be listed in either 40 CFR §§ 261.31 or 261.32 or will be identified as a hazardous waste by the characteristics set forth in 40 CFR Part 261, Subpart C.

- (8) Any solid waste generated from the treatment, storage, or disposal of a hazardous waste--including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off)--is a hazardous waste unless the solid waste does not exhibit a hazardous waste characteristic identified in paragraph (4) of this subsection or has been demonstrated to not be a hazardous waste in accordance with 40 CFR §§ 260.20 and 260.22.
- (c) Exclusions. The following materials are not subject to regulation under this subchapter.
 - (1) Materials which are not solid wastes. For purposes of these regulations, the following listed materials are not solid wastes and, therefore, do not fall within § 325.272 of this title (relating to Definitions of Terms and Abbreviations); e.g. , a waste must first be a solid waste before it can be a hazardous waste.
 - (A) Domestic sewage; i.e. , untreated sanitary wastes that pass through a sewer system.
 - (B) Any mixture of domestic sewage and other wastes that passes through a sewer system to a wastewater treatment plant for treatment.
 - (C) Industrial wastewater discharges that are point source discharges subject to regulation under § 402 of the Clean Water Act, as amended. (This exclusion applies only to the actual point source discharge. It does not include industrial wastewaters while they are being collected, stored, or treated before discharge nor does it exclude sludges that are generated by industrial wastewater treatment.)
 - (D) Irrigation return flows.

(iv) Specific wastes in this category are listed in 40 CFR § 261.4(b)(6)(ii).

(D) Waste which consists of discarded wood or wood products which fails the test for the characteristic of EP toxicity, and which is not a hazardous waste for any other reason, if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(3) Hazardous waste which are exempted from certain requirements. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, or a product or raw material pipeline is subject only to regulation under § 325.273 of this title (relating to Hazardous Waste Determination) until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for storage or transportation of product or raw materials.

(4) Samples. A sample of a solid waste which is being transported and/or stored by a sample collector or a laboratory is not subject to the regulations of this subchapter if it meets the following criteria.

(A) The sample must be used for for one of the following purposes.

(i) Hazardous waste identification, composition determination, or analytical testing process; or

(ii) Use in current or potential enforcement action.

(B) The transportation of the sample must comply with the following provisions.

(i) Packaging and shipping shall be in accordance with the Department of Transportation and U.S. Postal Service requirements; or

(ii) Alternate shipping requirements below must be followed if clause (i) of this subparagraph is not applicable.

(I) Assure that the sample package does not spill or leak; and

(II) Mark the sample package with the name, mailing address, and telephone

(C) Acute hazardous waste. A container or an inner liner removed from a container that has held acute hazardous waste is empty if:

- (i) The container or inner liner has been triple-rinsed using a solvent capable of removing the acute hazardous waste. (Triple rinsing means rinsing the container three times with a solvent capable of removing the commercial chemical product or manufacturing intermediate from the container or liner using a volume of solvent equal to 10% of the volume of the container or liner for each rinse. The resulting rinsate must be managed as a hazardous waste, except in the case of pesticide rinsate which is generated by a farmer and disposed of on his own property.)
- (ii) The container or inner liner has been cleaned by another method (other than triple rinsing) that has been shown in scientific literature or by tests conducted by the generator to achieve equivalent removal of the acute hazardous waste.
- (iii) In the case of a container, the inner liner that prevented contact of the acute hazardous waste with the container has been removed.
- (iv) Containers or liners which held acute hazardous waste and which have not been decontaminated in accordance with clauses (i), (ii), or (iii) of this subparagraph may be empty in a dictionary sense and have no measureable residue (e.g. , have only a dry or moist contaminated film coating the inside of the vessel). In lieu of a measurable residue, such vessels, if discarded or intended to be discarded, become a special hazardous debris subject to the small quantity (100 kilogram) requirements for debris as explained in § 325.298 of this title (relating to Special Requirements for Small Quantity Generator).
- (v) A measurable quantity of acute hazardous waste residue in a container (or an inner liner removed from a container) which exceeds one kilogram is fully subject to the small quantity (one kilogram) requirements explained in § 325.298 of this title (relating to Special Requirements for Small Quantity Generators).

§ 325.276 EPA Identification Number. Persons who generate or transport municipal hazardous waste or who own or operate a municipal solid waste management facility for the treatment, storage, or disposal of hazardous waste and have not applied for (using EPA Form 8700-12) and received an EPA identification number from the U.S. Environmental Protection Agency must obtain an identification number from the Texas Department of Health or the U.S. Environmental Protection Agency prior to engaging in any of the foregoing hazardous waste activities after the effective date of these regulations.

Generators.

§ 325.291 Generators. The regulations contained in §§ 325.291 - 325.299 of this title (relating to Generators) establish standards for persons who generate municipal hazardous waste.

- (B) The transportation, storage, treatment, or disposal is in accordance with applicable regulations of the Texas Department of Health and the Texas Department of Water Resources.
- (3) A hazardous waste management facility permitted or otherwise authorized by EPA or an authorized state in accordance with the regulations applicable to the facility.
- (c) Any person who imports municipal hazardous waste into or exports municipal hazardous waste out of the United States is subject to generator requirements.
- (d) An owner or operator of a POTW which generates a municipal hazardous waste is subject to generator requirements.
- (e) A farmer who disposes of waste pesticides and their containers from his own use is subject to the industrial solid waste rules of the Texas Department of Water Resources.

accordance with these regulations. (The 90-day time period for accumulation of wastes on-site begins for a small quantity generator when the accumulated wastes exceed the allowable small quantity levels.)

§ 325.295 Manifest Requirements.

- (a) Before transporting municipal hazardous waste or offering such waste for transportation off-site, a generator of a hazardous waste shipment which either originates or terminates in Texas must furnish to the transporter a properly executed manifest (Waste Shipping-Control Ticket), or a uniform national manifest when it is implemented, using Texas Municipal Waste Code Numbers (available from the Bureau of Solid Waste Management, Texas Department of Health). (Generators must not offer hazardous waste to transporters or to treatment, storage, or disposal facilities that do not have an EPA Identification Number.)
- (b) The generator must designate on the manifest one facility which has a permit to receive and handle the hazardous waste described on the manifest. One alternate permitted facility may be designated in the event an emergency prevents delivery to the primary facility. The generator must instruct the transporter to return hazardous waste if the transporter notifies him that delivery cannot be made to the designated primary or alternate facilities.
- (c) The generator must prepare the manifest in at least the number of copies which will provide the generator, each transporter, and the owner or operator of designated receiving facilities with one copy each for their records and one additional copy to be returned to the generator by the facility receiving the hazardous waste.
- (d) The generator must obtain the handwritten signature of the initial transporter and the date of hazardous waste acceptance on the manifest. He shall retain one copy for his records and provide the initial transporter with the remaining copies to accompany waste shipment to the receiving facility. However, copies of the manifest are not required for each transporter when shipment of hazardous waste within the United States is solely by railroad or solely by water (bulk shipments only). In such instances, the generator must send three copies of the signed and dated manifest directly to the owner or operator of the designated receiving facility.
- (e) Any person who exports municipal hazardous waste to a foreign country or imports municipal hazardous waste from a foreign country must comply with the requirements of paragraphs (1) and (2) of this subsection.
 - (1) Exporting. When shipping hazardous waste outside the United States, the generator must:
 - (A) Notify the Texas Department of Health and the administrator (EPA) in writing four weeks before the initial shipment of hazardous waste to each country in each calendar year.

the Texas Department of Health. A person engaging in such activity shall meet all manifest requirements of these regulations except that:

- (A) The name and address of the foreign generator and the importer's name, address, and EPA Identification Number shall be used on the manifest.
- (B) The U.S. importer or his agent must sign and date the certification and obtain the signature of the initial transporter on the manifest.

- (1) Follow-up Action. If a generator does not receive a return copy of the manifest with the signature of the owner or operator of the designated facility within 35 days of the date that the hazardous waste was accepted by the initial transporter, he must promptly contact the transporter and/or the owner or operator of the designated facility to determine the status of the waste shipment.
- (2) Exception Report. A generator who has not received a return copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of date that the hazardous waste was accepted by the initial transporter must submit an exception report to the Texas Department of Health, Bureau of Solid Waste Management, 1100 West 49th Street, Austin, Texas 78756. The exception report must include:
 - (A) A cover letter signed by the generator or his authorized representative explaining the efforts used to locate the shipment of municipal hazardous waste and the results of those efforts; and
 - (B) A legible copy of the manifest (Waste Shipping-Control Ticket) for which the generator does not have confirmation of delivery.
- (3) Interstate Shipments. In the case of interstate shipments of hazardous waste for which the generator has not received a return copy of the manifest within 45 days of acceptance of the waste by the initial transporter, the generator shall take the following actions:
 - (A) Notify the appropriate regulatory agency of the state in which the designated facility is located and the appropriate regulatory agency of the state in which the shipment may have been delivered; and
 - (B) Submit an exception report to the Texas Department of Health.
- (4) International Shipments. In the case of international shipments of hazardous waste, a generator must submit an exception report to the Texas Department of Health if:
 - (A) 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 the waste was accepted by the initial transporter; or
 - (B) Within 90 days from the date the waste was accepted by the initial carrier, the generator has not received written confirmation from the foreign consignee that the waste was received.

§ 325.297 Record Keeping Requirements.

- (a) Manifest. A generator must retain a copy of the manifest (Waste Shipping-Control Ticket) provided to an initial transporter for three years or until a signed copy is received from the designated facility acknowledging receipt of the hazardous waste shipment. The copy of the manifest signed by the owner or operator of the receiving facility must then be retained for three years from the date the waste was accepted by the initial transporter.
- (b) Annual Report. A generator who is required to submit an Annual Waste Disposal Summary in accordance with subsection (a)(1) of § 325.296 of this title (relating to Reporting Requirements) must retain a copy of each report for at least three years from the March 1 due date for each report.
- (c) Monthly Waste Shipment Summary. A generator must retain a copy of each report for at least three years from the due date of the summary.
- (d) Exception Report. A generator must retain a copy of any exception report submitted for three years from date of the report.
- (e) Retention Period Extensions. The retention periods for records addressed in this section are extended automatically during the course of any unresolved enforcement action regarding a generator's activity or as requested by the Texas Department of Health.
- (f) Waste Determination Data. A generator must keep records of any test results, waste analyses, or other determinations made in accordance with § 325.273 of this title (relating to Hazardous Waste Determination) for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.

- (5) The generator may exclude from his small quantity determination:
 - (A) Hazardous waste that is beneficially used or reused or legitimately recycled or reclaimed and that is excluded from regulation by subsection (a) of § 325.299 of this title (relating to Hazardous Waste Which is Used, Reused, Recycled, or Reclaimed);
 - (B) His hazardous waste when it is removed from on-site storage; or
 - (C) Hazardous waste produced by on-site treatment of his hazardous waste.
 - (6) The generator may not exclude from his small quantity determination a hazardous waste which is subject to the requirements of subsection (b) of § 325.299 of this title (relating to Hazardous Waste Which is Used, Reused, Recycled, or Reclaimed). Such waste is subject to the small quantity generator rules.
- (b) Acute waste quantities. Acute hazardous waste generated by a small quantity generator in quantities which are equal to or less than the following limits in a calendar month are subject only to the rules of this section and are to be included in the determination of the 1,000 kilograms per month set forth in subsection (a) of this section. Acute hazardous waste in quantities greater than these amounts is fully regulated. Acute hazardous waste generated in quantities excluded from full regulation under this subchapter may be subject to control under other provisions of this chapter.
- (1) A total of one kilogram of commercial chemical products and manufacturing chemical intermediates having the generic names listed in 40 CFR § 261.33(e) and off-specification commercial chemical products and manufacturing chemical intermediates which, if they met specifications, would have the generic names listed in 40 CFR § 261.33(e);
 - (2) A total of 100 kilograms of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into or on any land or water of any commercial products or manufacturing chemical intermediates having the generic names listed in 40 CFR § 261.33(e); or
 - (3) A total of 100 kilograms of containers or inner liners from containers which have held acute hazardous waste, which are abandoned or discarded, which have not been decontaminated to render them empty, and which do not have a measurable residue as explained in subsection (d) of § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions) (Quantities less

- (1) Hazardous waste subject to the reduced requirements explained in this section may be mixed with nonhazardous waste and remain subject to the reduced requirements, even though the resulting mixture exceeds established quantity limitations. This does not apply if the resulting mixture creates a waste which meets one or more characteristics of a hazardous waste as explained in 40 CFR Part 261, Subpart C.
- (2) If a small quantity generator mixes a solid waste with a hazardous waste which exceeds a quantity exclusion level explained in this section, the complete mixture is subject to full regulations of this subchapter.

Transporters.

§ 325.311 Scope.

- (a) These regulations apply to persons transporting municipal hazardous waste which is subject to manifest requirements of § 325.295 of this title (relating to Manifest Requirements).
- (b) These regulations do not apply to on-site transportation of hazardous waste by generators and owners/operators of a permitted municipal hazardous waste management facility.
- (c) Transporters who accumulate unmanifested municipal hazardous waste in amounts which are in excess of the small quantity generator exclusion limits identified in § 325.298 of this title (relating to Special Requirements for Small Quantity Generators) are subject to requirements under §§ 325.291 - 325.299 of this title (relating to Generators).
- (d) Transporters who accumulate and store manifested or unmanifested hazardous waste regulated under § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions) and who store such waste in containers which meet the requirements of subsection (a) of § 325.294 of this title (relating to Pretransport Requirements) for no more than 10 days at a transfer facility are not subject to §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators) with respect to storage of the waste.
- (e) A transporter of municipal hazardous waste must comply with requirements under §§ 325.291 - 325.299 of this title (relating to Generators) if he:
 - (1) Transports hazardous waste into the United States from abroad; or
 - (2) Mixes hazardous wastes of different DOT shipping descriptions by placing them into a single container.

§ 325.313 Delivery Requirements.

- (a) The transporter must deliver the entire quantity of municipal hazardous waste which he has accepted from a generator or a preceding transporter to:
 - (1) The designated facility listed on the manifest;
 - (2) The alternate designated facility if an emergency prevents delivery to the designated facility;
 - (3) The next designated transporter; or
 - (4) The place outside the United States designated by the generator.
- (b) If the hazardous waste shipment cannot be delivered in accordance with subsection (a) of this section, the transporter must contact the generator for further directions and must revise the manifest according to the generator's instructions.

§ 325.315 Hazardous Waste Discharges.

- (a) A transporter must take the following actions in the event of an accidental, unintended, or unauthorized intentional discharge of municipal hazardous waste.

- (1) Immediate Action. Take appropriate action to protect human health and the environment, notify local authorities, and dike or contain the discharge area.
- (2) Follow-up Action. In accord with the State of Texas Oil and Hazardous Substances Spill Contingency Plan, provide telephone notification as soon as possible, but no later than 24 hours after discharge occurrence, to the Texas Department of Water Resources' district office responsible for the county in which the spill occurred or to the Texas Department of Water Resources' central office. Telephone Contacts--

Normal: (512) 475-5695
Nights/Weekends: (512) 475-2651

- (b) If a discharge of hazardous waste occurs during transportation and an official (state or local government or a federal agency) 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:
- (1) Give notice, if required by 49 CFR § 171.15, to the National Response Center, (800) 424-8802 or (202) 426-2675; and
 - (2) Report in writing as required by 49 CFR § 171.16 to the Chief, Information Systems Division, Transportation Programs 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 CFR § 153.203 for oil and hazardous substances.

Facility Owners and Operators.

§ 325.331 Purpose and Scope. The purpose of §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators) is to establish standards for facilities and for the management by owners and operators of facilities used for the treatment, storage, or disposal of:

- (1) Municipal hazardous waste regulated under § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions and Exceptions); and
- (2) Industrial hazardous waste which has been authorized by the Texas Department of Health for treatment, storage, or disposal at a municipal hazardous waste facility provided that the transportation, storage, treatment, or disposal is in accordance with applicable regulations of the Texas Department of Health and the Texas Department of Water Resources.

§ 325.332 Applicability.

- (a) The standards of §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators) apply to owners and operators of municipal solid waste facilities which treat, store, or dispose of hazardous waste. Such a facility shall not be operated without the owner or operator obtaining a permit from the department in accordance with the requirements of § 325.350 of this title (relating to Permits) or fully complying with the requirements for interim status under § 3005(e) of RCRA and subsections (a)(1)(A) and (a)(3) of § 325.350 of this title (relating to Permits). In either case, the owner or operator shall operate the facility in compliance with applicable requirements of this subchapter, except as specifically provided otherwise in this subchapter. A permit holder of a municipal solid waste disposal site may be authorized to operate a hazardous waste activity on his permitted site by obtaining a permit amendment from the department in accordance with § 325.350 of this title (relating to Permits) to authorize the establishment of a hazardous waste activity within a designated portion of the site. The hazardous waste design and operating criteria will be applicable only to the designated portion of the site. The procedures for obtaining a permit for a new or separate hazardous waste facility are as prescribed in § 325.350 of this title (relating to Permits). A prospective permit applicant, in all cases, should consult with the department to determine specific application requirements for the proposed facility.
- (b) The standards in §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators) do not apply to:
- (1) A person disposing of municipal hazardous waste by means of ocean disposal subject to a permit issued under the Marine Protection, Research, and Sanctuaries Act. (These regulations do apply to the treatment or storage of municipal hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea.)
 - (2) A person disposing of municipal hazardous waste by means of underground injection subject to a permit issued under an underground injection control (UIC) program approved or promulgated under the Safe Drinking Water Act. (Except where the facility is regulated by the Texas Department of Water Resources, these regulations do apply to the above ground treatment or storage of municipal hazardous waste before it is injected underground.)
 - (3) The owner or operator of a POTW which treats, stores, or disposes of municipal hazardous waste received as a part of domestic sewage in accordance with the exclusion of subsection (c) of § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions).

- (4) A generator accumulating waste on-site in compliance with subsection (a) of § 325.293 of this title (relating to Hazardous Waste Accumulation).
- (5) The owner or operator of a totally enclosed treatment facility, as defined in § 325.272 of this title (relating to Definitions of Terms and Abbreviations).
- (6) The owner or operator of an elementary neutralization unit or a wastewater treatment unit.
- (7) Persons, including owners and operators of processing, storage, or disposal facilities, who make an immediate emergency response to contain or treat a discharge or an imminent and substantial threat of a discharge of a hazardous waste or a hazardous material which would become a hazardous waste when discharged, except that owners and operators of processing, storage, or disposal facilities remain subject to § 325.334 of this title (relating to Preparedness and Prevention) and § 325.335 of this title (relating to Contingency Plan and Emergency Procedures) if they are otherwise subject to §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators). After the immediate response activities are completed, the applicable regulations of this subchapter apply to the management of the hazardous waste.
- (8) A transporter storing manifested shipments of hazardous waste at a transfer facility for a period of 10 days or less.
- (9) The addition of absorbent material to waste in a container or the addition of waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container and subsection (f) of § 325.333 of this title (relating to General) and subsections (b) and (c) of § 325.340 of this title (relating to Use and Management of Containers) are complied with.
- (10) The owner or operator of a facility which treats or stores hazardous waste when the treatment or storage meets the criteria of subsection (a) of § 325.299 of this title (relating to Hazardous Waste Which is Used, Reused, Recycled, or Reclaimed), except to the extent that subsection (b) of § 325.299 of this title (relating to Hazardous Waste Which is Used, Reused, Recycled, or Reclaimed) provides otherwise.
- (11) A farmer disposing of waste pesticides from his own use in compliance with subsection (e) of § 325.292 of this title (relating to Scope and Applicability).

- (12) The owner or operator of a facility permitted to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under § 325.298 of this title (relating to Special Requirements for Small Quantity Generators).
- (c) Notwithstanding any provision of these regulations, enforcement action may be brought pursuant to § 4(e)(10) of the Solid Waste Disposal Act, Article 4477-7, V.T.C.S., if the department determines an imminent hazard exists.

§ 325.333 General.

(a) Required Notices.

- (1) The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the Texas Department of Health and the EPA regional administrator in writing at least four weeks in advance of the date that the waste is expected to arrive at the facility.
- (2) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the Texas Department of Health in accordance with § 325.350 of this title (relating to Permits).
- (3) The owner or operator of a facility that receives hazardous waste from an off-site source (except where the owner or operator is also the generator) must inform the generator in writing that he has the appropriate permit(s) or authorization for, and will accept, the waste the generator is shipping. The owner or operator must keep a copy of this written notice as part of the operating record.

(b) Waste Analysis Requirements.

- (1) Before an owner or operator treats, stores, or disposes of any hazardous waste, he must obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, this analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with the requirements of §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators).
- (2) The analysis may include data developed in accordance with § 325.273 of this title (relating to Hazardous Waste Determination) and § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), and existing published or documented data on the hazardous waste or on waste generated from similar processes. For example, the facility's record of analyses performed on the waste before the effective date of these regulations or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility may be included in the data base required to comply with this paragraph. The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the information required by this paragraph. If the generator does not supply the

information and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information to comply with analysis requirements.

- (3) The analysis must be repeated as necessary to ensure that it is accurate and up-to-date. At a minimum, the analysis must be repeated:
 - (A) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste has changed; and
 - (B) For off-site facilities, when the results of the inspection required in paragraph (4) of this subsection indicate that hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.
- (4) The owner or operator of an off-site facility must inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.
- (5) The owner or operator must develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with paragraph (1) of this subsection. He must keep this plan at the facility. At a minimum, the plan must specify:
 - (A) The parameters for which each hazardous waste will be analyzed and the rationale for the selection of these parameters (i.e. , how analysis for these parameters will provide sufficient information on the waste's properties to comply with paragraph (1) of this subsection).
 - (B) The test methods which will be used to test for these parameters.
 - (C) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:
 - (i) One of the sampling methods described in 40 CFR Part 261, Appendix I; or
 - (ii) An equivalent sampling method.
 - (D) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up-to-date.

- (E) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply.
- (F) Where applicable, specific management methods which will be used to meet the additional waste analysis requirements of §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators).
- (G) For off-site facilities, the procedures which will be used to inspect, and if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:
 - (i) The procedures which will be used to determine the identity of each movement of waste managed at the facility; and
 - (ii) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.

(c) Security.

- (1) The owner or operator must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility, unless:
 - (A) Physical contact with the waste, structures, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of the facility; and
 - (B) Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of this subchapter.
- (2) Unless exempt under paragraphs (1)(A) and (B) of this subsection, a facility must have:
 - (A) A 24-hour surveillance system (e.g. , television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility; or
 - (B) An artificial or natural barrier (e.g. , a fence in good repair or a fence combined with a cliff),

which completely surrounds the active portion of the facility; and

(C) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g. , an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

(3) Unless the owner or operator has made a successful demonstration under paragraphs (1)(A) and (B) of this subsection, a sign with the legend, "Danger-Unauthorized Personnel Keep Out," must be posted at each entrance to the active portion of a facility and at other locations in sufficient numbers to be seen from any approach to this active portion. The legend must be written in English and in any other language predominant in the area surrounding the facility, and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger-Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion and that entry onto the active portion can be dangerous.

(d) Inspection Requirements.

(1) The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing--or may lead to--release of hazardous waste constituents to the environment or a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(2) The owner or operator must develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

(A) He must keep this schedule at the facility.

(B) The schedule must identify the types of problems (e.g. , malfunctions or deterioration) which are to be looked for during the inspection (e.g. , inoperative sump pump, leaking fitting, eroding dike, etc.)

(C) The frequency of inspection and elements to be inspected may vary for the items on the schedule. However, it should be based on the rate of possible

deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or malfunction or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include containers; tanks; surface impoundments; piles; landfills; incinerators; thermal treatment equipment; and chemical, physical, and biological treatment facilities specified for these items in §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators).

- (3) The owner or operator must remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred remedial action must be taken immediately.
- (4) The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observation made, and the date and nature of any repairs or other remedial actions.

(e) Personnel Training.

- (1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators). The owner or operator must ensure that this program includes all the elements described in the documents required under paragraph (6) of this subsection.
- (2) This program must be directed by a person trained in hazardous waste management procedures and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.
- (3) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable:

- (A) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
 - (B) Key parameters for automatic waste feed cut-off systems;
 - (C) Communications or alarm systems;
 - (D) Response to fires or explosions;
 - (E) Response to groundwater contamination incidents; and
 - (F) Shutdown of operations.
- (4) Facility personnel must successfully complete the program required in paragraph (1) of this subsection within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements.
- (5) Facility personnel must take part in an annual review of the initial training required in paragraph (1) of this subsection.
- (6) The owner or operator must maintain the following documents and records at the facility:
- (A) The job title for each position at the facility related to hazardous waste management and the name of the employee filling each job.
 - (B) A written job description for each position. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit but must include the requisite skill, education, or other qualifications and duties of employees assigned to each position.
 - (C) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.
 - (D) Records that document that the training or job experience required under paragraphs (1), (2), and (3) of this subsection have been given to, and completed by, facility personnel.

- (7) Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.
- (f) General Requirements for Ignitable, Reactive, or Incompatible Wastes.
- (1) The department adopts by reference the EPA regulations contained in 40 CFR Part 264, Appendix V, and 40 CFR Part 265, Appendix V, entitled, "Examples of Potentially Incompatible Waste." These regulations are indexed and filed in the Bureau of Solid Waste Management, Texas Department of Health office, located at 1100 West 49th Street, Austin, Texas 78756, and are available for public inspection during regular working hours.
- (2) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including, but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to a specially designated location. "No smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.
- (3) Where specifically required by other standards in §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators), the owner or operator of a facility that treats, stores, or disposes ignitable or reactive waste, or mixes incompatible wastes and other materials, must take precautions to prevent reactions which:
- (A) Generate extreme heat or pressure, fire or explosion, or violent reaction;
- (B) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
- (C) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
- (D) Damage the structural integrity of the device or facility containing the waste; or

(E) Through other like means threaten human health or the environment.

(4) The owner or operator must document compliance with the foregoing requirements in the facility operating records whenever ignitable, reactive, or incompatible wastes are being treated, stored, or disposed. This documentation may be based on references to published scientific or engineering literature, data from trial tests (e.g. , bench scale or pilot scale tests) results of waste analysis required under subsection (b) of this section; or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

(g) Location Standards. A facility located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of any hazardous waste by a 100-year flood. The site shall be protected from flooding with suitable levees constructed to provide protection from a 100-year frequency flood and in accordance with the rules and regulations of the Texas Department of Water Resources relating to levee improvement districts and approval of plans for reclamation projects. Flood protection levees shall be designed and constructed to prevent the washout of hazardous waste from the site. Such levees shall not significantly restrict the flow of a 100-year frequency flood nor significantly reduce the temporary water storage capacity of the 100-year floodplain. Any construction, fill or levee within a 100-year floodplain shall receive plan approval, if required, by the Texas Department of Water Resources prior to construction. The following words and terms, when used in this subsection, shall have the following meanings, unless the context clearly indicates otherwise:

- (1) 100-year floodplain - Any land area which is subject to a 1.0% or greater chance of flooding in any given year from any source.
- (2) Washout - The movement of hazardous waste from the active portion of the facility as a result of flooding.
- (3) 100-year flood - A flood that has a 1.0% chance of being equalled or exceeded in any given year.

§ 325.334 Preparedness and Prevention.

- (a) Design and Operation of Facilities. Facilities must be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
- (b) Equipment Requirements. All facilities must be equipped with the following emergency items, unless none of the hazards posed by waste handled at the facility could require them.
 - (1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;
 - (2) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;
 - (3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and
 - (4) Water at adequate volume and pressure to supply water hose streams, foam-producing equipment, automatic sprinklers, or water spray systems.
- (c) Testing and Maintenance of Equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.
- (d) Access to Communications or Alarm System.
 - (1) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless none of the hazards posed by waste handled at the facility could require them.
 - (2) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless none of the hazards posed by waste handled at the facility could require them.

- (e) Aisle Space Requirements. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.
- (f) Arrangements with Local Authorities.
 - (1) The owner or operator must attempt to make the following arrangements as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations.
 - (A) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes.
 - (B) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department and agreements with any others to provide support to the primary emergency authority.
 - (C) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers.
 - (D) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.
 - (2) Where state or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

§ 325.335 Contingency Plan and Emergency Procedures.

(a) Purpose and Implementation of Contingency Plan.

- (1) Each owner or operator must have a contingency plan for his facility approved by the Texas Department of Health. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.
- (2) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(b) Content of Contingency Plan.

- (1) The plan must describe the actions facility personnel must take to comply with subsection (a) and (f) of this section in response to fires, explosions, or any unplanned sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.
- (2) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR Parts 112 or 1510 or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this section.
- (3) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services.
- (4) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator, and this list must be kept up-to-date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. For new facilities, this information must be supplied to the department at the time of start-up notification rather than at the time of permit application.
- (5) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, internal and external

communications and alarm systems, and decontamination equipment), where this equipment is required. This list must be kept up-to-date. In addition, the plan must include the location and a physical description of each item on the list and a brief outline of its capabilities.

- (6) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous wastes or fires).

(c) Copies of Contingency Plan.

- (1) A copy of the contingency plan and all revisions must be maintained at the facility; and
- (2) A copy of the plan and all revisions must be submitted to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.

(d) Amendment of Contingency Plan. The plan must be reviewed and immediately amended, if necessary, whenever:

- (1) The facility permit and/or applicable regulations are revised;
- (2) The plan fails in an emergency;
- (3) The facility changes--in its design, construction, operation, maintenance, or other circumstances--in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents or changes the response necessary in an emergency;
- (4) The list of emergency coordinators changes; or
- (5) The list of emergency equipment changes.

(e) Emergency Coordinator.

- (1) At all times, there must be at least one employee either on the facility 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.
- (2) This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location

and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

(f) Emergency Procedures.

- (1) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:
 - (A) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
 - (B) Notify appropriate local, county, and state authorities with designated response roles. If the emergency involves accidental spill or discharge of a hazardous substance, provide notification to the Texas Department of Water Resources as soon as possible in accord with the State of Texas Oil and Hazardous Substances Spill Contingency Plan.

Telephone Contact--

Normal: (512) 475-5695
Nights/Weekends: (512) 475-2651

- (2) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.
- (3) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g. , the effects of any toxic, irritating, or asphyxiating gases that are generated or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).
- (4) 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.
 - (A) 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 officials decide whether local areas should be evacuated; and

- (B) He must immediately notify either the government official designated as the on-scene coordinator for that geographical area or the National Response Center (using their 24-hour toll free number (800)424-8802). The report must include:
 - (i) Name and telephone number of reporter;
 - (ii) Name and address of facility;
 - (iii) Time and type of incident (e.g. , release, fire);
 - (iv) Name and quantity of material(s) involved, to the extent known;
 - (v) The extent of injuries, if any; and
 - (vi) The possible hazards to human health or the environment outside the facility.
- (5) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.
- (6) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment wherever this is appropriate.
- (7) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the owner or operator can demonstrate that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste for any hazardous waste removed from the facility and must manage it in accordance with §§ 325.291 - 325.299 of this title (relating to Generators).
- (8) The emergency coordinator must ensure that, in the affected area(s) of the facility:

- (A) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and
 - (B) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.
- (9) The owner or operator must notify the EPA regional administrator and appropriate state and local authorities that the facility is in compliance with paragraph (8) of this subsection before operations are resumed in the affected area(s) of the facility.
- (10) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the EPA regional administrator and the Texas Department of Health. The report must include:
- (A) Name, address, and telephone number of the owner or operator;
 - (B) Name, address, and telephone number of the facility;
 - (C) Date, time, and type of incident (e.g. , fire, explosion);
 - (D) Name and quantity of material(s) involved;
 - (E) The extent of injuries, if any;
 - (F) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
 - (G) Estimated quantity and disposition of recovered material that resulted from the incident.
- (g) Variance. The complexity and content of the contingency plan will depend on the type, quantity, and variety of waste handled by the facility and the type and complexity of the facility. Therefore, the Texas Department of Health will consider variance from any of the above requirements where it is demonstrated that such requirements are not applicable or are otherwise unnecessary.

§ 325.336 Manifest System, Record Keeping, and Reporting.

(a) Use of Manifest System. If a facility receives hazardous waste accompanied by a manifest, the owner or operator or his authorized agent must:

- (1) Sign and date each copy of the manifest to certify receipt of hazardous waste covered by the manifest.
- (2) Record any significant discrepancies in the manifest on each copy of the manifest. (It is not required that the owner or operator of the facility perform waste analysis required under subsection (b) of § 325.333 of this title (relating to General) before signing the manifest and giving it to the transporter. However, it is required that the owner or operator submit a letter to the Texas Department of Health reporting any unreconciled discrepancy discovered during later analysis.)
- (3) Immediately give the transporter at least one copy of the signed manifest.
- (4) No later than 30 days after delivery of the hazardous waste, send a copy of the signed manifest to the generator.
- (5) Retain at the facility a copy of each manifest for at least three years from the date of delivery of the hazardous waste.
- (6) If a facility receives from a rail or water (bulk shipment) transporter hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures), the owner or operator or his agent must:
 - (A) Sign and date each copy of the shipping paper to certify that the hazardous waste covered by the shipping paper was received;
 - (B) Record any significant discrepancies on the shipping paper (see paragraph (2) of this subsection);
 - (C) Immediately give the rail or water (bulk shipment) transporter at least one copy of the shipping paper;
 - (D) Within 30 days after the delivery, send a copy of the shipping paper to the generator; however, if the manifest is received within 30 days after the delivery, the owner or operator or his agent must sign and date the manifest and return it to the generator in lieu of the shipping paper; and

(E) Retain at the facility a copy of each shipping paper and manifest for at least three years from the date of the delivery.

(F) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of §§ 325.291 - 325.299 of this title (relating to Generators). The provisions of § 325.293 of this title (relating to Hazardous Waste Accumulation) are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of § 325.293 of this title (relating to Hazardous Waste Accumulation) only apply to owners or operators who are shipping hazardous waste which they generated at that facility.

(b) Manifest Discrepancies.

(1) Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are: for bulk waste, variations greater than 10% in weight; and for batch waste, any variation in piece count such as a discrepancy of one drum in a truckload. 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 on the manifest or shipping paper.

(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 Texas Department of Health a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue.

(c) Facility Operating Records.

(1) The owner or operator must keep a written operating record at his facility.

(2) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility.

(A) A description and the quantity of each hazardous waste received and the method and date of its treatment, storage, or disposal at the facility.

- (B) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers if the waste was accompanied by a manifest.
 - (C) Information on results of waste analyses and trial tests required by subsection (b) of § 325.333 of this title (relating to General) and as required in various sections of §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators).
 - (D) Summary reports and details of all incidents that require implementing the contingency plan required by § 325.335 of this title (relating to Contingency Plan and Emergency Procedures).
 - (E) Results of inspections required by subsection (d) of § 325.333 of this title (relating to General). (Note: These data need be kept only three years.)
 - (F) Cost estimates to close the facility and cost estimates for monitoring and maintenance after closing the facility.
 - (G) Monitoring, testing, or analytical data where required by various sections covered by §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators).
 - (H) Notices to all off-site generators as specified in § 325.333 of this title (relating to General).
- (d) Availability, Retention, and Disposition of Records.
- (1) All records, including plans, required under §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators) must be furnished upon request and made available at all reasonable times for inspection by any authorized representative of the Texas Department of Health or EPA.
 - (2) The specific retention period for all records required under §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators) is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Texas Department of Health or administrator of EPA.

- (3) A copy of records of waste disposal locations and quantities required under subsection (c)(2) of this section must be submitted to the Texas Department of Health and to local land authority upon closure of the facility.

(e) Reporting Requirements.

- (1) Annual Reports. The owner or operator must prepare and submit a single copy of an annual report as follows.
 - (A) The report shall be submitted for the preceding calendar year by March 1 of each year to the Bureau of Solid Waste Management, Texas Department of Health, 1100 West 49th Street, Austin, Texas 78756.
 - (B) The owner or operator shall use the Annual Waste Disposal Summary for the annual report prepared according to instructions on the form.
 - (C) Owners or operators of interim status facilities managing hazardous waste by surface impoundments, landfills, or land treatment shall include groundwater monitoring data, either as part of the report or appended to the report, required to be reported under subsection (e) of § 325.337 of this title (relating to Groundwater Monitoring Requirements for Interim Status Facilities).
 - (D) Owners or operators of general standard facilities managing hazardous waste by land disposal shall include groundwater monitoring data, either as part of the report or appended to the report as required under 40 CFR Part 264, Subpart F, pertaining to groundwater protection. (40 CFR 264, Subpart F, has been incorporated by reference into these regulations under § 325.349 of this title (relating to General Standards for Land Disposal Facilities).)
- (2) Monthly Waste Receipt Summary. The owner or operator must prepare and submit a single copy of a monthly summary as follows.
 - (A) A report of hazardous wastes received in which the shipment originated in the reporting month shall be submitted no later than the 25th day of the following month to: Bureau of Solid Waste Management, Texas Department of Health, 1100 West 49th Street, Austin, Texas 78756. (A negative report is not required.)
 - (B) The owner or operator shall use the Monthly Waste Receipt Summary Form prepared according to attached instructions.

- (3) Unmanifested Waste Report. If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest or shipping paper, then the owner or operator must prepare and submit a single copy of a report as follows.
- (A) The owner or operator shall submit the report no later than 15 days after receiving the waste to: Bureau of Solid Waste Management, Texas Department of Health, 1100 West 49th Street, Austin, Texas 78756.
 - (B) The report shall be prepared using EPA Forms 8700-13 and 8700-13B for an unmanifested waste report.
 - (C) An unmanifested waste report shall include the following information:
 - (i) The EPA Identification Number, name, and address of the facility;
 - (ii) The date the facility received the waste;
 - (iii) The EPA Identification Number, name, and address of the generator and the transporter, if available;
 - (iv) A description, Texas Municipal Waste Code Number as available from TDH, and the quantity of each unmanifested hazardous waste the facility received;
 - (v) The method of treatment, storage, or disposal for each hazardous waste;
 - (vi) The certification by the owner or operator of the facility or his authorized representative; and
 - (vii) A brief explanation of why the waste was unmanifested, if known. § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions) identifies quantities of hazardous waste, by criteria, which are excluded from manifest requirements. Where a facility accepts unmanifested hazardous waste, it is recommended that the owner or operator obtain from the generator a certification that the waste qualifies for exclusion. Otherwise, it is recommended that the owner or operator file an unmanifested waste report for the waste accepted.

- (4) Additional Reports. The owner or operator must submit to the department additional periodical reports as follows.
- (A) A report on releases, fires, and explosions as required by § 325.335 of this title (relating to Contingency Plan and Emergency Procedures).
 - (B) Other groundwater contamination and monitoring data as required by § 325.337 of this title (relating to Groundwater Monitoring Requirements for Interim Status Facilities) and § 325.349 of this title (relating to General Standards for Land Disposal Facilities).
 - (C) Facility closure as specified by § 325.338 of this title (relating to Closure and Post-Closure Requirements).
 - (D) Additional reports as required by 40 CFR Part 264, Subparts K-N, as referenced to and required by § 325.349 of this title (relating to General Standards for Land Disposal Facilities) and as required by §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators).
- (5) Report Retention Periods. The owner or operator must retain a copy of each annual report, each Monthly Waste Receipt Summary, and each unmanifested waste report for at least three years from due date for each report. The retention period is automatically extended during the course of any unresolved enforcement action regarding activities of the facility.

§ 325.337 Groundwater Monitoring Requirements for Interim Status Facilities.

(a) Applicability.

- (1) These regulations apply to owners and operators of interim status facilities. For general standard facilities, see § 325.349 of this title, (relating to General Standards for Land Disposal Facilities).
- (2) 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 paragraph (4) of this subsection.
- (3) Except as provided in paragraphs (4) and (5) of this subsection, the owner or operator must install, operate, and maintain a groundwater monitoring system which meets the requirement provided under subsection (b) of this section and must comply with requirements for sampling and analysis; preparation, evaluation, and response; and record keeping and reporting provided in subsections (c), (d), and (e) of this section. 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.
- (4) All or part of the groundwater monitoring requirements of this section 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 with a copy provided to the Texas Department of Health. This demonstration must be certified by a registered professional engineer and must establish the following:
 - (A) The potential for migration of hazardous waste constituents from the facility to the uppermost aquifer by an evaluation of:
 - (i) A water balance of precipitation, evapotranspiration, runoff, and infiltration; and
 - (ii) Unsaturated zone characteristics (i.e. , geologic materials, physical properties, and depth to groundwater).

- (B) 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:
 - (i) Saturated zone characteristics (i.e. , geologic materials, physical properties, and rate of groundwater flow); and
 - (ii) The proximity of the facility to water supply wells or surface water.
- (5) If an owner or operator assumes (or knows) that groundwater monitoring of indicator parameters in accordance with requirements of subsections (b) and (c) of this section would show statistically significant increases (or decreases in the case of pH) when evaluated in accordance with requirements of subsection (d)(2) of this section, he may install, operate, and maintain an alternate groundwater monitoring system (other than the one described in subsections (b) and (c) of this section). If the owner or operator does decide to use an alternate groundwater monitoring system, he must:
 - (A) Submit to the Bureau of Solid Waste Management, Texas Department of Health, a specific plan certified by a registered professional engineer which satisfies requirements under subsection (d)(4)(C) of this section for an alternate groundwater monitoring system;
 - (B) Initiate the determinations specified in subsection (d)(4)(D) of this section;
 - (C) Prepare and submit a written report in accordance with subsection (d)(4)(E) of this section;
 - (D) Continue to make the determinations specified in subsection (d)(4)(D) of this section on a quarterly basis until final closure of the facility; and
 - (E) Comply with the record keeping and reporting requirements under subsection (e)(2) of this section.
- (6) The groundwater monitoring requirements of this section may be waived with respect to any surface impoundment that:
 - (A) Is used to neutralize wastes which are hazardous solely because they exhibit the corrosivity characteristic under 40 CFR Part 261, Subpart C or are listed as hazardous wastes in 40 CFR Part 261, Subpart D only for this reason; and

- (B) 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 demonstration 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 professional engineer.

(b) Groundwater Monitoring System.

- (1) A groundwater monitoring system must be capable of yielding groundwater samples for analysis and must consist of:
 - (A) Monitoring wells (at least one) installed hydraulically upgradient (i.e. , in the direction of increasing static head) from the limit of the waste management area. Their number, locations, and depths must be sufficient to yield groundwater samples that are:
 - (i) Representative of background groundwater quality in the uppermost aquifer near the facility; and
 - (ii) Not affected by the facility.
 - (B) Monitoring wells (at least three) installed hydraulically downgradient (i.e. , in the direction of decreasing static head) at the limit of the waste management area. Their number, locations, and depths must ensure that they immediately detect any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.
- (2) Separate monitoring systems for each waste management component of a facility are not required provided that provisions for sampling upgradient and downgradient water quality will detect any discharge from the waste management area.
 - (A) In the case of a facility consisting of only one surface impoundment, landfill, or land treatment area, the waste management area is described by the waste boundary (perimeter).
 - (B) In the case of a facility consisting of more than one surface impoundment, landfill, or land treatment

area, the waste management area is described by an imaginary boundary line which circumscribes the several waste management components.

- (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 sample collection at depths where appropriate aquifer flow zones exist. The annular space (i.e. , the space between the bore hole and well casing) above the sampling depth must be sealed with a suitable material (e.g. , cement grout or bentonite slurry) to prevent contamination of samples and the groundwater.

(c) Sampling and Analysis.

- (1) The owner or operator must obtain and analyze samples from the installed groundwater monitoring system. The owner or operator must develop and follow a groundwater sampling and analysis plan. He must keep this plan at the facility. The plan must include procedures and techniques for:

- (A) Sample collection;
- (B) Sample preservation and shipment;
- (C) Analytical procedures; and
- (D) Chain of custody control.

- (2) The owner or operator must determine the concentration or value of the following parameters in groundwater samples in accordance with paragraphs (3) and (4) of this subsection:

- (A) Parameters characterizing the suitability of the groundwater as a drinking water supply.
- (B) Parameters establishing groundwater quality:
 - (i) Chloride
 - (ii) Iron
 - (iii) Manganese
 - (iv) Phenols
 - (v) Sodium
 - (vi) Sulfate

(These parameters are to be used as a basis for comparison in the event of a groundwater assessment required under subsection (d)(4) of this section.)

(C) Parameters used as indicators of groundwater contamination:

(i) pH

(ii) Specific Conductance

(iii) Total Organic Carbon

(iv) Total Organic Halogen

(3) The following procedures for well monitoring must be followed.

(A) The owner or operator must establish initial background concentrations or values of all parameters specified in paragraph (2) of this subsection. He must do this quarterly for one year.

(B) For each of the four indicator parameters specified in paragraph (2)(C) of this subsection, at least four replicate measurements must be obtained for each sample and the initial background arithmetic mean and variance must be determined by pooling the replicate measurements for the respective parameter concentrations or values in samples obtained from upgradient wells during the first year.

(4) After the first year, all monitoring wells must be sampled and the samples analyzed with the following frequencies:

(A) Samples collected to establish groundwater quality must be obtained and analyzed for the six parameters specified in paragraph (2)(B) of this subsection at least annually.

(B) Samples collected to indicate groundwater contamination must be obtained and analyzed for the four parameters specified in paragraph (2)(C) of this subsection at least semi-annually.

(5) Elevation of the groundwater surface at each monitoring well must be determined each time a sample is obtained.

(d) Preparation, Evaluation, and Response.

(1) The owner or operator must prepare an outline of a groundwater quality assessment program. The outline must

describe a more comprehensive groundwater monitoring program (than that described in subsections (b) and (c) of this section) capable of determining:

- (A) Whether hazardous waste or hazardous waste constituents have entered the groundwater;
 - (B) The rate and extent of migration of hazardous waste or hazardous waste constituents in the groundwater; and
 - (C) The concentrations of hazardous waste or hazardous waste constituents in the groundwater.
- (2) For each of the four indicator parameters under subsection (c)(2)(C) of this section, the owner or operator must calculate the arithmetic mean and variance based on at least four replicate measurements on each sample for each well monitored in accordance with requirements in subsection (c)(4)(B) of this section and compare these results with its initial background arithmetic mean. The comparison must consider individually each of the wells in the monitoring system and must use the Student's t-test at the 0.01 level of significance to determine statistically significant increases (and decreases, in the case of pH) over initial background.
- (3) Comparisons for upgradient and downgradient wells.
- (A) If the comparisons for the upgradient wells made under paragraph (2) of this subsection show a significant increase (or pH decrease), the owner or operator must submit this information in accordance with record keeping and reporting requirements under subsection (e) of this section.
 - (B) If the comparisons for downgradient wells made under paragraph (2) of this subsection show a significant increase (or pH decrease), the owner or operator must then immediately obtain additional groundwater samples from those downgradient wells where a significant difference was detected, split the sample in two, and obtain analyses of all additional samples to determine whether the significant difference was a result of laboratory error.
- (4) If the analyses performed under paragraph (3) of this subsection confirm the significant increase (or pH decrease):
- (A) The owner or operator must provide written notice to the Texas Department of Health within seven days of the date of such confirmation that the facility may

be affecting groundwater quality; and

- (B) Within 15 days after the notification, the owner or operator must develop and submit to the Bureau of Solid Waste Management, Texas Department of Health, a specific plan based on the outline required under paragraph (1) of this subsection and certified by a registered professional engineer for a groundwater quality assessment program at the facility.
- (C) The plan to be submitted under subsection (a)(5)(A) of this section or subparagraph (B) of this paragraph must specify:
 - (i) The number, location, and depth of wells;
 - (ii) Sampling and analytical methods for those hazardous wastes or hazardous waste constituents in the facility;
 - (iii) Evaluation procedures, including any use of previously gathered groundwater quality information; and
 - (iv) A schedule of implementation.
- (D) The owner or operator must implement the groundwater quality assessment plan which satisfies the requirements of subparagraph (C) of this paragraph, and at a minimum, determine:
 - (i) The rate and extent of migration of the hazardous waste or hazardous waste constituents in the groundwater; and
 - (ii) The concentrations of the hazardous waste or hazardous waste constituents in the groundwater.
- (E) The owner or operator must make his first determination under subparagraph (D) of this paragraph as soon as technically feasible and within 15 days after that determination submit to the Texas Department of Health a written report containing an assessment of the groundwater quality.
- (F) If the owner or operator determines, based on the results of the first determination under subparagraph (D) of this paragraph, that no hazardous waste or hazardous waste constituents from the facility have entered the groundwater, then he may reinstate the indicator evaluation program described in subsection (c) of this section, and paragraph (2) of this subsection. If the owner or

operator reinstates the indicator evaluation program, he must so notify the Texas Department of Health in the written (15-day) report submitted under subparagraph (E) of this paragraph.

(G) If the owner or operator determines, based on the first determination under subparagraph (D) of this paragraph, that hazardous waste or hazardous waste constituents from the facility have entered the groundwater, then:

(i) He must continue to make the determinations required under subparagraph (D) of this paragraph on a quarterly basis until final closure of the facility if the groundwater quality assessment plan was implemented prior to final closure of the facility; or

(ii) He may cease to make the determinations required under subparagraph (D) of this paragraph if the groundwater quality assessment plan was implemented during the post-closure care period.

(5) Notwithstanding any other provision under this section, any groundwater assessment to satisfy the requirements of paragraph (4)(D) of this subsection which is initiated prior to final closure of the facility must be completed and reported in accordance with paragraph (4)(E) of this subsection.

(6) Unless the groundwater is monitored to satisfy the requirements of paragraph (4)(D) of this subsection, the owner or operator at least annually must evaluate the data on groundwater surface elevations obtained under subsection (c)(5) of this section to determine whether the requirements under subsection (b)(1) of this section for locating the monitoring wells continue to be satisfied. If the evaluation shows that subsection (b)(1) of this section is no longer satisfied, the owner or operator must immediately modify the number, location, or depth of the monitoring wells to bring the groundwater monitoring system into compliance with this requirement.

(e) Record Keeping and Reporting.

(1) Unless the groundwater is monitored to satisfy the requirements of subsection (d)(4)(D) of this section, the owner or operator must:

(A) Keep records of the analyses required under subsection (c)(3) and (4) of this section; the associated groundwater surface elevations required

under subsection (c)(5) of this section; and the evaluations required under subsection (d)(2) of this section throughout the active life of the facility and, for disposal facilities, throughout the post-closure care period as well.

(B) Report the following groundwater monitoring information to the Bureau of Solid Waste Management, Texas Department of Health:

(i) During the first year when initial background concentrations are being established for the facility, concentrations or values of the parameters listed in subsection (c)(2)(A) of this section 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.

(ii) Annually, concentrations or values of the four parameters listed in subsection (c)(2)(C) of this section for each groundwater monitoring well along with the required evaluations for these parameters under subsection (d)(2) of this section. The owner or operator must separately identify any significant differences from initial background found in the upgradient wells in accordance with subsection (d)(3)(A) of this section. During the active life of the facility, this information must be submitted as part of the annual report required under subsection (e) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting).

(iii) As part of the required annual report, results of the evaluation of groundwater surface elevations under subsection (d)(6) of this section and a description of the response to that evaluation where applicable.

(2) If the groundwater is monitored to satisfy the requirements of subsection (d)(4)(D) of this section, the owner or operator must:

(A) Keep records of the analyses and evaluations specified in the plan, which satisfies the requirements of subsection (d)(4)(C) of this section, throughout the active life of the facility and, for disposal facilities, throughout the post-closure care period as well; and

- (B) Annually, until final closure of the facility, submit to the Texas Department of Health a report containing 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 subsection (e) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting).

- (D) The closure plan must identify steps necessary to completely or partially close the facility at any point during its intended operating life and to completely close the facility at the end of its intended operating life. The closure plan must include:
- (i) A description of how and when the facility will be partially closed, if applicable, and finally closed. The description must also explain how the closure performance standard in this section will be met and how specific closure requirements for facilities regulated under §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators) will be met.
 - (ii) An estimate of the maximum inventory of wastes in storage and in treatment at any given time during the life of the facility.
 - (iii) A description of the steps needed to decontaminate facility equipment during closure.
 - (iv) An estimate of the expected year of closure and a schedule for final closure. The schedule must include, at a minimum, the total time required to close the facility and the time required for intervening closure activities which will allow tracking of the progress of closure. (For example, in the case of a landfill, estimates of the time required to treat and dispose of all waste inventory and of the time required to place a final cover must be included.)
- (2) Amendment of Closure Plan. The owner or operator may amend his closure plan at any time during the active life of the facility. (The active life of the facility is that period during which wastes are periodically received.)
- (A) The owner or operator must amend his plan whenever changes in operating plans or facility design affect the closure plan; and
 - (B) Whenever there is a change in the expected year of closure.
 - (C) Interim status facility owners and operators must amend the plan within 60 days of the changes set forth in subparagraphs (A) and (B) of this paragraph.

§ 325.338 Closure and Post-Closure Requirements.

(a) Applicability.

- (1) Closure requirements in this section apply to owners and operators of all municipal solid waste facilities that store, process, or dispose of hazardous waste regulated under § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions).
- (2) Post-closure requirements in this section apply to owners and operators of:
 - (A) All municipal solid waste facilities that dispose of hazardous waste;
 - (B) Permitted piles and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that these sections are made applicable to such facilities in 40 CFR § 264.228 and § 264.258 dealing with closure of surface impoundments and piles as referenced in § 325.349 of this title (relating to General Standards for Land Disposal Facilities).

(b) Closure Performance Standard. The owner or operator must close his facility in a manner that:

- (1) Minimizes the need for further maintenance; and
- (2) Controls, minimizes, or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface waters, or the atmosphere.

(c) Closure Plan and Amendment of Plan.

- (1) Closure Plan. The owner or operator of a hazardous waste management facility must have a written closure plan.
 - (A) The owner or operator of an interim status facility must have a plan by May 19, 1981.
 - (B) A copy of the closure plan and any revisions must be kept at the facility readily available for review by regulatory agency personnel until certification of closure for the facility is established.
 - (C) The owner or operator of a general standards facility must submit the plan to the Texas Department of Health when the owner or operator of a hazardous waste management facility applies for a permit using Part B of the RCRA application forms.

- (D) When the owner or operator requests a permit modification to authorize a change in operating plans or facility design, he must request a modification of the closure plan at the same time.
- (E) If a permit modification is not needed to authorize the change in operating plans or facility design, the request for modification of the closure plan must be made within 60 days after the change in plans or design occurs. (Changes in estimates of maximum inventory and of the estimated year of closure may be made as minor permit modifications.)
- (3) Notification of Closure. The owner or operator must notify the Texas Department of Health at least 180 days prior to the date he expects to begin closure of his facility. The date when he expects to begin closure should be within 30 days after the date on which he expects to receive the final volume of wastes. If the facility's permit or interim status is terminated (except when a permit is issued to the facility simultaneously with termination of interim status) or if the facility is otherwise ordered by judicial decree, compliance order under Section 3008 of RCRA, provisions of the Solid Waste Disposal Act, Article 4477-7, V.T.C.S., or by other state laws or regulations to cease receiving wastes or to close, then the requirement of this paragraph does not apply and the owner or operator of an interim status facility shall submit his closure plan to the department no later than 15 days after the termination. However, the owner or operator must close the facility in accordance with deadline requirements established in subsection (d) of this section.
- (4) Opportunity for Comments. For an interim status facility, the department will provide the owner or operator and the public, through a newspaper notice to be published at the expense of the owner or operator, the opportunity to submit written comments on the plan and request modifications to the plan within 30 days of the date of the notice. The department will also, in response to a request or at its own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning a closure plan. The department will give public notice as provided in § 325.350 of this title (relating to Permits) 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 the two notices may be combined. The department will approve, modify, or disapprove the plan within 90 days of its receipt. If the department does not approve the plan, the owner or operator must modify the plan or submit a new plan for approval within 30 days. The department

will approve or modify this plan in writing within 60 days. If the department modifies the plan, this modified plan becomes the approved closure plan. The department's decision must assure that the approved closure plan is consistent with this section and the applicable closure requirements of facilities regulated under §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators). A copy of the modified plan must be mailed to the owner or operator.

(d) Time Deadlines for Closure.

- (1) Within 90 days after receiving the final volume of hazardous wastes, or within 90 days after approval of an interim status facility plan if that is later, the owner or operator must treat, remove from the site, or dispose of on-site all hazardous wastes in accordance with the approved closure plan. The Texas Department of Health may approve a longer period if the owner or operator demonstrates that:
 - (A) The foregoing requirements will of necessity take longer than 90 days to complete; or
 - (B) The facility has the capacity to receive additional wastes.
 - (i) There is a reasonable likelihood that a person other than the current owner or operator will recommence operation of the facility; and
 - (ii) Closure of the facility would be incompatible with continued operation.
 - (C) He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but inactive facility.
- (2) Within 180 days after receiving the final volume of waste, or for an interim status facility, within 180 days after approval of the closure plan if that is later, the owner or operator must complete facility closure activities in accordance with the approved closure plan. The Texas Department of Health may approve a longer closure period if the owner or operator can demonstrate that completing closure requirements will of necessity take longer than 180 days or that the conditions explained in paragraphs (1)(B) and (1)(C) of this subsection will apply. Any extension of the 90- or 180-day time periods may be made as a minor modification of the facility permit. If operation of a facility is recommenced, the Texas Department of Health may defer completion of closure activities until the new operation is terminated.

- (e) Disposal or Decontamination of Equipment. When closure is completed, all facility equipment and structures must have been properly disposed of or decontaminated by removing all hazardous waste and residues. At closure, as throughout the operating period, unless the owner or operator can demonstrate that solid waste removed from a facility area is not a hazardous waste as identified by § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), the owner or operator becomes a generator of hazardous waste for any waste removed from the facility and must manage it in accordance with §§ 325.291 - 325.299 of this title (relating to Generators) and other applicable requirements of this subchapter.
- (f) Certification of Closure. When closure is completed, the owner or operator must submit to the Texas Department of Health certification both by the owner or operator and by an independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan.
- (g) Post-Closure Care and Use of Property.
 - (1) Post-closure care must continue for 30 years after the date of completing facility closure and must consist of at least the following:
 - (A) Groundwater monitoring and reporting as applicable, see § 325.337 of this title (relating to Groundwater Monitoring Requirements for Interim Status Facilities) or 40 CFR Part 264, as referred to in § 325.349 of this title (relating to General Standards for Land Disposal Facilities); and
 - (B) Maintenance of monitoring and waste containment systems as applicable.
 - (2) In the case of a permitted facility, the Texas Department of Health may reduce the 30-year period of post-closure care during the 180-day period preceding facility closure or at any time thereafter, if it determines that the reduced period is sufficient to protect human health and the environment.
 - (3) In the case of a permitted facility, the Texas Department of Health may extend that period before the 30-year post-closure care period is due to expire, if the department determines that a 30-year period does not protect human health and the environment.
 - (4) Except for interim status facilities for which the owners or operators shall comply with the procedures of subsection (h)(3) of this section, the department may require, at closure of a facility, continuation of any of

the security requirements, see subsection (c) of § 325.333 of this title (relating to General), during part or all of the post-closure care period when:

- (A) Wastes may remain exposed after closure is completed; or
 - (B) Access by the public or domestic livestock may be hazardous to human health.
- (5) Post-closure use of property on or in which hazardous waste remains after closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of any containment system or the function of the facility's monitoring systems unless the Texas Department of Health finds that the disturbance:
- (A) Is necessary to the proposed use of the property and will not increase the potential hazard to human health or the environment; or
 - (B) Is necessary to reduce a threat to human health or the environment.
- (6) All post-closure care activities must be in accordance with the post-closure plan required by subsection (h) of this section.
- (h) Post-Closure Plan and Amendment of Plan.
- (1) Post-Closure Plan. The owner or operator of a hazardous waste management disposal facility must have a written post-closure plan.
 - (A) A copy of the post-closure plan and any revisions must be kept at the facility readily available for review by regulatory agency personnel until the post-closure care period begins.
 - (B) A copy of the post-closure plan must be submitted for general standards facilities which dispose of hazardous waste, including certain piles and certain surface impoundments from which the owner or operator intends to remove the wastes at closure to the Texas Department of Health when the owner or operator of a hazardous waste disposal facility applies for a permit using Part B of the RCRA application forms. Owners or operators of interim status facilities must have a post-closure plan by May 19, 1981.
 - (C) The post-closure plan must identify the activities which will be carried on after closure of the facility and include at least:

- (i) A description of the planned groundwater monitoring activities and frequencies at which they will be performed.
 - (ii) A description of the planned maintenance activities and frequencies at which they will be performed to ensure:
 - (I) The integrity of the cap and final cover or other containment structures where applicable; and
 - (II) Proper functioning of the facility monitoring equipment.
 - (iii) The name, address, and phone number of the person or office to contact about the disposal facility during the post-closure period. This person or office must keep an updated post-closure plan during the post-closure period.
- (2) Amendment of Post-Closure Plan. The owner or operator may amend his post-closure plan at any time during the active life of the disposal facility or during the post-closure care period.
 - (A) The owner or operator must amend the post-closure plan whenever there are changes in operating plans or facility design or events occur during the active life of the facility or during the post-closure period which affect the post-closure plan.
 - (B) The owner or operator must amend the post-closure plan whenever there is a change in the expected year of closure of a permitted disposal facility.
 - (C) For interim status facilities, the plan must be amended within 60 days after the changes or events in subparagraphs (A) and (B) of this paragraph occur.
 - (D) When a permit modification is requested for a permitted facility during the active life of the facility to authorize a change in operating plans or facility design, modification of the post-closure plan must be requested at the same time.
 - (E) In all other cases (i.e. , when a permit modification is not involved) a request for modification of a post-closure plan must be made within 60 days after a change in operating plans or facility design or the events which affect the post-closure plan.

- (3) **Post-Closure Plan Submission Schedule.** The owner or operator of an interim status disposal facility must submit his post-closure plan to the department at least 180 days before the date he expects to begin closure. The date when he expects to begin closure should be immediately after the date on which he expects to receive the final volume of wastes. The owner or operator must submit his closure plan to the department no later than 15 days after:
- (A) Termination of interim status (except when a permit is issued to the facility simultaneously with termination of interim status); or
 - (B) Issuance of a judicial decree or compliance order under § 3008 of RCRA, provisions of the Solid Waste Disposal Act, Article 4477-7, V.T.C.S., or by other state laws or regulations to cease receiving wastes or close. The date when closure commences should be within 30 days after the date on which the owner or operator expects to receive the final volume of wastes.
- (4) **Opportunity for Comments.** Through a newspaper notice to be published at the expense of the owner or operator, the department will provide the owner or operator of an interim status facility and the public the opportunity to submit written comments on the plan and request modifications of the plan, including modification of the 30-year post-closure period required in subsection (g) of this section, within 30 days of the date of the notice. The department may also, in response to a request or at its own discretion, hold a public hearing whenever a hearing might clarify one or more issues concerning the post-closure plan. The department 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 department will approve, modify, or disapprove the plan within 90 days of its receipt. If the department does not approve the plan, the owner or operator must modify the plan or submit a new plan for approval within 30 days. The department will approve or modify this plan in writing within 60 days. If the department modifies the plan, this modified plan becomes the approved post-closure plan. The department must base its decision upon the criteria required of petitions under paragraph (6)(A)(i) of this subsection. A copy of this modified plan must be mailed to the owner or operator.
- (5) **Post-Closure Plan Amendment During Post-Closure Period.** The owner or operator of an interim status facility may amend his post-closure plan during the post-closure care

period. The owner or operator must amend his plan any time changes in monitoring or maintenance plans or events which occur during the post-closure care period affect the post-closure plan. The owner or operator must petition the department to allow the plan to be modified within 60 days of the changes or events under the procedures of paragraph (6) of this subsection.

(6) Interim Status Facility Post-Closure Plan Modification. The post-closure plan (or period) may be modified during the post-closure care period or at the end of the post-closure care period in either of the following ways.

(A) The owner or operator or any member of the public may petition the department to extend or reduce the post-closure care period based on cause or to alter the requirements of the post-closure care period based on cause.

(i) The petition must include evidence demonstrating that:

(I) The secure nature of the facility makes the post-closure care requirement(s) unnecessary or supports reduction of the post-closure care period specified in the current post-closure plan (e.g. , leachate or groundwater monitoring results; characteristics of the waste; application of advanced technology; or alternative disposal, treatment, or reuse techniques indicate that the facility is secure); or

(II) The requested extension in the post-closure care period or alteration of post-closure care requirements is necessary to prevent threats to human health and the environment.

(ii) These petitions will be considered by the department only when they present new and relevant information not previously considered by the department. Whenever the department is considering a petition, the department will provide the owner or operator and the public, through a newspaper notice published at the expense of the owner or operator, the opportunity to submit written comments within 30 days of the date of the notice. The department will also, in response to a request or at its own discretion, hold a public hearing whenever a hearing might clarify one or more issues concerning the post-closure plan. The

department will give the public notice, published at the expense of the owner or operator, 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. After considering the comments, the department will issue a final determination based upon the criteria set forth in clause (i) of this subparagraph.

- (iii) If the department denies the petition, the department will send the petitioner a brief written response giving a reason for the denial.
- (B) The department may tentatively decide to modify the post-closure plan if it deems it necessary to prevent threats to human health and the environment. The department may propose to extend or reduce the post-closure care period based on cause or alter the requirements of the post-closure care period based on cause.
 - (i) The department will provide the owner or operator and the affected public, through a newspaper notice, the opportunity to submit written comments within 30 days of the date of the notice and the opportunity for a public hearing as in subparagraph (A)(ii) of this paragraph. After considering the comments, the department will issue a final determination.
 - (ii) The department will base its final determination upon the same criteria as required for petitions under subparagraph (A)(i) of this paragraph. A modification of the post-closure plan may include, where appropriate, the temporary suspension rather than permanent deletion of one or more post-closure care requirements. At the end of the specified period of suspension, the department would then determine whether the requirement(s) should be permanently discontinued or reinstated to prevent threats to human health and the environment.
- (i) Notice to Local Land Authority. Within 90 days after closure is completed, the owner or operator of a disposal facility must submit to the local zoning authority or the authority with jurisdiction over local land use and to the Texas Department of Health a survey plat indicating the location and dimensions of landfill cells or other disposal areas with respect to permanently surveyed benchmarks. This plat must be

prepared and certified by a professional land surveyor. The plat filed with the local zoning authority or the authority with jurisdiction over local land use must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the site as specified in subsection (g)(5) of this section. In addition, the owner or operator must submit to the local zoning authority or the authority with jurisdiction over local land use and to the Texas Department of Health a record of the type, location, and quantity of hazardous wastes disposed of within each cell or area of the facility. For wastes disposed of before these regulations were promulgated, the owner or operator must identify the type, location, and quantity of the wastes to the best of his knowledge and in accordance with any records he has kept. Any changes in the type, location, or quantity of hazardous wastes disposed of within each cell or area of the facility that occur after the survey plat and record of wastes have been filed must be reported to the local zoning authority or the authority with jurisdiction over local land use and to the Texas Department of Health.

(j) Notice in Deed to Property.

- (1) The owner of the property on which a disposal facility is located must record, in accordance with state law, a notation on the deed to the facility property or on some other instrument which is normally examined during title search that will in perpetuity notify any potential purchaser of the property that:
 - (A) The land has been used to manage hazardous wastes;
 - (B) Further use of the land is subject to restrictions explained under subsection (g)(5) of this section; and
 - (C) The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or area of the facility, required in subsection (i) of this section, have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Texas Department of Health.
- (2) If at any time the owner or operator or any subsequent owner of the land upon which a hazardous waste facility was located removes the waste and waste residues, the liner, if any, and all contaminated underlying and surrounding soil, he may remove the notation on the deed to the facility property or other instrument normally examined during title search or he may add a notation to the deed or instrument indicating the removal of the waste. In either case, the Texas Department of Health shall be advised of the action. On removing the waste

and waste residues, the liner, if any, and the contaminated soil, the owner or operator, unless he can demonstrate that any solid waste removed is not a hazardous waste as set forth in § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), becomes a generator of hazardous waste for any waste removed from the facility and must manage it in accordance with all applicable requirements of §§ 325.291 - 325.299 of this title (relating to Generators.)

§ 325.339 Financial Requirements.

(a) Except as otherwise provided in this section and to the extent consistent with the Solid Waste Disposal Act, Article 4477-7, V.T.C.S., and the rules of this chapter, the department adopts by reference the following EPA regulations:

(1) 40 CFR Part 264, Subpart H, Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities--Financial Requirements.

(A) § 264.140 Applicability, April 7, 1982, as amended July 26, 1982.

(B) § 264.141 Definitions of Terms Used in this Subpart, April 16, 1982.

(C) § 264.142 Cost Estimate for Closure, April 7, 1982, as amended July 26, 1982.

(D) § 264.143 Financial Assurance for Closure, April 7, 1982.

(E) § 264.144 Cost Estimate for Post-Closure Care, April 7, 1982, as amended July 26, 1982.

(F) § 264.145 Financial Assurance for Post-Closure Care, April 7, 1982, as amended July 26, 1982.

(G) § 264.146 Use of a Mechanism for Financial Assurance of Both Closure and Post-Closure Care, April 7, 1982.

(H) § 264.147 Liability Requirements, April 16, 1982, as amended July 1, 1982, July 13, 1982, and June 30, 1983.

(I) § 264.148 Incapacity of Owners or Operators, Guarantors, or Financial Institutions, April 7, 1982.

(2) 40 CFR Part 265, Subpart H, Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities--Financial Requirements.

(A) § 265.140 Applicability, April 7, 1982.

(B) § 265.141 Definition of Terms as Used in this Subpart, April 16, 1982.

(C) § 265.142 Cost Estimate for Closure, April 7, 1982.

- (D) § 265.143 Financial Assurance for Closure, April 7, 1982.
 - (E) § 265.144 Cost Estimate for Post-Closure Care, April 7, 1982.
 - (F) § 265.145 Financial Assurance for Post-Closure Care, April 7, 1982.
 - (G) § 265.146 Use of a Mechanism for Financial Assurance of both Closure and Post-Closure Care, April 7, 1982.
 - (H) § 265.147 Liability Requirements, April 16, 1982, as amended, July 1, 1982, July 13, 1982, and June 30, 1983.
 - (I) § 265.148 Incapacity of Owners or Operators, Guarantors, or Financial Institutions, April 7, 1982.
- (3) 40 CFR Part 264, Subpart H, Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities--Financial Requirements, § 264.151 Wording of Instruments, April 7 and 16, 1982, as amended and corrected on April 27, 1982, May 10, 1982, and July 1, 1982; except that the following terms will be used where appropriate in lieu of the terms contained in this paragraph unless the context of the regulation indicates otherwise.
- (A) Texas Department of Health (TDH) will be used in lieu of U.S. Environmental Protection Agency (EPA).
 - (B) State of Texas will be used in lieu of United States Government.
 - (C) Solid Waste Disposal Act, Article 4477-7, V.T.C.S., will be used in lieu of Resource Conservation and Recovery Act of 1976, as amended.
- (b) Where the term "regional administrator" is used in the federal rules and regulations adopted under paragraphs (1), (2), and (3) of subsection (a) of this section, the reference is more properly made, for purposes of state law, to the commissioner of health, Texas Department of Health or to the department, consistent with the duties and responsibilities of the commissioner of health and delegated authorities within the department.
- (c) The adopted federal regulations are applicable as follows.
- (1) Regulations adopted pursuant to subsection (a)(1) of this section are applicable to owners and operators of general standard facilities.

- (2) Regulations adopted pursuant to subsection (a)(2) of this section are applicable to owners and operators of interim status facilities.
- (3) Regulations adopted pursuant to subsection (a)(3) of this section are applicable to owners and operators of both general standard and interim status facilities.
- (d) Where federal rules and regulations adopted by reference under subsection (a) of this section refer to or cite other federal rules and regulations not so adopted, the equivalent department regulations apply. The following examples are provided and if this list does not correlate all referenced federal rules and regulations with applicable department regulations, then the owner or operator shall comply with the federal rule or regulation or obtain the applicable regulation from the department.

Federal Rule/Regulation	-	Applicable Department Regulation of this Title
(1) 40 CFR § 264.1	-	§ 325.331 Purpose and Scope § 325.332 Applicability
(2) 40 CFR §§ 264.111-264.115	-	§ 325.338 Closure and Post-Closure Requirements
(3) 40 CFR § 264.112	-	§ 325.338 Closure and Post-Closure Requirements
(4) 40 CFR §§ 264.117-264.120	-	§ 325.338 Closure and Post-Closure Requirements
(5) 40 CFR § 264.178	-	§ 325.340 Use and Management of Containers
(6) 40 CFR § 264.197	-	§ 325.341 Tanks
(7) 40 CFR § 264.228	-	§ 325.349 General Standards for Land Disposal Facilities
(8) 40 CFR § 264.258	-	§ 325.349 General Standards for Land Disposal Facilities
(9) 40 CFR § 264.280	-	§ 325.349 General Standards for Land Disposal Facilities
(10) 40 CFR § 264.310	-	§ 325.349 General Standards for Land Disposal Facilities

- (11) 40 CFR § 264.351 - § 325.346 Incinerators
- (12) 40 CFR Part 264, Subpart G - § 325.338 Closure and Post-Closure Requirements
- (13) 40 CFR § 270.41(a)(5)(iii) - § 325.350 Permits
- (14) 40 CFR § 270.14 - 270.29 - § 325.350 Permits
- (15) 40 CFR § 124.5 - § 325.350 Permits
- (16) 40 CFR § 265.1 - § 325.331 Purpose and Scope
§ 325.332 Applicability
- (17) 40 CFR § 265.117 - 265.120 - § 325.338 Closure and Post-Closure Requirements
- (18) 40 CFR § 265.112 - § 325.338 Closure and Post-Closure Requirements
- (19) 40 CFR § 265.115 - § 325.338 Closure and Post-Closure Requirements
- (20) § 3008 RCRA - The Solid Waste Disposal Act,
Article 4477-7, V.T.C.S., as amended
- (21) Closure Requirements of 40 CFR Part 264 - § 325.338 Closure and Post-Closure Requirements

(e) The federal regulations adopted by reference in this section are indexed and filed in the Bureau of Solid Waste Management, Texas Department of Health office, located at 1100 West 49th Street, Austin, Texas 78756, and are available for public inspection during regular working hours.

§ 325.340 Use and Management of Containers.

- (a) **Applicability.** These requirements apply to owners and operators of all municipal solid waste facilities that store containers of hazardous waste regulated under § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions) until such time as a facility is determined by the department to be deficient and does not qualify for permitted status and is subject to enforcement action. (If a hazardous waste is removed from a container, the residue remaining in the container is not considered hazardous waste providing the container meets exception criteria for being empty as explained under subsection (d) of § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions)).
- (b) **Condition of Containers.** If a container holding hazardous waste is not in good condition (e.g., severely rusted, apparent structural defects) or if it begins to leak, the owner or operator must transfer the hazardous waste from this deficient container to a container that is in good condition or manage the waste in some other way that complies with requirements in §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators).
- (c) **Compatibility of Waste with Container.** The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored so that the ability of the container to contain the waste is not impaired.
- (d) **Management of Containers.**
 - (1) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.
 - (2) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak. (Reuse of containers in transportation is governed by U.S. Department of Transportation regulations, including those set forth in 49 CFR § 173.28.)
 - (3) The contents of the container shall be clearly identified on the container.
- (e) **Inspection of Container Storage Areas.** At least weekly, the owner or operator must inspect areas where containers are stored looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors.

(f) Containment System.

- (1) Container storage areas must have a containment system that is capable of collecting and holding spills, leaks, and precipitation. The containment system must:
 - (A) Have a base underlying the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated rainfall until the collected material is detected and removed;
 - (B) Be designed for efficient drainage so that standing liquid does not remain on the base longer than one hour after a leakage or precipitation event, unless the containers are elevated or in some other manner are protected from contact with accumulated liquids; and
 - (C) Have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater.
- (2) Run-on into the containment system must be prevented unless this requirement is specifically waived in the facility permit. The requirement will be waived only after a determination is made by the permitting agency that the containment system has sufficient excess capacity, in addition to that required in paragraph (1)(C) of this subsection, to accommodate any run-on which might enter the system.
- (3) Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system. If the material collected in a containment system can be determined to be hazardous waste, it must be managed in accordance with all applicable requirements in this section. If material collected in a containment system is discharged through a point source to waters of the United States, it is subject to requirements of Section 402 of the Clean Water Act, as amended.
- (4) Storage areas that store containers holding only hazardous wastes that do not contain free liquids need not have a containment system as defined in paragraphs (1), (2), and (3) of this subsection provided that:
 - (A) The storage area is sloped or is otherwise designed and operated to drain and remove liquids resulting from precipitation, or

- (B) The containers are elevated or are otherwise protected from contact with accumulated liquid.
- (g) Special Requirements for Ignitable or Reactive Waste. Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from and inside the facility's property line. See subsection (f) of § 325.333 of this title (relating to General) for precautionary requirements concerning handling of ignitable or reactive waste.
- (h) Special Requirements of Incompatible Wastes.
- (1) Incompatible wastes, or incompatible wastes and materials --see 40 CFR Part 264 or Part 265, Appendix V, as adopted by reference in subsection (f) of § 325.333 of this title (relating to General)--must not be placed in the same container unless precautionary requirements under subsection (f) of § 325.333 of this title (relating to General) are complied with.
- (2) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material, unless precautionary requirements under subsection (f) of § 325.333 of this title (relating to General) are complied with. As required by subsection (b) of § 325.333 of this title (relating to General), the waste analysis plan must include analyses needed to comply with this section. Also, subsection (f)(4) of § 325.333 of this title (relating to General) requires wastes analyses, trial tests, or other documentation to assure compliance with subsection (f)(3) of § 325.333 of this title (relating to General). As required by subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting), the owner or operator must place the results of each waste analysis and trial test and any documented information in the operating record of the facility.
- (3) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.
- (i) Closure of Container Storage Areas. At closure of a container storage area, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, container liners, storage bases, and soil contaminated with or containing hazardous waste or hazardous waste residues must be decontaminated or removed. At closure, as throughout the operating period, unless the owner or operator can demonstrate that solid waste removed from the storage area containment system is not a hazardous waste as

set forth in § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), the owner or operator becomes a generator of hazardous waste for any waste removed from the facility and must manage it in accordance with §§ 325.291 - 325.299 of this title (relating to Generators) and other applicable requirements of this subchapter.

§ 325.341 Tanks.

(a) Applicability.

- (1) These requirements apply to owners and operators of municipal solid waste facilities that use tanks for storage, treatment, or processing of hazardous waste regulated under § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions) until such time as a facility is determined by the department to be deficient and does not qualify for permitted status and is subject to enforcement action.
- (2) These requirements apply to tanks which are above-ground, and to partially or fully below-ground tanks which can be entered for inspection from the surface. Tanks which are partially or fully below-ground and cannot be entered for inspection will not be permitted for use for storage, treatment, or processing of hazardous waste, but may continue to operate under interim status.

(b) Design Requirements for Tanks.

- (1) Tanks must have sufficient shell strength to ensure that they do not collapse or rupture.
- (2) To ensure that original margins for corrosion or erosion are not exceeded, tanks must be designed and constructed to maintain a minimum shell thickness throughout the operating life of the tank which will assure sufficient shell strength.
- (3) Closed tanks must have pressure release controls or vents.
- (4) As part of the permit application, owners and operators must submit information as to the design standards used, or to be used, in constructing a tank.
 - (A) This requirement may be satisfied by reference to design standards published by the American Petroleum Institute, the Underwriters Laboratories, the American Society of Mechanical Engineers, the American Concrete Institute, or the American Water Works Association.
 - (B) When a published design standard is not available, this requirement may be satisfied by submission of plans and specifications prepared by a registered professional engineer which will allow for evaluation of the foundation and structural support of the tank, pressure controls, and tightness of seams. The evaluation will include consideration of specified height, width, materials of construction,

and specific gravity of waste to be placed in the tank.

- (c) General Operating Requirements for Tanks. Wastes and other materials (e.g. , treatment reagents) which are incompatible with the tank construction material must not be placed in the tank unless the tank is protected from accelerated corrosion, erosion, or abrasion through the use of:
 - (1) An inner liner or coating which is compatible with the waste or material and which is free of leaks, cracks, holes, or other deterioration; or
 - (2) Alternative means of protection (e.g. , cathodic protection or corrosion inhibitors).
 - (3) The owner or operator must use appropriate controls and practices to prevent overfilling. These must include:
 - (A) Controls to prevent overfilling (e.g. , waste feed cutoff system or by-pass system to a standby tank); and
 - (B) For uncovered tanks, maintenance of sufficient freeboard to prevent overtopping by wave or wind action or by precipitation.
- (d) Waste Analysis and Trail Tests. In addition to the waste analysis required by subsection (b) of § 325.333 of this title (relating to General), whenever a tank is to be used to chemically treat or store a hazardous waste which is substantially different from waste previously treated or stored in that tank or chemically treat hazardous waste with a substantially different process than any previously used in that tank, the owner or operator must, before treating or storing the different waste or using the different process:
 - (1) Conduct waste analyses and trial treatment or storage tests (e.g. , bench scale or pilot plant scale tests); or
 - (2) Obtain written, documented information on similar storage or treatment of similar waste under similar operating conditions to show that this proposed treatment or storage will meet requirements of subsection (f) of § 325.333 of this title (relating to General) and will not cause the tank or its inner liner to rupture or leak before the end of its intended life. As required by subsection (b) of § 325.333 of this title (relating to General), the waste analysis plan must include analyses needed to comply with subsections (h) and (i) of this section. As required by subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping,

and Reporting), the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.

(e) Inspection Requirements for Tanks.

(1) Daily - The owner or operator must inspect:

- (A) Overfilling control equipment (e.g. , waste feed cut-off systems and by-pass systems) at least once each operating day to ensure that it is in good working order;
- (B) Data gathered from monitoring equipment (e.g. , pressure and temperature gauges), where present, at least once each operating day to ensure that the tank is being operated according to its design; and
- (C) For uncovered tanks, the level of waste in the tank, at least once each operating day, to ensure compliance with subsection (c)(3)(B) of this section, concerning freeboard requirements.

(2) Weekly - The owner or operator must inspect:

- (A) The construction materials of the above-ground portions of the tank to detect corrosion or erosion and leaking fixtures and seams; and
- (B) The area immediately surrounding the tank to detect obvious signs of leakage (e.g. , wet spots or dead vegetation).

(3) In addition, the owner or operator must develop a comprehensive schedule and procedures for periodically assessing the condition of tanks.

- (A) Procedures must be established to assure timely detection of cracks, leaks, corrosion, or erosion which may lead to cracks or leaks, or shell thinning to less than minimum thickness explained under design requirements. (Measurement of the tank shell thickness can be made using a variety of ultrasonic devices which are currently on the market.)
- (B) Procedures must be established for emptying a tank to allow for entry and inspection of the interior to detect corrosion or erosion of tank sides and bottom. Frequency of interior inspections are to be based on the type of tank construction materials, type of corrosion or erosion protection used (e.g. , special protective coating, cathodic protection, or corrosion inhibitors), rate of

corrosion or erosion observed during previous inspections, and characteristics of the contained waste. Entry of tanks for inspection must be in accordance with Occupational Safety and Health Administration (OSHA) requirements.

(f) Emergencies and Repair.

(1) The owner or operator must establish:

(A) Procedures he intends to use to respond to tank spills or leakage; and

(B) Procedures and timing for expeditious removal of leaked or spilled waste and for repair of the tank.

(2) The owner or operator must promptly repair or remedy any leak, crack, unacceptable wall thinning, and equipment or process malfunction discovered during scheduled inspections of tanks or at any other time. Emergency and repair procedures for tanks are to be included as part of the contingency plan required under § 325.335 of this title (relating to Contingency Plan and Emergency Procedures).

(g) Closure Requirements. At closure, all hazardous waste and hazardous waste residues must be removed from tanks, discharge control equipment, and discharge confinement structures. At closure, as throughout the operating period, unless the owner or operator can demonstrate that any solid waste removed from his tank is not a hazardous waste as set forth in § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), the owner or operator becomes a generator of hazardous waste for any waste removed from the facility and must manage it in accordance with all applicable requirements of §§ 325.291 - 325.299 of this title (relating to Generators.)

(h) Special Requirements for Ignitable or Reactive Wastes.

(1) Ignitable or reactive waste shall not be placed in a tank unless one of the following paragraphs (A) - (C) applies:

(A) The waste is treated, rendered, or mixed before or immediately after placement in the tank so that:

(i) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste (see 40 CFR Part 261, Subpart C); and

(ii) Precautionary requirements under subsection (f) of § 325.333 of this title (relating to General) are complied with.

- (B) The waste is stored or treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react.
 - (C) The tank is used solely for emergencies.
 - (2) The owner or operator of a facility which treats or stores ignitable or reactive waste in covered tanks must comply with the National Fire Protection Association's (NFPA's) buffer zone requirements for tanks contained in Tables 2-1 through 2-6 of the Flammable and Combustible Code--1977 1981. (See subsection (f) of § 325.333 of this title (relating to General) for additional requirements.)
- (i) Special Requirements for Incompatible Wastes.
- (1) Incompatible wastes, or incompatible wastes and materials--see 40 CFR Part 264 or Part 265, Appendix V, as adopted by reference in subsection (f) of § 325.333 of this title (relating to General)--must not be placed in the same tank unless precautionary requirements under subsection (f) of § 325.333 of this title (relating to General) are complied with.
 - (2) Hazardous waste must not be placed in an unwashed tank which previously held an incompatible waste or material unless precautionary requirements under subsection (f) of § 325.333 of this title (relating to General) are complied with.

§ 325.342 Interim Status Surface Impoundment Facilities.

(a) Applicability.

(1) These requirements apply to owners and operators of municipal solid waste interim status facilities that have existing surface impoundments which are used not only to store and process hazardous waste, but are also used to dispose of hazardous waste. These requirements apply until such time as the facility is determined by the department to be deficient and does not qualify for permitted status and is subject to enforcement action (see also § 325.349 of this title (relating to General Standards for Land Disposal Facilities)).

(2) These requirements apply to surface impoundments which have not been designed to prevent discharge onto the land and into groundwater and surface waters (except as authorized by an NPDES permit) and do not meet all other standards established in § 325.349 of this title (relating to General Standards for Land Disposal Facilities).

(b) General Operating Requirements. A surface impoundment must maintain enough freeboard to prevent any overtopping of the dike by overfilling, wave action, or a storm. There must be at least 60 centimeters (two feet) of freeboard.

(c) Containment System. All earthen dikes must have a protective cover such as grass, shale, or rock to minimize wind and water erosion and to preserve their structural integrity.

(d) Waste Analysis and Trial Tests. In addition to the waste analyses required by subsection (b) of § 325.333 of this title (relating to General), whenever a surface impoundment is to be used to chemically process a hazardous waste which is substantially different from waste previously processed in that impoundment or chemically process hazardous waste with a substantially different method than any previously used in that impoundment, the owner or operator must, before processing the different waste or using the different method:

(1) Conduct waste analyses and trial treatment tests (e.g. , bench scale or pilot plant scale tests); or

(2) Obtain written, documented information on similar processing of similar waste under similar operating conditions to show that this processing will comply with subsection (f) of § 325.333 of this title (relating to General). As required by subsection (b) of § 325.333 of this title (relating to General), the waste analysis plan must include analyses needed to comply with subsections (g) and (h) of this section concerning special requirements for ignitable, reactive, and incompatible

waste. As required by subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting), the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the facility operating record.

(e) Inspections. The owner or operator must inspect:

- (1) The freeboard level at least once each operating day to ensure compliance with subsection (b) of this section; and
- (2) The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect any leaks, deterioration, or failures in the impoundment.
- (3) As required by subsection (d) of § 325.333 of this title (relating to General), the owner or operator must remedy any deterioration or malfunction he finds.

(f) Closure and post-closure.

- (1) At closure, the owner or operator may elect to remove from the impoundments:
 - (A) Standing liquids;
 - (B) Waste and waste residues;
 - (C) The liner, if any; and
 - (D) Underlying and surrounding contaminated soil.
- (2) If the owner or operator removes all the impoundment materials listed in paragraph (1) of this subsection or can demonstrate that none of the materials listed in paragraph (1) of this subsection remaining at any stage of removal are hazardous, the impoundment is not further subject to the requirements of surface impoundments. At closure, as throughout the operating period, unless the owner or operator can demonstrate that any solid waste removed from the surface impoundment is not a hazardous waste as set forth in § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions and Exceptions), he becomes a generator of hazardous waste for any waste removed from the facility and must manage it in accordance with all applicable requirements of §§ 325.291 - 325.299 of this title (relating to Generators).
- (3) If the owner or operator does not remove all the impoundment materials as provided for in paragraph (1) of this subsection, or does not make the demonstration specified in paragraph (2) of this subsection, he must

close the impoundment and provide post-closure care as for a landfill under § 325.338 of this title (relating to Closure and Post-Closure Requirements) and § 325.345 of this title (relating to Interim Status Landfill Facilities). If necessary to support the final cover specified in the approved plan, the owner or operator must treat remaining liquids, residues, and soils by removal of liquids, drying, or other means. The closure requirements under § 325.345 of this title (relating to Interim Status Landfill Facilities) will vary with the amount and nature of the residue remaining, if any, and the degree of contamination of the underlying and surrounding soil. Subsection (g) of § 325.338 of this title (relating to Closure and Post-Closure Requirements) allows the department to vary post-closure care requirements.

- (g) Special requirements for ignitable or reactive wastes. Ignitable or reactive waste must not be placed in a surface impoundment, unless:
 - (1) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:
 - (A) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste (see 40 CFR Part 261, Subpart C); and
 - (B) Precautionary requirements under subsection (f) of § 325.333 of this title (relating to General) are complied with.
 - (2) The surface impoundment is used solely for emergencies.
- (h) Special requirements for incompatible wastes. Incompatible wastes, or incompatible wastes and materials--see 40 CFR Part 265, Appendix V, as adopted by reference in subsection (f) of § 325.333 of this title (relating to General)--must not be placed in the same surface impoundment unless precautionary requirements under subsection (f) of § 325.333 of this title (relating to General) are complied with.

§ 325.343 Interim Status Waste Piles.

(a) Applicability.

- (1) These design and operating requirements apply to owners and operators of municipal solid waste interim status facilities that store or treat hazardous waste in waste piles and are applicable until such time as a facility is determined to be deficient and does not qualify for permitted status and is subject to enforcement action. As an alternative, a pile of hazardous waste may be managed as a landfill under § 325.345 of this title (relating to Interim Status Landfill Facilities).
- (2) Owners and operators of waste piles used to store or treat only hazardous wastes that do not contain free liquids are not subject to regulation under subsections (b), (c), (e), (f), and (g) of this section with respect to those piles, provided that:
 - (A) Liquids or materials containing free liquids are not placed in the pile;
 - (B) The pile is inside or under a structure that provides protection from precipitation so that neither run-off nor leachate is generated;
 - (C) The pile is protected from surface water run-on by the structure or in some other manner;
 - (D) The pile is designed and operated to control dispersal of the waste by wind, where necessary, by means other than wetting; and
 - (E) The pile will not generate leachate through decomposition or other reactions.

(b) General Design Requirements for Waste Piles.

- (1) A waste pile must be designed to control dispersal of the waste by wind, where necessary, or by water erosion.
- (2) A waste pile must be designed to prevent discharge into the land, surface water, or groundwater during the life of the pile by use of a containment system which complies with subsection (e) of this section.

(c) General Operating Requirements for Waste Piles.

- (1) The owner or operator shall provide control practices satisfactory to the Texas Department of Health (e.g. , cover or controlled misting, which will ensure that wind dispersal of hazardous waste from waste piles is controlled.

- (2) Run-on must be diverted away from a waste pile.
- (3) Leachate and run-off from a waste pile must be collected and controlled. If collected leachate or run-off from a waste pile can be determined to be hazardous waste, it must be managed in accordance with all applicable requirements in this subchapter. If collected leachate or run-off is discharged through a point source to waters of the United States, it is subject to requirements of § 402 of the Clean Water Act, as amended.

(d) Waste Analyses.

- (1) In addition to the waste analyses required by subsection (b) of § 325.333 of this title (relating to General), the owner or operator must analyze a representative sample of waste from each incoming movement before adding the waste to any existing pile, unless:
 - (A) The only wastes the facility receives which are amenable to piling are compatible with each other; or
 - (B) The waste received is compatible with the waste in the pile to which it is to be added.
- (2) The analysis conducted must be capable of differentiating between the types of hazardous waste the owner or operator places in piles so that mixing of incompatible waste does not inadvertently occur.
- (3) The analysis must include a visual comparison of color and texture.
- (4) As required by subsection (b) of § 325.333 of this title (relating to General), the waste analysis plan must include analyses needed to comply with subsections (h) and (i) of this section.
- (5) The owner or operator must place the results of this analysis in the operating record of the facility.

(e) Containment Systems for Waste Piles.

- (1) A waste pile containment system must be designed, constructed, maintained, and operated to prevent discharge into the land, surface water, or groundwater during the life of the waste pile. The system must consist of:
 - (A) A leachate and run-off collection and control system; and either

- (B) A base underlying and in contact with the waste pile that is made of a liner (or liners) which will prevent discharge into the land, surface water, or groundwater during the life of the pile based on the liner(s) thickness, the permeability of the liner(s), and the characteristics of the waste or leachate to which the liner(s) will be exposed. The liner(s) must be of sufficient strength and thickness to prevent failure due to puncture, cracking, tearing, or other physical damage from equipment used to place waste in or on the pile or to clean and expose the liner surface for inspection; or
 - (C) A base as described in paragraph (1)(B) of this subsection except that the liner(s) need not be of sufficient strength and thickness to prevent failure due to physical damage from equipment used to clean and expose the liner surface for inspection, but having a leachate detection, collection, and removal system beneath the base to detect, contain, collect, and remove any discharge from the base.
 - (i) The leachate detection, collection, and removal system must be placed above the water table to ensure the detection of any discharge through the base; to prevent the discharge of groundwater into the leachate detection, collection, and removal system; and to protect the structural integrity of the base. (The groundwater table may be controlled to comply with this requirement.)
 - (ii) A highly impermeable liner beneath the drainage layer is required, as part of a waste pile leachate detection, collection, and removal system.
- (2) A base for a waste pile containment system must be constructed:
- (A) Of materials that have appropriate chemical properties and strength and of sufficient thickness to prevent failure due to pressure of and physical contact with the waste to which they are exposed, climatic conditions, and the stress of installation; and
 - (B) On a foundation capable of providing support to the liner(s) and to loads placed on or moving above the liner(s) to prevent failure of the liner(s) due to settlement or compression.

- (3) A containment system for a waste pile must be protected from plant growth which could puncture any component of the system and must have a containment life equal to or greater than the life of the waste pile. (References: See "Landfill and Surface Impoundment Performance Evaluation," EPA, SW/869, September 1980, for methods to evaluate the containment life and effectiveness of a liner system. See "Lining of Waste Impoundment and Disposal Facilities," EPA/870, September 1980, for data and discussions of liner system materials, design, construction, operation, and maintenance.)
- (f) Inspection and Testing. During construction or installation of the base for a waste pile containment system:
- (1) Liner systems must be inspected for uniformity, damage, and imperfections (e.g. , holes, cracks, thin spots, and foreign materials); and
 - (2) Manufactured liner materials (e.g. , membranes, sheets, and coatings) must be inspected to ensure tight seams and joints and the absence of tears or blisters.
- (g) Waste Pile Containment System Repairs & Contingency Actions.
- (1) Possible failure. Whenever there is any indication of a possible failure of a waste pile containment system, that system must be inspected in accordance with a required containment system evaluation and repair plan explained in paragraph (4) of this subsection. Indications of possible failure include:
 - (A) Liquid detected in a leachate detection system;
 - (B) Evidence of leakage or potential for leakage in the containment system base;
 - (C) Erosion of the containment system base; or
 - (D) Apparent or potential deterioration of containment system liners, based on observation or test sampling of liner materials.
 - (2) Positive failure. Whenever there is a positive indication of failure of a waste pile containment system, the waste pile must be removed from service. Indications of positive failure include:
 - (A) Waste detected in a leachate detection system; and
 - (B) Observed breach in the base; e.g. , a hole, tear, crack, or separation.

- (3) Removal from service. If a waste pile must be removed from service because of positive indications of failure in the containment system, the owner or operator must:
- (A) Immediately stop adding wastes to the pile;
 - (B) Immediately contain any leakage which has or is occurring;
 - (C) Immediately cause the leak to be stopped; or
 - (D) If the leak cannot be stopped by any other means, remove the waste from the base; and
 - (E) Document in the facility operating record the time, date, and details of the incident; and
 - (F) Within 15 days after the incident, submit a written report to the Technical Assessment Branch, Bureau of Solid Waste Management, Texas Department of Health, 1100 West 49th Street, Austin, Texas 78756. The report must include:
 - (i) Name and telephone number of reporter;
 - (ii) Name and address of facility;
 - (iii) Time and type of incident (e.g. , release, fire, or other);
 - (iv) Name and quantity of material(s) involved, to the extent known;
 - (v) The extent of injuries, if any; and
 - (vi) The possible hazards to human health or the environment outside the facility.
- (4) Contingency Plan. As part of the contingency plan and emergency procedures required under subsection (a) of § 325.335 of this title (relating to Contingency Plan and Emergency Procedures), the owner or operator must specify:
- (A) A waste pile containment system evaluation and repair plan describing testing and monitoring techniques; procedures to be followed to evaluate the integrity of the containment system in the event of a possible failure; a schedule of actions to be taken in the event of a possible failure; and a description of the repair techniques to be used in the event of leakage due to containment system failure or deterioration which does not require the waste pile be removed from service.

- (B) Procedures to follow in the event that a waste pile must be removed from service because of positive indications of failure of the waste pile containment system.
- (5) Reinstatement After Positive Failure. No waste pile that has been removed from service because of positive failure of the containment system may be restored to service unless:
 - (A) The containment system has been repaired; and
 - (B) The containment system has been certified by a qualified engineer as meeting the design specifications approved in the permit.
- (6) Closure After Positive Failure. A waste pile that has been removed from service because of positive failure of the containment system and is not being repaired must be closed in accordance with requirements of subsection (j) of this section. All wastes removed from the waste pile must be managed as a hazardous waste in compliance with all applicable requirements of this subchapter in accordance with subsection (j) of this section. Any point source discharge to waters of the United States is subject to the requirements of § 402 of the Clean Water Act, as amended.
- (h) Special Requirements for Ignitable or Reactive Waste - Waste Piles. Ignitable or reactive waste must not be placed in a waste pile, unless:
 - (1) Addition of the waste results in the waste or mixture no longer meeting the definition for ignitable or reactive; and
 - (2) Precautionary requirements under subsection (f) of § 325.333 of this title (relating to General) in these regulations are complied with; or
 - (3) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react. To assure compliance with special requirements for ignitable or reactive waste, the owner or operator of waste piles must comply with waste analysis requirements under subsection (b) of § 325.333 of this title (relating to General) and must document results in the facility operating record.
- (i) Special Requirements for Incompatible Wastes - Waste Piles.
 - (1) Incompatible wastes or incompatible wastes and materials must not be placed in the same waste pile unless precautionary requirements of subsection (f) of § 325.333 of this title (relating to General) are complied with.

- (2) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device. The purpose of this requirement is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the contact or mixing of incompatible wastes or materials.
- (3) Hazardous waste must not be piled on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to ensure compliance with subsection (f) of § 325.333 of this title (relating to General).

(j) Closure of Waste Piles.

- (1) At closure, all hazardous waste and hazardous waste residues must be removed from the waste pile.
- (2) At closure, any component of waste pile containment system, subsoils, structures, or equipment which is contaminated with hazardous waste, leachate, or residues must be decontaminated or removed. At closure, as throughout the operating period, unless the owner or operator can demonstrate that any solid waste from a waste pile or containment system is not hazardous as set forth in § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), the owner or operator becomes a generator of hazardous waste for any waste removed from the facility and must manage it in accordance with all applicable requirements of §§ 325.291 - 325.299 of this title (relating to Generators).
- (3) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in paragraph (2) of this subsection, the owner or operator finds that all contaminated subsoils cannot be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements of § 325.345 of this title (relating to Interim Status Landfill Facilities).

§ 325.344 Interim Status Land Treatment Facilities.

(a) Applicability. These requirements apply to owners and operators of municipal solid waste interim status facilities using land treatment of hazardous waste. These requirements are applicable until such time as a facility is determined by the department to be deficient and does not qualify for permitted status and is subject to enforcement action.

(b) General Operating Requirements.

- (1) Hazardous waste must not be placed in or on a land treatment facility unless the waste can be made less hazardous or nonhazardous by biological degradation or chemical reactions occurring in or on the soil.
- (2) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portions of the facility during peak discharge from at least a 24-hour, 25-year storm.
- (3) 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, 25-year storm.
- (4) 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.
- (5) 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.

(c) Waste Analysis. In addition to the waste analyses required under subsection (b) of § 325.333 of this title (relating to General), before placing a hazardous waste in or on a land treatment facility the owner or operator must:

- (1) Determine the concentrations in the waste of any substances which exceed the maximum concentrations contained in 40 CFR § 261.24 that cause a waste to exhibit the EP toxicity characteristic;
- (2) Determine the concentrations of any substances which caused the waste to be listed as a hazardous waste for any waste listed in 40 CFR Part 261, Subpart D; and
- (3) If food chain crops are grown, determine the concentrations in the waste of each of the following constituents; arsenic, cadmium, lead, and mercury, unless

the owner or operator has written, documented data that show that the constituent is not present. As required by subsection (b) of § 325.333 of this title (relating to General), the waste analysis plan must include analyses needed to comply with subsections (h) and (i) of this section. As required under subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting), the owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.

(d) Food Chain Crops.

- (1) An owner or operator of a hazardous waste land treatment facility on which food chain crops are being grown or have been grown and will be grown in the future must notify the Texas Department of Health by January 19, 1981.
- (2) Food chain crops must not be grown on the treated area of a hazardous waste land treatment facility unless:
 - (A) The owner or operator can demonstrate, based on field testing, that any arsenic, lead, mercury, or other constituents identified under subsection (c)(3) of this section:
 - (i) Will not be transferred to the food portion of the crop by plant uptake or direct contact, and will not otherwise be ingested by food chain animals (e.g. , by grazing); or
 - (ii) Will not occur in greater concentrations in the crops grown on the land treatment facility than in the same crops grown on untreated soils under similar conditions in the same region.
 - (B) The information necessary to make the demonstration required by subparagraph (A) of this paragraph must be kept at the facility and must, at a minimum:
 - (i) Be based on tests for the specific waste and application rates being used at the facility; and
 - (ii) Include descriptions of crop and soil characteristics, sample selection criteria, sample size determination, analytical methods, and statistical procedures.
- (3) Food chain crops must not be grown on a land treatment facility receiving waste that contains cadmium unless all requirements of subparagraphs (A) - (C) of this

paragraph, are met, or all requirements of subparagraphs (D) - (F) of this paragraph, are met.

- (A) The pH of the waste and soil mixture is 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of two milligrams/kilogram (dry weight) or less.
- (B) The annual application of cadmium from waste does not exceed 0.5 kilograms per hectare (kg/ha) on land used for production of tobacco, leafy vegetables, or root crops grown for human consumption. For other food chain crops, the annual cadmium application rate does not exceed:

Time Period	Annual CD Application Rate (kg/ha)
Present to June 30, 1984	2.0
July 1, 1984 - December 31, 1986	1.25
Beginning Jan. 1, 1987	0.5

- (C) The cumulative application of cadmium from waste does not exceed the level in either clauses (i) or (ii) of this subparagraph:

(i)

Maximum Cumulative Application (kg/ha)		
Soil Cation Exchange Capacity (meq/100g)	Background Soil pH Less Than 6.5	Background Soil pH Greater Than 6.5
Less than 5	5	5
5-15	5	10
Greater than 15	5	20

- (ii) For soils with a background pH of less than 6.5, the cumulative cadmium application rate does not exceed the levels in this clause provided that pH of the waste and soil mixture is adjusted to and maintained at 6.5 or greater whenever food-chain crops are grown.

Soil Cation Exchange Capacity (meq/100g)	Maximum Cumulative Application (kg/ha)
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Less than 5	5
5-15	10
Greater than 15	20

- (D) The only food chain crop produced is animal feed.
 - (E) The pH of the waste and soil mixture is 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level is maintained whenever food chain crops are grown.
 - (F) There is a facility operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The facility operating plan describes the measures taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land use.
 - (G) Future property owners are notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food chain crops must not be grown except in compliance with subparagraphs (D) - (G) of this paragraph. As required by subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting), if an owner or operator grows food chain crops on his land treatment facility he must place the information developed in this regulation in the operating record of the facility.
- (e) Unsaturated Zone (Zone of Aeration) Monitoring.
- (1) The owner or operator must have in writing and must implement an unsaturated zone monitoring plan which is designed to:
 - (A) Detect the vertical migration of hazardous waste and hazardous waste constituents under the active portion of the land treatment facility; and
 - (B) Provide information on the background concentrations of the hazardous waste and hazardous waste constituents in similar but untreated soils nearby. This background monitoring must be conducted before or in conjunction with the monitoring required by subparagraph (A) of this paragraph.
 - (2) The unsaturated zone monitoring plan must include, at a minimum:

- (A) Soil monitoring using soil cores; and
 - (B) Soil-pore water monitoring using devices such as lysimeters.
- (3) To comply with paragraph (1)(A) of this subsection, the owner or operator must demonstrate in his unsaturated zone monitoring plan the following:
- (A) The depth at which soil and soil-pore water samples are to be taken is below the depth to which the waste is incorporated into the soil.
 - (B) The number of soil and soil-pore water samples to be taken is based on the variability of:
 - (i) The hazardous waste constituents as identified in subsection (c)(1) and (c)(2) of this section in the waste and in the soil; and
 - (ii) The soil type(s).
 - (C) The frequency and timing of soil and soil-pore water sampling is based on the frequency, time and rate of waste application, proximity to groundwater, and soil permeability.
- (4) The owner or operator must keep at the facility his unsaturated zone monitoring plan and the rationale used in developing this plan.
- (5) The owner or operator must analyze the soil and soil-pore water samples for the hazardous waste constituents that were found in the waste during the waste analysis required in subsection (c)(1) and (2) of this section. As required under subsection (c) of § 325.337 of this title (relating to Groundwater Monitoring Requirements for Interim Status Facilities), all data and information developed by the owner or operator to comply with the above requirement must be placed in the operating record of the facility.
- (f) Record Keeping. The owner or operator of a land treatment facility must keep records of the application dates and rates in the operating record required under subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting).
- (g) Closure and Post-Closure.
- (1) In the closure plan and the post-closure plan required under subsections (c) and (h) of § 325.338 of this title (relating to Closure and Post-Closure Requirements), the owner or operator must address the following objectives

and indicate how they will be achieved:

- (A) Control of the migration of hazardous waste and hazardous waste constituents from the treated area into the groundwater;
 - (B) Control of the release of contaminated run-off from the facility into surface water;
 - (C) Control of the release of airborne particulate contaminants caused by wind erosion; and
 - (D) Compliance with subsection (d) of this section, concerning the growth of food chain crops.
- (2) The owner or operator must consider at least the following factors in addressing the closure and post-closure care objectives of paragraph (1) of this subsection.
- (A) Type and amount of hazardous waste and hazardous waste constituents applied to the land treatment facility.
 - (B) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents.
 - (C) 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).
 - (D) Climate, including amount, frequency, and pH of precipitation.
 - (E) Geological and soil profiles; surface and subsurface hydrology of the site; and soil characteristics, including cation exchange capacity, total organic carbon, and pH.
 - (F) Unsaturated zone monitoring information obtained under subsection (e) of this section.
 - (G) Type, concentration, and depth of migration of hazardous waste constituents in the soil as compared to their background concentrations.
- (3) The owner or operator must consider at least the following methods in addressing the closure and post-closure care objectives of paragraph (1) of this subsection.

- (A) Removal of contaminated soils.
 - (B) Placement of a final cover considering:
 - (i) Functions of the cover (e.g. , infiltration control, erosion and run-off control, and wind erosion control); and
 - (ii) 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.
 - (C) Monitoring of groundwater.
- (4) In addition to the requirements of § 325.338 of this title (relating to Closure and Post-Closure Requirements), during the closure and post-closure care period the owner or operator of a land treatment facility must:
- (A) Continue unsaturated zone monitoring in a manner and 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;
 - (B) Maintain the run-on control system required under subsection (b) of this section;
 - (C) Maintain the run-off management system required under subsection (b) of this section; and
 - (D) Control wind dispersal of particulate matter which may be subject to wind dispersal.
- (5) For the purpose of complying with subsection (f) of § 325.338 of this title (relating to Closure and Post-Closure Requirements), when closure is completed the owner or operator may submit to the department 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.
- (6) In addition to the requirements of subsection (g) of § 325.338 of this title (relating to Closure and Post-Closure Requirements), during the post-closure care period the owner or operator of a land treatment unit must:
- (A) Continue soil-core monitoring by collecting and analyzing samples in a manner and frequency

specified in the post-closure plan;

- (B) Restrict access to the unit as appropriate for its post-closure use;
 - (C) Assure that growth of food chain crops complies with subsection (d) of this section; and
 - (D) Control wind dispersal of hazardous waste.
- (h) Special Requirements for Ignitable or Reactive Wastes. Ignitable or reactive wastes must not be land treated unless the following conditions are met.
- (1) The waste is immediately incorporated into the soil so that:
 - (A) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 40 CFR Part 261, Subpart C; and
 - (B) Subsection (f) of § 325.333 of this title (relating to General) is complied with.
 - (2) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.
- (i) Special Requirements for Incompatible Wastes. Incompatible wastes, or incompatible wastes and materials--see 40 CFR Part 265, Appendix V, as adopted by reference in subsection (f) of § 325.333 of this title (relating to General)--must not be placed in the same land treatment area unless subsection (f) of § 325.333 of this title (relating to General) is complied with.
- (j) Removal of Hazardous Wastes. Throughout the operating period, at closure, or during the post-closure period, unless the owner or operator can demonstrate that any solid waste removed from a land treatment site is not hazardous as set forth in § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), the owner or operator becomes a generator of hazardous waste for any waste removed from the facility and must manage it in accordance with all applicable requirements of §§ 325.291 - 325.299 of this title (relating to Generators).

§ 325.345 Interim Status Landfill Facilities.

- (a) Applicability. These requirements apply to owners and operators of municipal solid waste interim status facilities that dispose of hazardous waste in landfills. These regulations are applicable until such time as a facility is determined by the department to be deficient and does not qualify for permitted status and is subject to enforcement action. A waste pile used as a disposal facility is a landfill and is also governed by these requirements.
- (b) General operating requirements.
- (1) 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 24-hour, 25-year storm.
 - (2) 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, 25-year storm.
 - (3) 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.
 - (4) 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. As required by subsection (b) of § 325.333 of this title (relating to General), the waste analysis plan must include analyses needed to comply with subsections (e) and (f) of this section. As required by subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting), the owner or operator must place the results of these analyses in the operating record of the facility.
- (c) Surveying and record keeping. The owner or operator of a landfill must maintain the following items in the operating record required by subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting).
- (1) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and
 - (2) The contents of each cell and the approximate location of each hazardous waste type within each cell.

(d) Closure and post-closure.

- (1) The owner or operator must place a final cover over the landfill and the closure plan under subsection (c) of § 325.338 of this title (relating to Closure and Post-Closure Requirements) must specify the function and design of the cover. In the post-closure plan under subsection (h) of § 325.338 of this title (relating to Closure and Post-Closure Requirements), the owner or operator must include the post-closure care requirements of paragraph (4) of this subsection.
- (2) In the closure and post-closure plans, the owner or operator must address the following objectives and indicate how they will be achieved:
 - (A) Control of pollutant migration from the facility via groundwater, surface water, and air;
 - (B) Control of surface water infiltration, including prevention of pooling; and
 - (C) Prevention of erosion.
- (3) The owner or operator must consider at least the following factors in addressing the closure and post-closure care objectives of paragraph (2) of this subsection:
 - (A) Type and amount of hazardous waste and hazardous waste constituents in the landfill;
 - (B) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;
 - (C) 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);
 - (D) Climate, including amount, frequency, and pH of precipitation;
 - (E) 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; and
 - (F) Geological and soil profiles and surface and subsurface hydrology of the site.
- (4) In addition to the requirements of subsection (g) of § 325.338 of this title (relating to Closure and Post-

Closure Requirements), during the post-closure care period the owner or operator of a hazardous waste landfill must do the following.

- (A) Maintain the function and integrity of the final cover as specified in the approved closure plan.
 - (B) Maintain and monitor the leachate collection, removal, and treatment system (if there is one present in the landfill) to prevent excess accumulation of leachate in the system. If collected leachate is a hazardous waste as identified by § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), it must be managed as a hazardous waste in accordance with all applicable requirements of this subchapter. If the collected leachate is discharged through a point source to waters of the United States, it is subject to the requirements of § 402 of the Clean Water Act, as amended.
 - (C) Maintain and monitor the gas collection and control system (if there is one present in the landfill) to control the vertical and horizontal escape of gases.
 - (D) Protect and maintain surveyed benchmarks.
 - (E) Restrict access to the landfill as appropriate for its post-closure use.
- (e) Special requirements for ignitable or reactive waste.
- (1) Except as provided in paragraph (2) of this subsection and in subsection (h) of this section, ignitable or reactive waste must not be placed in a landfill unless the waste is treated, rendered, or mixed before or immediately after placement in the landfill so that:
 - (A) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 40 CFR § 261.21 or § 261.23; and
 - (B) Subsection (f) of § 325.333 of this title (relating to General) is complied with.
 - (2) Ignitable wastes in containers may be landfilled without meeting the requirements of paragraph (1) of this subsection provided that the wastes are disposed in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes:

- (A) Must be disposed in non-leaking containers (also see subsection (g) of this section regarding requirements for liquid wastes) which are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes;
 - (B) Must be covered daily with soil or other noncombustible material to minimize the potential for ignition of the wastes; and
 - (C) Must not be disposed in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.
- (f) Special requirements for incompatible wastes. Incompatible wastes, or incompatible wastes and materials--see 40 CFR Part 265, Appendix V, as adopted by reference in subsection (f) of § 325.333 of this title (relating to General)--must not be placed in the same landfill cell unless subsection (f) of § 325.333 of this title (relating to General) is complied with.
- (g) Special requirements for liquid waste.
- (1) Bulk or noncontainerized liquid waste or waste containing free liquids must not be placed in a landfill unless, before disposal, the liquid waste or waste containing free liquids is treated or stabilized chemically or physically (e.g. , by mixing with an absorbent solid) so that free liquids are no longer present.
 - (2) Containers holding free liquids must not be placed in a landfill unless any of the following apply.
 - (A) All free-standing liquid:
 - (i) has been removed by decanting or other methods;
 - (ii) has been mixed with absorbent or solidified material so that free-standing liquid is no longer observed; or
 - (iii) had been otherwise eliminated.
 - (B) The container is very small, such as an ampule.
 - (C) The container is designed to hold liquids or free liquids for a use other than storage, such as a battery or capacitor.
 - (D) The container is a lab pack as defined in subsection (h) of this section.

- (3) Owners or operators must be in compliance with paragraph (1) of this subsection by November 19, 1981. The date for compliance with paragraph (2) of this subsection is the effective date of these regulations.

(h) Special requirements for containers.

- (1) An empty container must be crushed flat, shredded, or similarly reduced in volume before it is buried beneath the surface of a landfill.
- (2) Owners or operators must be in compliance with the foregoing requirement by November 19, 1981.
- (3) Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfill if the following requirements are met:
 - (A) Hazardous waste must be packaged in non-leaking inside containers. The inside containers must be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the waste held therein. Inside containers must be tightly and securely sealed. The inside containers must be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations (see 49 CFR Parts 173, 178, and 179) if those regulations specify a particular inside container for the waste.
 - (B) The inside containers must be overpacked in an open head DOT-specification metal shipping container (see 49 CFR Parts 178 and 179) of no more than 416-liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of absorbent material to completely absorb all of the liquid contents of the inside containers. The metal outer container must be full after packing with inside containers and absorbent material.
 - (C) The absorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers in accordance with subsection (f) of § 325.333 of this title (relating to General).
 - (D) Incompatible wastes, as defined in 40 CFR § 260.10(a), must not be placed in the same outside container.
 - (E) Reactive waste, other than cyanide- or sulfide-bearing waste as defined in 40 CFR § 261.23, must be treated or rendered non-reactive prior to packaging in accordance with subparagraphs

(A) - (D) of this paragraph. Cyanide- and sulfide-bearing reactive waste may be packaged in accordance with subparagraphs (A) - (D) of this paragraph without first being treated or rendered non-reactive.

- (i) Removal of hazardous wastes. Throughout the operating period, at closure, or during the post-closure period, unless the owner or operator can demonstrate that any solid waste removed from a landfill site is not hazardous as set forth in § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), the owner or operator becomes a generator of hazardous waste for waste removed from the facility and must manage it in accordance with all applicable requirements of §§ 325.291 - 325.299 this title (relating to Generators).

§ 325.346 Incinerators.

(a) Applicability.

(1) The requirements in this section:

- (A) Apply to owners and operators of municipal solid waste facilities that process hazardous waste in incinerators; and
- (B) Are prerequisite to issuance of a permit by the Texas Department of Health for such processing.

(2) The department may exempt owners and operators of incinerators burning hazardous waste from all requirements of this section except subsections (a)(1), (b), (g), and (h) of this section if the waste to be burned is described as follows:

- (A) It is listed as a hazardous waste solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both;
- (B) It is listed as a hazardous waste solely because it is reactive (Hazard Code R) for characteristics other than generating toxic gases, vapor, or fumes in a quantity sufficient to present a danger to human health or the environment whenever mixed with water or upon exposure to pH conditions between 2.0 and 12.5 and will not be burned when other hazardous wastes are present in the combustion zone;
- (C) It is a hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both as determined by the test for characteristics of hazardous wastes under 40 CFR Part 261, Subpart C;
- (D) It is a hazardous waste solely because it possesses the reactivity characteristics described by 40 CFR § 261.23(a)(1), (2), (3), (6), (7), or (8) and will not be burned when other hazardous wastes are present in the combustion zone (such documentation must be kept at the facility); or
- (E) The waste contains none of the hazardous constituents listed in 40 CFR Part 261, Appendix VIII, which would reasonably be expected to be in the waste or contains insignificant concentrations of the hazardous constituents listed in 40 CFR Part 261, Appendix VIII, unless the department finds that the waste will pose a threat to human health and the environment when burned in an incinerator. (Documentation must be retained at the facility.)

(F) The owner or operator of an incinerator may conduct trial burns subject only to the requirements of subsection (d) of this section.

(b) Waste Analysis Requirements for Incinerators. The owner/operator processing hazardous waste in an incinerator must:

(1) Comply with general waste analysis requirements established under subsection (b) of § 325.333 of this title (relating to General).

(2) Sufficiently analyze any waste which he has not previously burned in his incinerator to enable him to establish steady state (normal) operating conditions (including waste and auxiliary fuel feed and air flow), and to determine the type of pollutants which might be emitted. At a minimum, such supplementary analysis must determine:

(A) Heating value of the waste;

(B) Halogen content and sulfur content in the waste; and

(C) Concentrations in the waste of lead and mercury, unless the owner or operator has written documentation showing that these elements are not present.

(3) Conduct sufficient waste analysis throughout normal or trial burn operations to verify that waste feed to the incinerator is within the physical and chemical composition limits specified in the facility permit or in a trial burn permit issued by the Texas Department of Health. As required by subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting), the owner or operator must enter results of each waste analysis in the facility operating record.

(4) As a portion of the trial burn plan required by subsection (d) of this section or with Part B of the permit application, the owner or operator must have included an analysis of the waste feed sufficient to provide all information required by § 325.350 of this title (relating to Permits). Owners or operators of new hazardous waste incinerators must provide the information required by § 325.350 of this title (relating to Permits) to the greatest extent possible.

(c) Performance Standards for Incinerators and Principal Organic Hazardous Constituents (POHC's). An incinerator burning hazardous waste must be designed, constructed, and maintained so that the incinerator, when operated in accordance with operating requirements specified in a permit, will meet the following standards.

- (1) A destruction and removal efficiency (DRE) of 99.99% must be achieved for each principal organic hazardous constituent (POHC) designated in the facility permit for each waste feed.

(A) POHC. Principal Organic Hazardous Constituents.

- (i) POHC's in the waste feed must be treated to the extent required by the performance standard of this paragraph.
- (ii) One or more POHC's will be specified in the facility permit from among those hazardous constituents listed in 40 CFR Part 261, Appendix VIII, for each waste feed to be burned. This specification will be based on the degree of difficulty of incineration of the organic constituents in the waste and on their concentration of mass in the waste feed considering the results of waste analyses and trial burns or alternative data submitted as part of the facility permit application.
 - (I) Organic constituents which represent the greatest degree of difficulty of incineration will be those most likely to be designated as POHC's.
 - (II) Constituents are more likely to be designated as POHC's if they are present in large concentrations in the waste.
- (iii) Trial POHC's will be designated for performance of trial burns in accordance with criteria and procedures established by the U.S. EPA. The Texas Department of Health will furnish specific guidance on short-term trial burn permits on a case-by-case basis.

- (B) DRE. Destruction and Removal Efficiency. The DRE is determined for each POHC from the following equation:

$$\text{DRE equals } \frac{(W_{\text{in}} - W_{\text{out}})}{W_{\text{in}}} \times 100\%$$

Where:

"W in" equals mass feed rate of one principal organic hazardous constituent (POHC) in the waste stream feeding the incinerator, and

"W out" equals mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

- (2) An incinerator burning hazardous waste and producing stack emissions of more than 1.8 kilograms per hour (four pounds per hour) of hydrogen chloride (HCl) must control HCl emissions such that the rate of emission is no greater than the larger of either 1.8 kilograms per hour or 1.0% of the HCl in the stack gas prior to entering any pollution control equipment.
- (3) An incinerator burning hazardous waste must not emit particulate matter in excess of 180 milligrams per dry standard cubic meter (0.08 grains per dry standard cubic foot) when corrected for the amount of oxygen in the stack gas according to the formula:

$$P_c = P_m \cdot \frac{14}{21-Y}$$

Where "P_c" is the corrected concentration of particulate matter, "P_m" is the measured concentration of particulate matter, and "Y" is the measured concentration of oxygen analysis of dry flue gas presented in 40 CFR Part 60, Appendix A, Method 3. This correction procedure is to be used by all hazardous waste incinerators except those operating under conditions of oxygen enrichment. For these facilities, the department will select an appropriate correction procedure to be specified in the facility permit.

- (4) For purposes of permit enforcement, compliance with the operating requirements specified in the permit in § 325.350 of this title (relating to Permits) will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the performance requirements of this section may be information justifying modification, revocation, or reissuance of a permit under § 325.350 of this title (relating to Permits).
- (d) New Wastes; Trial Burns or Permit Modifications.
- (1) The owner or operator of a hazardous waste incinerator may burn only wastes specified in his permit and only under operating conditions specified in the permit, except:
 - (A) In the trial burns approved by the Texas Department of Health; or

- (B) Under exceptions for waste which solely meets characteristics for ignitability as explained in subsections (a)(3) and (a)(4) of this section.
- (2) Other hazardous wastes may be burned only after operating conditions have been specified in a new permit or a permit modification as applicable. Operating requirements for new wastes may be based on either trial burn results or alternative data included with a permit application.
- (3) The permit for a new hazardous waste incinerator must establish appropriate conditions for each of the applicable requirements of this section including, but not limited to, allowable waste feeds and operating conditions necessary to meet the requirements of subsection (e) of this section sufficient to comply with the following standards.
 - (A) The operating requirements must be those most likely to ensure compliance with the performance standards of subparagraph (C) of this paragraph, in the department's engineering judgement, for the period beginning with initial introduction of hazardous waste to the incinerator and ending with initiation of the trial burn and only for the minimum time required to establish operating conditions required in subparagraph (B) of this paragraph, not to exceed a duration of 720 hours operating time for treatment of hazardous waste. The department may extend the duration of this period once for up to 720 additional hours when good cause for the extension is demonstrated by the applicant.
 - (B) For the duration of the trial burn, the operating requirements must be sufficient to demonstrate compliance with the performance standards of subparagraph (C) of this paragraph and must be in accordance with the approved trial burn plan.
 - (C) For the period immediately following completion of the trial burn and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant and review of the trial burn results and modification of the facility permit by the department, the operating requirements must be those most likely to ensure compliance with the performance standards of this subparagraph based on the department's engineering judgement.
 - (D) For the remaining duration of the permit, the operating requirements must be those demonstrated, in a trial burn or by alternative data specified in

the permit, as sufficient to ensure compliance with the performance standards of subparagraph (C) of this paragraph.

(e) Operating Requirements for Incinerators.

- (1) For a general standards incinerator, the incinerator must be operated in accordance with operating requirements specified in the facility permit. These will be specified on a case-by-case basis as those demonstrated to be sufficient to comply with performance standards.
- (2) Each set of operating requirements for a general standards incinerator will specify the composition of the waste feed (including acceptable variations in the physical or chemical properties of the waste feed which will not affect compliance with the performance requirement) to which the operating requirements apply. For each such waste feed, the permit will specify acceptable operating limits including the following conditions:
 - (A) Carbon monoxide (CO) level in the stack exhaust gas;
 - (B) Waste feed rate;
 - (C) Combustion temperature;
 - (D) An appropriate indicator of combustion gas velocity;
 - (E) Allowable variations in incinerator system design or operating procedures; and
 - (F) Such other operating requirements as are necessary to ensure that the performance standards are met.
- (3) During start-up and shut-down of an incinerator, hazardous waste (except ignitable waste exempted in accordance with subsection (a)(3)(B) of this section) must not be fed into the incinerator unless the incinerator is operating within the conditions of operation (temperature, air feed rate, etc.) specified in the facility permit.
- (4) Fugitive emissions from the combustion zone must be controlled by:
 - (A) Keeping the combustion zone totally sealed against fugitive emissions;
 - (B) Maintaining a combustion zone pressure lower than atmospheric pressure; or

- (C) An alternate means of control demonstrated to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.
 - (5) An incinerator must be operated with a functioning system to automatically cut off waste feed to the incinerator when operating conditions deviate from limits established under paragraph (1) of this subsection.
 - (6) An incinerator must cease operation when changes in waste feed, incinerator design, or operating conditions exceed limits designated in its permit.
- (f) Monitoring and Inspection of Incinerators.
- (1) The owner or operator must conduct, as a minimum, the following monitoring while incinerating hazardous waste:
 - (A) Combustion temperature, waste feed rate, and the indicator of combustion gas velocity specified in the facility permit must be monitored on a continuous basis.
 - (B) Carbon monoxide must be monitored on a continuous basis at a point in the incinerator downstream of the combustion zone and prior to release to the atmosphere.
 - (C) Upon request by the Texas Department of Health, sampling and analysis of the waste and exhaust emissions must be conducted to verify that the operating requirements established in the permit achieve performance standards established under subsection (c) of this section.
 - (2) The incinerator and associated equipment (pumps, valves, conveyors, pipes, etc.) must be subjected to thorough visual inspection, at least daily, for leaks, spills, fugitive emissions, and signs of tampering.
 - (3) The emergency waste feed cutoff system and associated alarms must be tested at least weekly to verify operability unless the applicant demonstrates to the department that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, operational testing must be conducted at least monthly.
 - (4) This monitoring and inspection data must be recorded and the records must be placed in the operating log required by subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting).

- (g) Closure of Incinerator Site. At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the incinerator site. At closure, as throughout the operating period, unless the owner or operator can demonstrate that the residue from the incinerator is not a hazardous waste as set forth in § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), the owner or operator of the incinerator becomes a generator of hazardous waste for any hazardous waste removed from the facility and must manage it in accordance with §§ 325.291 - 325.299 of this title (relating to Generators) and other applicable requirements of these regulations.
- (h) Texas Air Control Board License. The construction and operation of incinerators may require a Texas Air Control Board license. Applicants should consult with that agency at the time of, or prior to, submitting an application to the department.

§ 325.347 Interim Status Thermal Processing Facilities.

- (a) Applicability. These requirements apply to owners and operators of municipal solid waste facilities that thermally process hazardous waste in devices other than incinerators.
- (b) General Operating Requirements. Before adding hazardous waste, the owner or operator must bring his thermal processing system to steady-state (normal) conditions of operation, including steady-state operating temperature using auxiliary fuel or other means unless the system is a noncontinuous (batch) thermal processing system which requires a complete thermal cycle to process a discrete quantity of hazardous waste.
- (c) Waste Analyses. In addition to the waste analyses required by subsection (b) of § 325.333 of this title (relating to General), the owner or operator must sufficiently analyze any waste which he has not previously processed in his thermal system to enable him to establish steady-state (normal) or other appropriate (for a noncontinuous process) operating conditions (including waste and auxiliary fuel feed) and to determine the type of pollutants which might be emitted. At a minimum, the analysis must determine:
 - (1) Heating value of the waste;
 - (2) Halogen content and sulfur content in the waste; and
 - (3) Concentrations in the waste of lead and mercury unless the owner or operator has written documented data that show that the element is not present. As required by subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting), the owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.
- (d) Monitoring and Inspection. The owner or operator must conduct, as a minimum, the following monitoring and inspections when thermally processing hazardous waste.
 - (1) Existing instruments which relate to temperature and emission control (if an emission control device is present) must be monitored at least every 15 minutes. Appropriate corrections to maintain steady-state or other appropriate thermal processing conditions must be made immediately either automatically or by the operator. Instruments which relate to temperature and emission control would normally include those measuring waste feed, auxiliary fuel feed, process temperature, and relevant process flow and level controls.

- (2) The stack plume (emissions), where present, must be observed visually at least hourly for appearance (color and opacity). The operator must immediately make any indicated operating corrections necessary to return any visible emissions to their normal appearance.
- (3) The complete thermal processing system and associated equipment (pumps, valves, conveyors, pipes, etc.) must be inspected at least daily for leaks, spills, and fugitive emissions. All emergency shutdown controls and system alarms must be checked to assure proper operation.
- (e) Closure. At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to ash) from the thermal processing system or equipment. At closure, as throughout the operating period, unless the owner or operator can demonstrate that any solid waste removed from his thermal processing system or equipment is not a hazardous waste as set forth in § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), the owner or operator becomes a generator of hazardous waste for any hazardous waste removed from the facility and must manage it in accordance with all applicable requirements of §§ 325.291 - 325.299 of this title (relating to Generators).
- (f) Open Burning; Waste Explosives. Open burning of hazardous waste is prohibited except for the open burning and detonation of waste explosives. Waste explosives include waste which has the potential to detonate and bulk military propellants which cannot safely be disposed of through other modes of processing. Detonation is an explosion in which chemical transformation passes through the material faster than the speed of sound (0.33 kilometers/second at sea level). Owners or operators choosing to open burn or detonate waste explosives must do so in accordance with the following table and in a manner that does not threaten human health or the environment:

Pounds of Waste Explosives or Propellants	Minimum Distances From Open Burning or Detonation to the Property of Others
0 to 100	204 meters (670 feet)
101 to 1,000	380 meters (1,250 feet)
1,001 to 10,000	530 meters (1,730 feet)
10,001 to 30,000	690 meters (2,260 feet)

§ 325.348 Interim Status Chemical, Physical, and Biological Processing Facilities.

- (a) Applicability. These requirements apply to owners and operators of municipal solid waste facilities which process hazardous wastes by chemical, physical, or biological methods in other than tanks, surface impoundments, and land treatment facilities.
- (b) General Operating Requirements.
 - (1) Chemical, physical, or biological processing of hazardous waste must comply with subsection (f) of § 325.333 of this title (relating to General).
 - (2) Hazardous waste or processing reagents must not be placed in the processing system or equipment if they could cause the processing system or equipment to rupture, leak, corrode, or otherwise fail before the end of its intended life.
 - (3) Where hazardous waste is continuously fed into a processing system or equipment, the system or equipment must be equipped with a means to stop this inflow (e.g. , a waste feed cut-off system or by-pass system to a standby containment device.) These systems are intended to be used in the event of a malfunction in the treatment process or equipment.
- (c) Waste Analysis and Trial Tests. In addition to the waste analysis required by subsection (b) of § 325.333 of this title (relating to General), whenever a hazardous waste which is substantially different from waste previously processed in a processing system or equipment at the facility is to be processed in that system or equipment or a substantially different system than any previously used at the facility is to be used to chemically process hazardous waste, the owner or operator must, before processing the different waste or using the different system or equipment:
 - (1) Conduct waste analyses and trial processing tests (e.g. , bench scale or pilot plant scale tests); or
 - (2) Obtain written documented information on similar processing of similar waste under similar operating conditions to show that this proposed processing will meet all applicable requirements of this subsection. As required by subsection (b) of § 325.333 of this title (relating to General), the waste analysis plan must include analyses needed to comply with subsections (f) and (g) of this section. As required by subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting), the owner or operator must place the results from each waste analysis and trial

test, or the documented information, in the operating record of the facility.

- (d) Inspections. The owner or operator of a processing facility must inspect, where present:
- (1) Discharge control and safety equipment (e.g. , waste feed cut-off systems, by-pass systems, drainage systems, and pressure-relief systems) at least once each operating day to ensure that it is in good working order;
 - (2) Data gathered from monitoring equipment (e.g. , pressure and temperature gauges) at least once each operating day to ensure that the processing system or equipment is being operated according to its design;
 - (3) The construction materials of the processing system or equipment, at least weekly, to detect corrosion or leaking of fixtures or seams; and
 - (4) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g. , dikes), at least weekly, to detect erosion or obvious signs of leakage (e.g. , wet spots or dead vegetation). As required by subsection (d)(3) of § 325.333 of this title (relating to General), the owner or operator must remedy any deterioration or malfunction he finds.
- (e) Closure. At closure, all hazardous waste and hazardous waste residues must be removed from processing systems or equipment, discharge control equipment, and discharge confinement structures. At closure, as throughout the operating period, unless the owner or operator can demonstrate that any solid waste removed from his processing system or equipment is not a hazardous waste as set forth in § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), the owner or operator becomes a generator of hazardous waste for any hazardous waste removed from the facility and must manage it in accordance with all applicable requirements of §§ 325.291 - 325.299 of this title (relating to Generators).
- (f) Special Requirements for Ignitable or Reactive Waste. Ignitable or reactive waste must not be placed in a processing system or equipment unless:
- (1) The waste is processed, rendered, or mixed before or immediately after placement in the processing system or equipment so that:
 - (A) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 40 CFR § 261.21 or § 261.23;

and

(B) Subsection (f) of § 325.333 of this title (relating to General) is complied with.

(2) The waste is processed in such a way that it is protected from any material or conditions which may cause the waste to ignite or react.

(g) Special Requirements for Incompatible Wastes.

(1) Incompatible wastes or incompatible wastes and materials --see 40 CFR Part 264 or Part 265, Appendix V, as adopted by reference in subsection (f) of § 325.333 of this title (relating to General)--must not be placed in the same processing system or equipment unless subsection (f) of § 325.333 of this title (relating to General) is complied with.

(2) Hazardous waste must not be placed in unwashed processing equipment which previously held an incompatible waste or material unless subsection (f) of § 325.333 of this title (relating to General) is complied with.

§ 325.349 General Standards for Land Disposal Facilities.

(a) Purpose, scope, and applicability.

(1) This section establishes minimum standards for the management of new or permitted municipal solid waste land disposal facilities for disposal of hazardous waste and for groundwater protection for those facilities.

(2) This section applies to owners and operators of new or permitted municipal solid waste landfills, surface impoundments, waste piles, and land treatment facilities to be used for disposal of hazardous waste.

(b) Application of other regulations. The regulations contained in § 325.331 of this title (relating to Purpose and Scope), § 325.332 of this title (relating to Applicability), § 325.333 of this title (relating to General), § 325.334 of this title (relating to Preparedness and Prevention), § 325.335 of this title (relating to Contingency Plan and Emergency Procedures), § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting), § 325.337 of this title (relating to Groundwater Monitoring Requirements for Interim Status Facilities), § 325.338 of this title (relating to Closure and Post-Closure Requirements), § 325.339 of this title (relating to Financial Requirements), and § 325.350 of this title (relating to Permits) are applicable to owners and operators of facilities subject to this section.

(c) Standards for owners and operators of land disposal facilities.

(1) Except as otherwise provided in this section and to the extent consistent with the Solid Waste Disposal Act, Article 4477-7, V.T.C.S., and other rules of this chapter, the department adopts by reference the following EPA regulations:

(A) 40 CFR Part 264, Subpart F, Groundwater Protection, July 26, 1982, as amended April 1, 1983;

(B) 40 CFR Part 264, Subpart K, Surface Impoundments, July 26, 1982;

(C) 40 CFR Part 264, Subpart L, Waste Piles, July 26, 1982;

(D) 40 CFR Part 264, Subpart M, Land Treatment, July 26, 1982, as amended April 1, 1983;

(E) 40 CFR Part 264, Subpart N, Landfills, July 26, 1982, except for 40 CFR § 264.314(a)(1);

(F) 40 CFR Part 264, Appendix IV, July 26, 1982;

(G) 40 CFR Part 264, Appendix V, January 12, 1981.

- (2) Unless the context of the rules and regulations adopted under paragraph (1) of this subsection indicate otherwise, the following substitution of terms will be made.

(A) Texas Department of Health (TDH) will be used in lieu of U.S. Environmental Protection Agency (EPA).

(B) For regional administrator substitute commissioner of health, Texas Department of Health, or department (consistent with the duties and responsibilities of the commissioner of health and delegated authorities within the department) will be used in lieu of regional administrator.

- (3) Where reference is made within the body of the rules and regulations adopted under paragraph (1) of this subsection to other federal rules and regulations not so adopted, the equivalent department regulations apply. The following examples are provided. If this list does not correlate all referenced federal rules and regulations with applicable department regulations, then the owner or operator shall comply with the referenced federal rules or regulations or obtain the applicable regulations from the department.

Federal Rule/Regulations - Applicable Department Regulation of this Title

- | | |
|--------------------------------------|--|
| (A) 40 CFR § 264.1 | - § 325.331 Purpose and Scope
§ 325.332 Applicability |
| (B) 40 CFR Part 261
Appendix VIII | - None, Use 40 CFR Part 261
Appendix VIII |
| (C) 40 CFR §§ 264.117 -
264.120 | - § 325.338 Closure and Post-
Closure
Requirements |
| (D) 40 CFR § 264.112 | - § 325.338 Closure and Post-
Closure
Requirements |
| (E) 40 CFR § 261.21 | - § 325.272 Definitions of
Terms and
Abbreviations,
i.e. , Ignitabili |

- (F) 40 CFR § 261.3(d) - § 325.272 Definitions of Terms and Abbreviations, i.e. , Hazardous Waste
 - (G) 40 CFR § 261.23 - § 325.272 Definitions of Terms and Abbreviations, i.e. , Reactivity
 - (H) 40 CFR § 261.23(a)(5) - § 325.272 Definitions of Terms and Abbreviations, i.e. , Hazardous Waste
 - (I) 40 CFR § 264.142 - § 325.339 Financial Requirements
 - (J) 40 CFR § 264.144 - § 325.339 Financial Requirements
 - (K) 40 CFR § 264.17(b) - § 325.333(f) General
 - (L) 40 CFR § 270.63(c) - § 325.350 Permits
 - (M) 40 CFR § 144.77 - None, Use 40 CFR § 144.7
 - (N) 40 CFR § 264.15 - § 325.333(d) General
 - (O) 40 CFR § 264.73 - § 325.336(c) Manifest System, Record Keeping, and Reporting
 - (P) 40 CFR 260.10 - § 325.272 Definitions of Terms and Abbreviations
- (4) The federal regulations adopted by reference in this subsection are indexed and filed in the Bureau of Solid Waste Management, Texas Department of Health office, located at 1100 West 49th Street, Austin, Texas 78756, and are available for public inspection during regular working hours.
- (5) Throughout the operating period, at closure, or during the post-closure period, unless the owner or operator can demonstrate that any solid waste removed from a land disposal facility is not hazardous as set forth in § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions), the owner or operator becomes a generator of hazardous waste for any waste removed from the facility and must manage it in accordance with all applicable requirements of §§ 325.291 - 325.299 of this title (relating to Generators).

§ 325.350 Permits.

(a) Scope.

- 270.10
(e)
- (1) Permits. No person may operate an existing municipal hazardous waste management facility without having obtained interim status or a permit from the department for that facility. For purposes of this subchapter, the term "operation" includes the storage, processing (treatment), or disposal of hazardous waste and any construction-related elements which may affect the safe and proper management of hazardous waste at the facility or the implementation of the standards prescribed by this subchapter.

(A) Existing Hazardous Waste Management Facility Interim Status. An owner or operator of an existing hazardous waste management facility shall satisfy the following requirements in clauses (i) - (iv) to obtain and maintain interim status under § 3005(e) of RCRA (noncompliance may result in the determination of lack of entitlement to interim status and operation without a permit):

- (i) Comply with § 325.275 of this title (relating to Notification of Hazardous Waste Activity).
- (ii) Submit Part A of a hazardous waste management facility permit application to the department by the earliest of the following dates:
- (I) Six months after publication of federal (EPA) or department rules which first require compliance with the standards of 40 CFR Parts 265 or 266 or the comparable standards of §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators); or
- (II) Thirty days after the date the owner or operator first becomes subject to the facility standards identified in subclause (I) of this clause.
- (iii) By publication in the Texas Register, the department may extend the date by which owners or operators of specified classes of existing hazardous waste management facilities must submit their Part A if it finds that there is substantial confusion as to whether the owners or operators of such facilities are required to file a permit application and such confusion is attributed to ambiguities in the department's rules which relate to interim status.

- (iv) By compliance order, the department may extend the date by which the owner or operator of an existing hazardous waste management facility is required to submit Part A of the permit application.
- (B) New Hazardous Waste Management Facilities.
 - (i) An application may be filed with the department anytime after the effective date of these rules for a permit to construct and operate a facility for the treatment, storage, and/or disposal of hazardous waste.
 - (ii) Part A, Part B, and other applicable permit application forms included in §§ 325.901 - 325.906 of this title (relating to Forms and Documents), shall be submitted at least 180 days before physical construction is expected to commence.
- (C) Existing Permit Renewal Application. Any hazardous waste management facility with an effective permit shall submit a new application at least 180 days before the expiration date of the effective permit.
- (D) Permits for Less than an Entire Facility. The department may issue or deny a permit for one or more units at a facility without simultaneously issuing or denying a permit to all of the units at the facility. The interim status of any unit for which a permit has not been issued or denied is not affected by the issuance or denial of a permit to any other unit at the facility.
- (2) Interim Status Facility Part B Submission. Existing hazardous waste management facilities operating under interim status may be required to submit Part B of a permit application anytime after the effective date of these regulations. Any owner or operator of existing hazardous waste management facilities operating under interim status shall have six months from the date of the request to submit Part B of the permit application. Part B may be submitted voluntarily anytime. Failure to furnish full information or a timely Part B is grounds for termination of interim status. Termination of interim status also occurs when final administrative disposition of a permit application is made.
- (3) Interim Status Facility Part A Update. If the owner or operator of an existing hazardous waste management facility has filed Part A of a permit application and has

not yet filed Part B, the owner or operator shall file an amended Part A application:

- (A) Within six months after § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions) or 40 CFR Part 261, Subparts C and D, have been revised to reflect additional hazardous wastes listed or identified by EPA if the facility is treating, storing, or disposing of any of those newly listed or identified wastes.
- (B) As necessary to comply with the following situations:
 - (i) Increases in the design capacity used at a facility if the department approves the change because of lack of available treatment, storage, or disposal capacity at other hazardous waste management facilities.
 - (ii) Changes in the processes for the treatment, storage, or disposal of hazardous waste may be made at a facility or additional processes may be added if the owner or operator submits a revised Part A permit application prior to such a change and the department approves the change because it is necessary to prevent a threat to human health or the environment because of an emergency, or it is necessary to comply with these regulations.
 - (iii) New hazardous wastes not previously identified in Part A of the permit application may be treated, stored, or disposed of at a facility if the owner or operator submits a revised Part A permit application prior to such a change and has the approval of the department.
 - (iv) Changes in the ownership or operational control of a facility may be made if the new owner or operator submits a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the requirements of § 325.339 of this title (relating to Financial Requirements) until the new owner or operator has demonstrated to the department that it is complying with that section. All other interim status duties are transferred effective immediately upon the date of the change of ownership or operational control of the facility. Upon demonstration to the department by the new owner or operator of

compliance with that section, the department shall notify the old owner or operator in writing that it no longer needs to comply with that part as of the date of demonstration.

- (C) The owner or operator who fails to comply with these updating requirements does not receive interim status as to waste covered by duly filed Part A applications. In no event shall changes be made to a hazardous waste management facility during interim status which amount to reconstruction of the facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds 50% of the capital cost of a comparable entirely new facility.
- (b) Duration and Limits of Permits. A permit is issued for a fixed term not to exceed 10 years and may not be extended beyond the maximum term by amendment, but may be revoked at any time if the operating conditions do not meet the minimum standards set forth in these regulations or for any other good cause. A permit is issued to a specific person, as defined in § 325.272 of this title (relating to Definitions of Terms and Abbreviations), and may not be transferred from one person to another without department approval. A permit is attached to the realty to which it pertains and may not be transferred from one location to another.
- (c) Transfer of Permits. Any person seeking to obtain the transfer of a permit which has been issued to another person by the department for a hazardous waste management facility shall make written application to the department for transfer approval. The applicant should consult with the department prior to making application for permit transfer to determine specific requirements for information which must accompany the application. Transfer of any permit shall be for the remaining life of the permit. Upon submission of required information to the satisfaction of the department, the decision will be made concerning the permit transfer. The department will process the application as a modification to the permit. Pending a decision on the permit transfer, the department will hold the permittee of record responsible for the proper operation of the site. Failure to give complete information or the submission of false information in the application shall constitute grounds for rejection of the application. The application shall be submitted in the form of a letter and shall normally provide the following information, except when determined otherwise in consultation with the department.
 - (1) A statement from the present permit holder that it is his desire that the permit be transferred.

- (2) Assurance from the present permit holder that necessary legal arrangements have been made to transfer jurisdiction or ownership to applicant of the site as described in the legal description included in the permit.
 - (3) The name and mailing address of the new property owner if a change in ownership is involved.
 - (4) A statement from the applicant that he has reviewed the requirements of the subject permit and its special provisions, the engineer's Site Development Plan upon which the permit is based, the department's municipal solid waste management regulations and all official actions related to this site, and that he agrees to assume the legal responsibility for the operation of the site according to the foregoing requirements if the permit transfer is approved.
 - (5) If the applicant desires to make changes to the Site Development Plan, he must submit the prepared changes to the department for approval.
 - (6) Evidence of financial responsibility which assures the department that the applicant has sufficient assets to properly operate the site and to provide proper closure. This assurance must comply with the provisions of § 325.339 of this title (relating to Financial Requirements).
 - (7) Evidence of competency to operate the site to include landfilling and earthmoving experience of key personnel and the numbers, makes, models, and condition of all equipment to be dedicated to site operation. A firm commitment to provide backup equipment by lease, purchase, or diversion from other activities is also required.
 - (8) An up-to-date Site Development Plan showing any changes to the drainage throughout the site area, ground and surface water protective measures, depths of trenches, special-use areas, final topographies, etc. , which differ from the original engineering Site Development Plan.
 - (9) An up-to-date Site Operating Plan providing a day-to-day operational guide outlining cover requirements and techniques, sequence of sector development, excavation procedures, lining techniques, and final cover procedures if present or proposed operating procedures differ from those proposed by the original permittee.
- (d) Modification, Revocation and Reissuance, Termination, and Minor Modifications.

- (1) Permit Modifications. When the department receives any information; receives a request of an interested person (including the permittee) for modification, revocation, reissuance or termination; or conducts a review of the permit file, the department may determine whether or not cause exists for modification or revocation, reissuance, and termination. The department may request additional information. If and only if cause exists, the department may modify or revoke and reissue the permit. An updated application may be required. When a permit is to be modified, only the conditions subject to modification are reopened. If a permit is to be revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. Except for minor modifications, applicable procedures must be followed.
- (2) Causes for Modification. The following are causes for modifications, but not for revocation and reissuance of permits. The following may also be causes for revocation and reissuance if the permittee requests or agrees.
 - (A) Material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify permit conditions that are different or absent in the existing permit.
 - (B) Information provided to the department which it feels necessitates a modification of the permit.
 - (C) The permit is based upon standards or rules which have been changed by promulgation of amended standards or rules or by judicial decision after the permit was issued. Permits may be modified during their terms for this cause only as follows:
 - (i) Following promulgation of amended standards and rules when the permit condition to be modified is based upon a promulgated part of the municipal solid waste management regulations and the department has revised, withdrawn, or modified that portion of the rule on which the permit condition was based if a permittee requests modification within 90 days after the final rule on which the request is based is published in the Texas Register .
 - (ii) Following judicial decisions where a court of competent jurisdiction has remanded and stayed department enforcement of adopted rules if the remand and stay concerns that portion of the rules on which the permit condition is based and a request is filed in accordance with paragraph (4) of this subsection within 90 days of judicial remand.

- (D) The department determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no other reasonably available remedy.
- (E) Operating conditions do not meet the minimum standards set forth in these rules.
- (F) When modification of a closure plan is required under subsections (c)(2) or (h)(2) of § 325.338 of this title (relating to Closure and Post-Closure Requirements).
- (G) After the department receives the notification of expected closure required under subsection (d) of § 325.338 of this title (relating to Closure and Post-Closure Requirements), when the department determines that extension of the 90- or 180-day periods under subsection (d) of § 325.338 of this title (relating to Closure and Post-Closure Requirements), modification of the 30-year post-closure period under subsection (g)(1) of § 325.338 of this title (relating to Closure and Post-Closure Requirements), continuation of security requirements under subsection (g)(4) of § 325.338 of this title (relating to Closure and Post-Closure Requirements), or permission to disturb the integrity of the containment system under subsection (g)(5) of § 325.338 of this title (relating to Closure and Post-Closure Requirements) are unwarranted.
- (H) When the permittee has filed a request under subsection (a)(1)(H) of § 325.339 of this title (relating to Financial Requirements) for a variance to the level of financial responsibility or when the department demonstrates under subsection (a)(1)(H) of § 325.339 of this title (relating to Financial Requirements) that an upward adjustment of the level of financial responsibility is required.
- (I) When the corrective action program specified in the permit under subsection (c)(1)(A) of § 325.349 of this title (relating to General Standards for Land Disposal Facilities) has not brought the regulated unit into compliance with the groundwater protection standard within a reasonable period of time.
- (J) When the owner or operator has been conducting a compliance monitoring program under subsection (c)(1)(A) of § 325.349 of this title (relating to General Standards for Land Disposal Facilities) or a

corrective action program under subsection (c)(1)(A) of § 325.349 of this title (relating to General Standards for Land Disposal Facilities) and the compliance period ends before the end of the post-closure care period for the unit, modification may include a detection monitoring program which meets the requirements of subsection (c)(1)(A) of § 325.349 of this title (relating to General Standards for Land Disposal Facilities).

- (K) When a permit requires a compliance monitoring program under subsection (c)(1)(A) of § 325.349 of this title (relating to General Standards for Land Disposal Facilities), but monitoring data collected prior to permit issuance indicate that the facility is exceeding the groundwater protection standard.
 - (L) Where conditions applicable to units at a facility are not previously included in the facility's permit.
 - (M) When a land treatment unit is not achieving complete treatment of hazardous constituents under its current permit conditions.
- (3) Causes for Modification or Revocation and Reissuance. A permit may be modified or revoked and reissued if cause exists for termination and the department determines that modification or revocation and reissuance is appropriate. Cause also exists when a permit transfer is applied for as noted in subsection (c) of this section.
- (4) Procedure for Modification and Revocation and Reissuance.
- (A) All requests for permit modification or revocation and reissuance must be in writing and contain facts and reasons supporting the request.
 - (B) The department shall follow the same procedures to modify or revoke and reissue a permit, with the exception of minor modifications, as it does for issuance of a permit.
 - (C) During any revocation and reissuance proceeding, the permittee shall comply with all conditions of the existing permit until a new final permit is issued.
- (5) Minor Modifications. Minor modifications may only:
- (A) Correct typographical errors.
 - (B) Require more frequent monitoring or reporting.

- (C) Change an interim compliance date in a schedule of compliance provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement.
- (D) Allow for a change of ownership or operational control of a facility where the department determines that no other change in the permit is necessary provided that a written agreement containing specific dates for transfer of permit responsibility, coverage, and liability between the current and new permittees have been submitted to the department.
- (E) Change the lists of facility emergency coordinators or equipment in the permit's contingency plan.
- (F) Make changes related to closure such as:
 - (i) Change estimates of maximum inventory as found under subsection (c) of § 325.338 of this title (relating to Closure and Post-Closure Requirements);
 - (ii) Change estimates of expected year of closure or schedules for final closure under subsection (c) of § 325.338 of this title (relating to Closure and Post-Closure Requirements); or
 - (iii) Approve periods longer than 90 days or 180 days under subsection (d) of § 325.338 of this title (relating to Closure and Post-Closure Requirements).
- (G) Change the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided that the change is minor.
- (H) Change the operating requirements set in the permit for conducting a trial burn, provided that the change is minor.
- (I) Grant one extension of the time period for determining operational readiness following completion of construction for up to 720 hours operating time for treatment of hazardous waste.
- (J) Change the treatment program requirements for land treatment units under § 325.349 of this title (relating to General Standards for Land Disposal Facilities) to improve treatment of hazardous constituents, provided that the change is minor.

- (K) Change any conditions specified in the permit for land treatment units under subsection (c) of § 325.349 of this title (relating to General Standards for Land Disposal Facilities), provided that the change is minor.
 - (L) Allow a second treatment demonstration for land treatment to be conducted when the results of the first demonstration have not shown the conditions under which the waste or wastes can be treated completely as required by subsection (c) of § 325.349 of this title (relating to General Standards for Land Disposal Facilities), provided the conditions for the second demonstration are substantially the same as the conditions for the first demonstration.
- (6) Termination of Permits. The following are causes for terminating a permit during its term or for denying a permit renewal application.
- (A) Noncompliance by the permittee with any condition of the permit;
 - (B) Permittee's failure in the application or during the permit issuance process to disclose fully all facts or the permittee's misrepresentation of any facts at any time;
 - (C) The permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or
 - (D) Operating conditions do not meet the minimum standards in these rules.
- (e) Property Rights and Land Use Considerations.
- (1) Property Rights. It is the responsibility of a permittee to possess or acquire a sufficient interest in or right to the use of the property for which a permit is issued, including the access route thereto. The granting of a permit does not convey any property rights or interest in either real or personal property nor does it authorize any injury to private property, invasion of personal rights; impairment of previous contract rights; or any infringement of federal, state, or local regulations outside the scope of the authority under which this permit is issued.
 - (2) Land Use Considerations. In addition to the requirements of §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators), the location of a proposed facility or substantial alterations or additions

to an existing facility, requiring a permit modification under subsection (d) of this section, shall consider the land use criteria contained in § 325.74 of this title (relating to Technical Information Required for Landfill Sites Serving 5,000 Persons or More - Site Development Plan). The more stringent requirement or criteria shall apply.

(f) Emergency Permits. Notwithstanding any other provision of these rules, in the event the commissioner finds an imminent and substantial endangerment to human health or the environment, the commissioner may issue an emergency permit to a non-permitted facility to allow treatment, storage, or disposal of hazardous waste or to a permitted facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective permit. The emergency permit:

- (1) May be oral or written. If oral, it shall be followed within five days by a written emergency permit.
- (2) Shall not exceed 90 days in duration.
- (3) Shall clearly specify the hazardous wastes to be received and the manner and location of their treatment, storage, or disposal.
- (4) May be terminated by the commissioner at any time without process if the commissioner determines that termination is appropriate to protect human health and the environment.
- (5) Shall be accompanied by a published public notice including the name and address of the department, the name and location of the facility, a brief description of the wastes involved, a brief description of the action authorized and reasons for authorizing it, and the duration of the emergency permit.
- (6) Shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable parts of these hazardous waste rules.

(g) Permit Conditions. The following conditions shall be incorporated into each and every permit issued under this subchapter. (The conditions may be incorporated by specific reference to this subsection of the department's municipal solid waste management regulations.)

- (1) Duty to Comply. The permittee must comply with all conditions of the permit. Any permit noncompliance constitutes a violation of the Solid Waste Disposal Act and is grounds for enforcement action, for permit revocation or amendment, or for denial of a permit renewal application.

- (2) Duty to Reapply. If activities regulated by this permit are to be continued after the permit's expiration date, a new permit must be applied for and obtained.
- (3) Need to Halt or Reduce Activity Not a Defense. It shall not be a defense in an enforcement action to claim that it would have been necessary to halt or reduce activity in order to maintain compliance with the conditions of this permit.
- (4) Duty to Mitigate. In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.
- (5) Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment, control, and related appurtenances which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, adequate process controls, adequate waste analysis capability, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.
- (6) Permit Actions. The permit may be revoked, amended, or terminated for cause. The filing of a request by permittee for a permit amendment, revocation, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- (7) Duty to Provide Information. The permittee shall furnish to the department, within a reasonable time, any relevant information the department requests to determine whether cause exists for amending, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The permittee shall also furnish to the department, upon request, copies of records required to be kept by the department.
- (8) Reporting and Recording of Monitoring Results. All permits shall specify:
 - (A) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods;

- (B) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring; and
 - (C) Applicable reporting requirements based upon the impact of the regulated activity and as specified in this subchapter.
- (9) Property Rights. The permit does not convey any property rights of any sort or any exclusive privilege (see also subsection (e) of this section).
 - (10) Representative Data. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - (11) Records Retention. The permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations for the active life of the facility. In addition, records for disposal facilities shall be maintained for the post-closure care period as well. The permittee shall retain records of all monitoring information including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit for a period of at least three years from the date of the sample, measurement, report, or application. This retention period may be extended on request of the department at any time.
 - (12) Records Content. Records of monitoring information shall include:
 - (A) The date, exact place, and time of sampling or measurements;
 - (B) The name of the persons who performed the sampling or measurement;
 - (C) The dates analyses were performed;
 - (D) The names of the persons who performed the analyses;
 - (E) The analytical techniques or methods used; and
 - (F) The results of such analyses.
 - (13) Planned Changes. Permittee shall give notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility.

- (14) **Anticipated Noncompliance.** The permittee shall give advance notice to the department of any planned physical changes in the permitted facility or activity change which may result in noncompliance with permit requirements. For a new facility, the permittee shall not treat, store, or dispose of hazardous waste; and for a facility being modified, the permittee shall not treat, store, or dispose of hazardous waste in the modified portion of the facility until:
- (A) The permittee has submitted to the bureau by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating the facility has been constructed or modified in compliance with the permit; and
 - (B) The department has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit, or if within 15 days of the date of submission of the letter in subparagraph (A) of this paragraph the permittee has not received notice from the department of intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of hazardous waste.
- (15) **Compliance Schedule.** Reports of compliance or noncompliance with, or any progress report on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (16) **Twenty-Four Hour Reporting.** The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The report shall include:
- (A) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.
 - (B) Any information of a release or discharge of hazardous waste or of a fire or explosion from a hazardous waste management facility which could

threaten the environment or human health outside the facility. The department may waive the five-day written notice requirement in favor of a written report within 15 days for any facility that must make a written report under § 325.335 of this title (relating to Contingency Plan and Emergency Procedures).

- (C) Both the oral and written report of the occurrence and its cause shall include:
 - (i) Name, address, and telephone number of the owner or operator and the facility;
 - (ii) Date, time, and type of incident;
 - (iii) Name and quantity of material involved;
 - (iv) The extent of injuries, if any;
 - (v) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and
 - (vi) Estimated quantity and disposition of recovered material that resulted from the incident.
- (17) Manifest Discrepancy Report. If a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy and comply with § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting).
- (18) Unmanifested Waste Report. An unmanifested waste report must be submitted to the department within 15 days of receipt of unmanifested waste as explained under subsection (e)(3) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting).
- (19) Annual Report. An annual report must be submitted covering facility activities during the previous calendar year as required under subsection (e)(1) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting).
- (20) Other Information. Where the permittee becomes aware that he failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the department, he shall promptly submit such facts or information.
- (21) Monitoring Reports. Monitoring results shall be reported at the intervals specified in the permit, and as may be required by subsection (c)(1)(A) of § 325.349 of this

title (relating to General Standards for Land Disposal Facilities).

- (22) Facility Siting. Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance.
- (23) Monitoring Well Record Retention. The permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations for the active life of the facility and, for disposal facilities, for the post-closure care period as well. This period may be extended by the department at any time.
- (24) Information Release, Inspection and Entry, and Signatory Requirements. The provisions of subsections (d), (e), and (c) of § 325.271 of this title (relating to Purpose, Applicability, and Release of Information) concerning signatories, inspections, and release of information respectively.
- (25) Listing of Wastes. A list of the wastes or classes of wastes which will be treated, stored, or disposed of at the facility and a description of the processes to be used for treating, storing, and disposing of these hazardous wastes at the facility including design capacities of each storage, treatment, and disposal unit. Except in the case of containers, the description must identify the particular wastes or classes of wastes which will be treated, stored, or disposed of in particular equipment or locations.
- (26) Regulatory Standards. Each of the applicable requirements specified in §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators). Compliance with a hazardous waste facility permit during its term constitutes compliance with the regulations of this subchapter for the purposes of enforcement.
- (27) Permit Duration and Schedules of Compliance. The department shall establish conditions, as required on a case-by-case basis, for permits under subsections (b) and (r) of this section and paragraph (8) of this subsection concerning monitoring.
- (28) Effect of New Rules on a Permit Application. For a new permit application, an applicable requirement is a state statutory or regulatory requirement which takes effect prior to final administrative disposition of a permit.

- (29) Effect of New Rules on Modifications. For a permit which is being modified or revoked and reissued, any rule which takes effect prior to the modification or revocation and reissuance of a permit shall be a requirement if applicable to that permit.
 - (30) Specific Permit Requirements. New or reissued permits and, to the extent allowed under subsection (d) of this section, modified or revoked and reissued permits, shall incorporate each of the applicable requirements referenced in paragraphs (8), (26), (27), (28), and (29) of this subsection.
 - (31) Other Noncompliance. The permittee shall report all instances of noncompliance not reported as required by this subsection at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (16) of this subsection.
 - (32) Transfers. See subsection (c) of this section.
- (h) Application Information.
- (1) All permit applicants must provide the department with the following information, as a minimum, using the application form provided by the department:
 - (A) The activities conducted or to be conducted which require this permit.
 - (B) Name, mailing address, and location of the facility.
 - (C) Up to four Standard Industrial Codes (SIC) which best reflect the principal products or services provided by the facility.
 - (D) The owner's and operator's name, address, telephone number, ownership status, and status as federal, state, private, public, or other entity.
 - (E) Whether the facility is located on Indian lands.
 - (F) A listing of all permits or construction approvals received or applied for under any of the following programs; e.g. ,
 - (i) Underground Injection Control (UIC) program under the federal Safe Drinking Water Act.
 - (ii) National Pollutant Discharge Elimination System (NPDES) under the federal Clean Water Act.

- (iii) Prevention of Significant Deterioration program under the federal Clean Air Act.
 - (iv) National Emission Standards for Hazardous Pollutants preconstruction approval under the federal Clean Air Act.
 - (v) Ocean dumping permits under the federal Marine Protection Research and Sanctuaries Act.
 - (vi) Dredge or fill permits under § 404 of the federal Clean Water Act.
 - (vii) Hazardous Waste Management program under RCRA.
 - (viii) Nonattainment program under the Clean Air Act.
 - (ix) Other relevant environmental regulatory programs.
- (G) A topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within 1/4 mile of the facility property boundary.
- (H) A brief description of the nature of the business.
- (2) In addition to the application information required in paragraph (1) of this subsection, Part A of a permit application shall include the following information:
- (A) The latitude and longitude of the facility;
 - (B) An indication of whether the facility is new or existing and whether it is a first or revised application;
 - (C) For existing facilities, a scale drawing of the facility showing the location of all past, present, and future treatment, storage, and disposal areas;
 - (D) For existing facilities, photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas;

- (E) A description of the processes to be used for treating, storing, and disposing of hazardous waste, and the design capacity of these items; and
 - (F) A list of any hazardous wastes which are treated, stored, or disposed at the facility; an estimate of the quantity of such wastes to be treated, stored, or disposed annually; and a general description of the processes to be used for such wastes.
- (3) Part B of the application consists of requirements for general and technical information applicable to the facility and requirements for groundwater protection. The technical information requirements reflect the standards promulgated in §§ 325.331 - 325.350 of this title (relating to Facility Owners and Operators). Part B of the application shall include the following.
- (A) General information for all facilities:
 - (i) A general description of the facility.
 - (ii) Chemical and physical analyses of the hazardous wastes to be handled at the facility, as required under subsection (b) of § 325.333 of this title (relating to General).
 - (iii) A copy of the waste analysis plan required under subsection (b)(5) of § 325.333 of this title (relating to General).
 - (iv) A description of the security procedures and equipment required by subsection (c) of § 325.333 of this title (relating to General) or a justification demonstrating the reasons for requesting a waiver of this requirement.
 - (v) A copy of the general inspection schedule required by subsection (d) of § 325.333 of this title (relating to General).
 - (vi) A justification of any request for a waiver of any of the preparedness and prevention requirements listed under § 325.334 of this title (relating to Preparedness and Prevention).
 - (vii) A copy of the contingency plan required by § 325.335 of this title (relating to Contingency Plan and Emergency Procedures).
 - (viii) A description of procedures, structures, or equipment used at the facility to:

- (I) Prevent uncontrolled reaction of incompatible wastes.
- (II) Prevent hazards in unloading operations.
- (III) Prevent runoff from hazardous waste handling areas to other areas of the facility or environment or to prevent flooding.
- (IV) Prevent contamination of water supplies.
- (V) Mitigate effects of equipment failure and power outages.
- (VI) Prevent undue exposure of personnel to hazardous waste.
- (ix) Information on traffic pattern, volume, and control; access road surfacing and load bearing capacity; traffic control signals; and estimates of volume.
- (x) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required to demonstrate compliance with subsection (f) of § 325.333 of this title (relating to General).
- (xi) Facility location information.
 - (I) Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain. This identification must indicate the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where a FIA map is not available. Information shall be provided identifying the 100-year flood level and any other special flooding factors which must be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood.
 - (II) Owners and operators of facilities located in the 100-year floodplain must provide the following information:
 - (-a-) Engineering analysis to indicate the various hydrodynamic and

hydrostatic forces expected to result at the site as a consequence of a 100-year flood.

(-b-) Structural or other engineering studies showing the design of operational units and flood protection devices at the facility and how these will prevent washout.

(-c-) If applicable, and in lieu of items (-a-) and (-b-) of this subclause, a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:

(-1-) Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility;

(-2-) A description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with this subchapter;

(-3-) The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use; and

(-4-) The potential for accidental discharges of the waste during movement.

(III) Existing facilities not in compliance with floodplain criteria shall provide a plan

showing how the facility will be brought into compliance and a schedule for compliance.

- (xii) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the facility in a safe manner as required to demonstrate compliance with subsection (e) of § 325.333 of this title (relating to General).
- (xiii) A copy of the closure plan and, where applicable, the post-closure plan required by § 325.338 of this title (relating to Closure and Post-Closure Requirements).
- (xiv) For interim status standard facilities, documentation that a notice has been placed in the deed or appropriate alternate instrument as required by subsections (i) and (j) of § 325.338 of this title (relating to Closure and Post-Closure Requirements).
- (xv) The most recent closure cost estimate for the facility prepared in accordance with § 325.338 of this title (relating to Closure and Post-Closure Requirements) plus a copy of the financial assurance mechanism adopted in compliance with § 325.339 of this title (relating to Financial Requirements).
- (xvi) Where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with § 325.338 of this title (relating to Closure and Post-Closure Requirements) plus a copy of the financial assurance mechanism adopted in compliance with § 325.339 of this title (relating to Financial Requirements).
- (xvii) Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of § 325.339 of this title (relating to Financial Requirements). For a new facility, documentation showing the amount of insurance required under § 325.339 of this title (relating to Financial Requirements) will be in effect before initial receipt of hazardous waste for treatment, storage, or disposal. A request for variance in the amount of required coverage for a new or existing facility may be submitted to the Texas Department of Health.

(xviii) Where appropriate, proof of coverage by a state financial mechanism as explained under § 325.339 of this title (relating to Financial Requirements).

(xix) A topographic map showing a distance of 1,000 feet around the facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet). Contours must be shown on the map. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters (5 feet) if relief is greater than 6.1 meters (20 feet) or an interval of 0.6 meters (2 feet) if relief is less than 6.1 meters (20 feet). Owners and operators of hazardous waste management facilities located in mountainous areas should use larger contour intervals to adequately show topographic profiles of facilities. The map shall clearly show the following:

- (I) Map scale and date;
- (II) 100-year floodplain area;
- (III) Surface waters including intermittent streams;
- (IV) Surrounding land uses;
- (V) A wind rose;
- (VI) Orientation of map;
- (VII) Legal boundaries of the hazardous waste management facility site;
- (VIII) Access control;
- (IX) Injection and withdrawal wells both on-site and off-site;
- (X) Buildings; treatment, storage, or disposal operations; or other structures;
- (XI) Barriers for drainage or flood control; and
- (XII) Location of operational units within the facility site where hazardous waste is or will be treated, stored, or disposed (including equipment cleanup areas).

(xx) Applicants may be required to submit such information as may be necessary to enable the department to carry out its duties under other state laws.

(B) Specific information requirements. Except as provided in § 325.332 of this title (relating to Applicability), the following additional information is required from owners or operators of facilities that are used or to be used for storage, treatment, or disposal of hazardous waste.

(i) For facilities that store containers of hazardous waste:

(I) A description of the containment system to demonstrate compliance with § 325.340 of this title (relating to Use and Management of Containers) showing at least the following:

(-a-) Basic design parameters, dimensions, and materials of construction;

(-b-) How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system;

(-c-) Capacity of the containment system relative to the number and volume of containers to be stored;

(-d-) Provisions for preventing runoff and managing run-on; and

(-e-) How accumulated liquids can be analyzed and removed to prevent overflow.

(II) Sketches, drawings, or data demonstrating compliance with subsections (g) and (h) of § 325.340 of this title (relating to Use and Management of Containers) concerning location and isolation for containers holding ignitable, reactive, or incompatible wastes, as applicable.

(III) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance

with subsection (f)(4) of § 325.340 of this title (relating to Use and Management of Containers), including:

- (-a-) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and
 - (-b-) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.
- (IV) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with subsection (h)(1) and (2) of § 325.340 of this title (relating to Use and Management of Containers) and subsection (f)(3) and (4) of § 325.333 of this title (relating to General).
- (ii) For facilities that use tanks to store or treat hazardous waste, description of design and operation procedures which demonstrate compliance with § 325.341 of this title (relating to Tanks), including:
- (I) References to design standards or other available information used (or to be used) in design and construction of the tank.
 - (II) A description of design specifications including identification of construction materials and lining materials (include pertinent characteristics such as corrosion or erosion resistance).
 - (III) Tank dimensions, capacity, and shell thickness.
 - (IV) A diagram of piping, instrumentation, and process flow.
 - (V) Description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g. , vents).
 - (VI) Description of procedures for handling incompatible ignitable or reactive wastes including the use of buffer zones.

(iii) For facilities that store or treat hazardous waste in surface impoundments, the department adopts by reference the requirements of 40 CFR § 270.17 which was adopted by EPA on April 1, 1983. These regulations are indexed and filed in the Bureau of Solid Waste Management, Texas Department of Health office, located at 1100 West 49th Street, Austin, Texas 78756, and are available for public inspection during regular working hours.

(I) Where adopted federal regulations refer to 40 CFR § 264.1, the reference is more properly made to § 325.331 of this title (relating to Purpose and Scope) and to § 325.332 of this title (relating to Applicability).

(II) Other references to 40 CFR Part 264 are adopted under § 325.349 of this title (relating to General Standards for Land Disposal Facilities).

(III) Where adopted federal regulations refer to 40 CFR § 270.14(b)(5), (7), and (13), the reference is more properly made to subsection (h)(3)(A)(v), (vii), and (xiii) of this section.

(iv) For facilities that store or treat hazardous waste in waste piles, the department adopts by reference the requirements of 40 CFR § 270.18 which was adopted by EPA on April 1, 1983. These regulations are indexed and filed in the Bureau of Solid Waste Management, Texas Department of Health office, located at 1100 West 49th Street, Austin, Texas 78756, and are available for public inspection during regular working hours.

(I) Where adopted federal regulations refer 40 CFR § 264.1, the reference is more properly made to § 325.331 of this title (relating to Purpose and Scope) and to § 325.332 of this title (relating to Applicability).

(II) Other references to 40 CFR Part 264 are adopted under § 325.349 of this title (relating to General Standards for Land Disposal Facilities).

(III) Where adopted federal regulations refer to 40 CFR § 270.14(a)(5) and (13), reference is more properly made to subsection (h)(3)(B)(v) and (xiii) of this section.

(v) For facilities that incinerate hazardous waste, the department adopts by reference the requirements of 40 CFR § 270.19 which was adopted by EPA on April 1, 1983, as amended on June 30, 1983, and 40 CFR § 270.62 which was adopted by EPA on April 1, 1983. These regulations and any referenced federal regulations are indexed and filed in the Bureau of Solid Waste Management, Texas Department of Health office, located at 1100 West 49th Street, Austin, Texas 78756, and are available for public inspection during regular working hours. The following subclauses of this clause identify references made by EPA in the rules adopted in this clause and note the equivalent rule in this subchapter to which reference can be more properly made.

(I) Reference to 40 CFR §§ 264.340 - 264.351, is equivalent to reference to § 325.346 of this title (relating to Incinerators).

(II) Reference to 40 CFR § 261.23 is equivalent to reference to reactivity in § 325.272 of this title (relating to Definitions of Terms and Abbreviations).

(III) Where adopted federal regulations refer to 40 CFR Part 261, Appendix III or Appendix VIII, reference must be made to the federal regulations because there are no comparable department regulations.

(IV) Reference to 40 CFR § 270.42 is equivalent to reference to subsection (d) of this section.

(V) Reference to 40 CFR Part 261, Subpart C or Subpart D is equivalent to subsection (b) of § 325.274 of this title (relating to Hazardous Waste Regulated, Exclusions, and Exceptions).

(VI) Reference to 40 CFR § 270.16 is equivalent to reference to subsection (h)(3)(B)(ii) of this section.

(VII) Reference to 40 CFR § 270.11 is equivalent to reference to subsection (d) of

§ 325.271 of this title (relating to Purpose, Applicability, and Release of Information).

- (VIII) Where adopted federal regulations refer to the director, reference is made to the commissioner of health.
 - (IX) Where adopted federal regulations refer to 40 CFR § 270.6, reference must be made to the federal regulations because there are no comparable department regulations.
 - (X) Where the adopted federal regulations refer to Hazard Codes, reference must be made to the hazardous waste listings in 40 CFR Part 261, Subpart D, and the equivalent Texas Municipal Waste Code Numbers.
- (vi) For facilities that use land treatment to dispose of hazardous waste, the department adopts by reference the requirements of 40 CFR § 270.20 which was adopted by EPA on April 1, 1983, as amended on June 30, 1983, and 40 CFR § 270.63 which was adopted by EPA on April 1, 1983. These regulations and any referenced federal regulations are indexed and filed in the Bureau of Solid Waste Management, Texas Department of Health office, located at 1100 West 49th Street, Austin, Texas 78756, and are available for public inspection during regular working hours. The following subclauses of this clause identify the references made by EPA in the rules adopted by this clause with the equivalent rule in this subchapter to which references can be more properly made.
- (I) Where adopted federal regulations refer to the director, reference is made to the commissioner of health.
 - (II) Reference to 40 CFR §§ 264.271 - 264.282 is equivalent to reference to subsection (c)(1)(D) of § 325.349 of this title (relating to General Standards for Land Disposal Facilities).
 - (III) Reference to 40 CFR § 270.11 is equivalent to reference to subsection (d) of § 325.271 of this title (relating to Purpose, Applicability, and Release of Information).

- (IV) Reference to 40 CFR Part 264, Subpart M, is equivalent to reference to subsection (c)(1)(D) of § 325.349 of this title (relating to General Standards for Land Disposal Facilities).
- (V) Reference to 40 CFR § 124.15 is equivalent to reference to subsection (o) of this section.
- (VI) Reference to 40 CFR § 270.42 is equivalent to reference to subsection (d)(5) of this section.
- (VII) Reference to 40 CFR § 270.41(a) and (b) is equivalent to reference to subsections (c) and (d) of this section.
- (VIII) Reference to 40 CFR § 264.13 is equivalent to reference to subsection (b) of § 325.333 of this title (relating to General).
- (IX) Reference to 40 CFR § 264.1 is equivalent to reference to § 325.331 of this title (relating to Purpose and Scope) and to § 325.332 of this title (relating to Applicability).
- (X) Reference to 40 CFR § 270.14(b)(5) or § 270.14(b)(13) is equivalent to subsection (h)(3)(A)(v) or (xiii) of this section, respectively.
- (vii) For facilities that dispose of hazardous waste in landfills, the department adopts by reference the requirements of 40 CFR § 270.21 which was adopted by EPA on April 1, 1983, as amended on June 30, 1983. These regulations and any referenced federal regulations are indexed and filed in the Bureau of Solid Waste Management, Texas Department of Health office, located at 1100 West 49th Street, Austin, Texas 78756, and are available for public inspection during regular working hours.
 - (I) Where adopted federal regulations refer to 40 CFR § 264.1, reference is more properly made to § 325.332 of this title (relating to Applicability).
 - (II) Where adopted federal regulations refer to 40 CFR Part 264, Subpart F, and §§ 264.301 - 264.314, reference is more properly made

to § 325.349 of this title (relating to General Standards for Land Disposal Facilities) which adopts this reference.

- (III) Where adopted federal regulations refer to the director, reference is more properly made to the commissioner of health.
- (IV) Where adopted federal regulations refer to 40 CFR § 270.14(a)(5) and (13), reference is more properly made to subsection (h)(3)(B)(v) and (xiii) of this section.
- (C) For the protection of groundwater at land disposal facilities, the department adopts by reference the requirements of 40 CFR § 270.14(c) which was adopted by EPA on April 1, 1983, as amended on June 30, 1983. These regulations and any referenced federal regulations are indexed and filed in the Bureau of Solid Waste Management, Texas Department of Health office, located at 1100 West 49th Street, Austin, Texas 78756, and are available for public inspection during regular working hours.
 - (i) Where adopted federal regulations refer to 40 CFR § 270.14(b)(19), reference is more properly made to subsection (h)(3)(A)(xix) of this section.
 - (ii) Where adopted federal regulations refer to 40 CFR Part 261, Appendix VIII, reference must be made to the federal regulations because there are no comparable department regulations.
 - (iii) Where adopted federal regulations refer to the regional administrator, reference is more properly made to the commissioner of health.
 - (iv) Where adopted federal regulations refer to 40 CFR §§ 264.90 - 264.100, reference is more properly made to subsection (c)(1)(A) of § 325.349 of this title (relating to General Standards for Land Disposal Facilities).
 - (v) Where adopted federal regulations refer to 40 CFR §§ 265.90 - 265.94, reference is more properly made to subsections (a) - (e) of § 325.337 of this title (relating to Groundwater Monitoring Requirements for Interim Status Facilities).
- (4) Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under paragraphs (1), (2), and (3)

of this subsection for a period of at least three years from the date the application is signed.

- (5) All of the information and data requirements of this subsection shall be submitted as part of the application, except where the chief of the bureau or his designated representative temporarily grants a request by an applicant for a waiver of a requirement which the bureau considers not essential to the evaluation of the application or for holding a public hearing. A temporary waiver/variance shall be affirmed, modified, or set aside at the public hearing or during the final decision-making process. The applicant is responsible for presenting justification at the public hearing for the waiver/variance temporarily granted by the chief of the bureau. The request will be incorporated into the application.
- (i) Application Requirements. No person may operate a facility for the treatment, storage, or disposal of municipal hazardous waste without a permit, license, or interim status from the department. Either the owner or operator shall obtain the permit. The owner of the hazardous waste management facility must co-sign the application when the operator applies for the permit. Representatives from the department's regional or central offices are available to assist in determining type application requirements.
- (j) Preparation of Application. The application for a permit shall be prepared and signed by the applicant on a form to be provided by the department. In general, the application shall include information necessary to make an evaluation of the proposed operation to ensure that the facility is located, designed, and operated so that the health, welfare, and physical property of the public as well as the environment and endangered species are protected. The permit application must provide all necessary information and assurances to show that all applicable standards and requirements in this subchapter can and will be met. Failure to give complete information as requested on the application form or the submission of false information may constitute grounds for rejection of the application. Data presented in support of an application for a permit shall be prepared under the direction of a registered professional engineer authorized to practice in the State of Texas under the Texas Engineering Practice Act, Article 3271a, V.T.C.S. If a consultant is employed, a letter of appointment shall be submitted by the person making application confirming that the engineer is authorized to prepare plans and specifications.
- (k) Submission of Application. The application for a permit shall be submitted to the department with all the supporting data in the number of copies prescribed in the instructions on the application form unless otherwise advised. Upon receipt of

the application, the department will forward to the applicant a Notice of Filing of Application which the applicant, at his own expense, will cause to be published at least one time in a newspaper of general circulation in the area where the site is located. The notice shall include information that informs the public of the rights to comment on the application, their right to request a public hearing, and the name and address of the department employee to contact for information and/or a copy of the application. Such publication shall be accomplished by the applicant within 15 days after receipt of the Notice of Filing of Application and a publisher's affidavit relative to such publication shall be forwarded to the department immediately thereafter. The publication of this Notice of Filing of Application shall be in addition to the publication of the Notice of Public Hearing required by subsection (m) of this section.

- (1) Application Review Process. Upon receipt of an application, the bureau will make a preliminary evaluation to determine if the application is administratively and technically complete. If additional information is required, it will be requested of the applicant before continuing with the processing of the application. No permit shall be issued without a complete application. The completeness of any application for a permit shall be judged independently of the status of any other permit application or permit for the same facility.
- (1) Application Processing. Following receipt of all required information, the bureau will provide copies of the application or summaries of its contents to those agencies which have or may have a jurisdictional interest in the case and request their comments or recommendations. The agencies include:
 - (A) Texas Department of Water Resources (a separate permit may be required);
 - (B) Texas Air Control Board (a separate permit may be required);
 - (C) State Department of Highways and Public Transportation;
 - (D) Federal Aviation Administration;
 - (E) U.S. Army Corps of Engineers (a separate permit may be required);
 - (F) Mayor of the city in whose territorial or extraterritorial jurisdiction the site is located;
 - (G) Health authority of the city in whose territorial or extraterritorial jurisdiction the site is located;

- (H) County judge of the county in which the site is located;
 - (I) Health authority of the county in which the site is located;
 - (J) Federal and state agencies with jurisdiction over fish, shellfish, and wildlife resources and over coastal zone management plans; the Advisory Council on Historic Preservation; the State Historic Preservation Officer; and other appropriate government authorities including any other states affected;
 - (K) U.S. Environmental Protection Agency, Region VI, and any other agency which has issued or is required to issue a RCRA hazardous waste, Underground Injection Control (UIC), Prevention of Significant Deterioration (PSD), National Pollution Discharge Elimination System (NPDES), or Section 404 permit for the same facility; and
 - (L) Others as determined appropriate by the bureau.
- (2) Regional Director of Environmental and Consumer Health Protection. In addition, a copy of the application will be provided to the appropriate regional director of environmental and consumer health protection of the department.
 - (3) Period for Comments. Normally, the entities to whom copies of the application are mailed shall have 30 days to present comments and recommendations on the permit application. If any of the review agencies or the bureau require additional data in order to conduct a proper evaluation, the additional data will be requested by the bureau. Following the time for receipt of comments and recommendations from various review agencies, the designated project engineer and other staff members assigned under the supervision of the bureau chief will perform a detailed technical evaluation and prepare a written summary of the application taking into consideration all comments received from the review agencies. Consideration will be given to any recommendation or action taken by the governing body of a city or county within whose jurisdiction the proposed site is to be located.
 - (4) Draft Permit and Summary Document. The bureau shall prepare a draft permit and a summary document for each completed permit application.

- (A) Draft Permit Denial. If the bureau tentatively decides to recommend the denial of the application for a permit, a notice of intent to deny shall be issued by the bureau. The notice of intent to deny is a type of draft permit and shall follow the same procedures as any permit.
- (B) Draft Permit Contents. The draft permit shall contain the following information:
 - (i) Permit conditions as required in subsection (g) of this section;
 - (ii) All compliance schedules as required in subsection (r) of this section;
 - (iii) All monitoring requirements as required in subsection (g) of this section;
 - (iv) Standards applicable to the applicant's facility as required in subsection (g) of this section; and
 - (v) A statement that the draft permit is based upon the application and the rules which will be considered the best evidence at the hearing and any errors in the draft permit are not fatal. Reliance upon the draft permit without an appearance at the hearing is at one's own risk. The draft permit is not a substitute for the application or the rules.
- (C) Summary Document Contents. A summary document shall be prepared to accompany each draft permit. The document shall summarize the informational basis of both the application and the department's rules and briefly set forth the principal facts and significant factual, legal, methodological, and policy questions considered in preparing the draft permit. The document shall include the following information in clauses (i) - (xiii):
 - (i) The name and address of the owner and operator of the site;
 - (ii) The permit application number;
 - (iii) The date the application was received;
 - (iv) A list of the components of the application and supporting material;
 - (v) The type and quantity of wastes which are proposed to be or are being treated, stored, or

disposed of;

- (vi) Any variances to the rules or compliance schedules the applicant has requested in the application (the applicant is not foreclosed from making additional requests at the public hearing), including reasons why any requested variances or alternatives to required standards do or do not appear justified;
 - (vii) A brief description of the procedures for reaching a final decision;
 - (viii) A brief description of the type of facility or activity to be operated;
 - (ix) The name, address, and telephone number of a person to contact for additional information;
 - (x) Locations where the application is available for inspection;
 - (xi) A citation from the rules on design standards for the type of facility proposed;
 - (xii) A citation from the rules on monitoring standards for the type of facility proposed; and
 - (xiii) A brief summary of the basis for the draft permit conditions, including references to applicable statutory or regulatory provisions and appropriate supporting references.
- (D) EPA Review. The bureau shall submit each draft permit and summary document to the EPA regional administrator for review. EPA shall respond within 30 days. The bureau shall revise the documents in consultation with EPA and, when the revision is complete, shall provide public notice of the availability of the documents within approximately 15 days of the receipt of the comments from EPA.
- (E) Public Notice. A public notice that the draft permit and the summary document are available for inspection and that comments from any person will be accepted shall be issued as set forth in subsection (u) of this section. The notice announcing the public hearing, required in subsection (m)(3) of this section, may be combined with the notice announcing the availability of the draft permit and summary document.

(m) Scheduling and Preparation for a Public Hearing.

- (1) Upon completion of the draft permit and summary document, the department will normally make arrangements with the applicant for a time and place for the conduct of the required public hearing.
- (2) Any interested person may request a public hearing. A request for a public hearing must be made in writing and state the issues proposed to be raised in the hearing.
- (3) The department will provide the applicant with a public hearing notice prepared in compliance with subsection (u) of this section announcing the time, place, and purpose of the public hearing and advising all citizens of their right to present comments for or against the issuance of a permit. The applicant shall be responsible for insuring that such notice of the public hearing is published at least once in a newspaper regularly published or circulated in the county in which the disposal site is located. The applicant shall be responsible for paying for and publishing the hearing notice. The department, at its option in any individual case, may require that publication of the notice be made in additional newspapers in the county or other counties. Publication shall not be less than 45 days before the date of the hearing. The applicant shall provide the department with proof that the publication was timely by submitting within five days after the publication of the notice an affidavit of the publisher which shows the date of publication. The affidavit shall be accompanied by a copy of the published notice.

(n) Conduct of the Public Hearing.

- (1) The public hearing will be conducted by a hearing examiner designated by the commissioner. The bureau will be represented at the hearing by the bureau chief, his designated representative, and/or the designated project engineer assisted by appropriate staff members. Any interested person may be made a party to the hearing.
- (2) The applicant or his duly authorized representative is required to be present at the public hearing to present the application and answer any questions that may arise during the hearing or to clarify any of the information previously submitted. In view of the possibility that legal questions may arise, the applicant should be accompanied by his legal counsel. The professional engineer who prepared the Site Development Plan for the site and other technical personnel who conducted soils or site investigations should also be present at the hearing to answer any technical questions. Failure of an applicant to be present at the public hearing or to be

properly represented could result in the denial of a permit.

(3) All hearings held by the department on hazardous waste permit applications are conducted in accordance with the department's formal hearing procedure rules and the Administrative Procedure and Texas Register Act which requires that evidence submitted be legally admissible (as opposed to hearsay) if such evidence is to be used as a basis for a final decision. Because this statute requires that administrative hearings follow the same rules of evidence as those used in nonjury district court cases, applicants are advised to seek assistance from their legal counsel in preparing for a hearing and, although not required, it is advisable that the applicant's attorney actually participate in the hearing, particularly if there is opposition to the permit application.

(4) The hearing record may be closed by the hearing examiner upon conclusion of the public hearing, or he may keep the record open for a specified period of time to receive specific documents or additional information not available during the hearing.

(o) Final Determination on Application.

(1) Revision to application. If during the public hearing additional engineering or design data are necessary as a result of questions raised or the introduction of conflicting data by witnesses, or if significant modifications or changes are proposed by the applicant regarding site design and/or development and operational concepts, the hearing examiner will entertain a motion for continuance. If the hearing examiner grants a continuance, he shall take the following actions, as appropriate:

(A) The applicant shall be directed to prepare an updated application incorporating the additional engineering or design data and other changes in facility design, construction, and operational concepts proposed or concurred in by the applicant through testimony and/or exhibits offered into evidence at the public hearing.

(B) The updated application shall be identified as an exhibit for the public hearing record in order that its contents may be considered in the commissioner's final decision.

(C) All persons designated as parties at the public hearing shall be afforded the option of receiving a copy of the revised application.

- (D) The public hearing may be reconvened to allow cross-examination of the applicant to clarify, as necessary, the revised portions of the application.
- (2) **Unopposed Cases.** After the record is closed, the bureau will complete the technical evaluation of all data submitted prior to and during the hearing and before the closing of the record, including comments received from the various review agencies and the public. The chief of the bureau will submit a brief containing the bureau's technical evaluation of the permit application, analysis, conclusions, and recommendations to the hearing examiner, providing a copy to the applicant. The hearing examiner reviews the bureau's brief and, if he does not receive any exceptions to the brief from the applicant, forwards the brief to the commissioner together with his findings of fact and conclusions of law. The commissioner reviews the findings of fact, conclusions of law, and recommendations and either approves or denies the permit. Normally, the final decision will be made within 60 days after the closing of the hearing record, but this time may be extended by the hearing examiner at the public hearing when required by circumstances. The applicant will be advised by the department of the commissioner's final decision by letter. If the applicant determines that the bureau's brief contains conclusions and recommendations that are adverse to the applicant and files exceptions with the hearing examiner, the hearing examiner will prepare a proposal for decision and provide copies to the applicant and the chief of the bureau. The ensuing actions and final determination will then be as for an opposed case, as described in paragraph (3) of this subsection.
- (3) **Opposed Cases.** In opposed cases in which the commissioner neither hears the evidence nor reads the complete record, a proposal for decision shall be prepared by the hearing examiner based on the record taking into consideration initial briefs and reply briefs filed by all parties to the action. Prior to the closing of the hearing record, the hearing examiner shall establish a schedule for all ensuing actions through the final determination by the commissioner. All parties shall have an opportunity to file briefs with the hearing examiner, providing copies thereof to all other parties who shall then have an opportunity to file reply briefs with the hearing examiner. The chief of the bureau shall file a brief in all cases (see subsection (p) of this section). The hearing examiner will then prepare a proposal for decision and provide copies to all parties. All parties filing exceptions and briefs to the proposal for decision shall provide copies of such exceptions and briefs to all other parties who shall then have an opportunity to file replies with the hearing examiner.

Following the receipt of replies from all parties or the termination of the specified period of time for receipt of such replies, the office of general counsel shall forward the proposal for decision, together with all briefs, exceptions, and replies received, through the associate commissioner for environmental and consumer health protection to the commissioner. Following his review of the proposal for decision, exceptions, briefs, replies, and staff recommendations, the commissioner shall issue a final decision in the form of a permit, with special provisions attached thereto; a denial order, containing the grounds for such denial; or any other action as may be authorized by state law. Subsequent to this final decision by the commissioner, a motion for rehearing may be filed by any person affected by the decision. This must be filed within 15 days of the commissioner's decision and persons opposing or otherwise responding to the motion for rehearing will be provided an opportunity to file a reply to the motion. The commissioner shall have 45 days from the time of the final decision (i.e. , the issuance of the permit or denial order) to rule on the motions for rehearing, unless such time is extended by the commissioner by written order. Anyone who has filed a motion for rehearing may appeal the commissioner's final decision to a District Court in Travis County within 30 days after a motion for rehearing has been overruled either by written order of the commissioner or by operation of law. Time limitations for the filing of motions, responses, exceptions, and briefs shall be governed by the provisions of the Administrative Procedure and Texas Register Act, Article 6252-13a, V.T.C.S.

(p) Filing of Party Briefs.

- (1) After the completion of the public hearing, but before the proposal for decision is issued, parties shall have 30 days to file briefs with the hearing examiner. Copies shall be provided to all parties. Parties shall have 15 days to file reply briefs with the hearing examiner.
- (2) If the comments received present new evidence or other relevant information that the bureau feels should be considered at the hearing, the bureau, as a party, will present the relevant information or will make a motion to the hearing examiner to reopen the hearing.
- (3) At the time any final permit decision is issued by the commissioner, the bureau shall issue a response to comments received from persons other than parties. This response shall:
 - (A) specify which provisions, if any, of the draft permit have been changed in the final permit

decision, and the reasons for the change;

(B) briefly describe and respond to all significant comments from persons other than parties raised during the public comment period or during any hearing;

(C) be available to the public.

- (q) **Start-up Notification.** After a new hazardous waste management facility obtains a permit, the permittee may not commence treatment, storage, or disposal of hazardous waste; and for a facility being modified, the permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility until:
- (1) The permittee has submitted to the department by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and
 - (2) The department has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit or if within 15 days of the date of submission of the start-up notification letter the permittee has not received notice from the department of its intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of hazardous wastes.
- (r) **Compliance Schedule.** A permit may specify a compliance schedule for a facility or activity. The time between interim requirements may not be more than a year. If it is necessary that the time between an interim requirement be more than a year, the permit shall specify interim dates for the submission of progress reports and include a projected completion report. All reports must be submitted to the bureau within 14 days of the due date.
- (s) **Pre-construction Conference.** Within 15 days of the date of the permit, the owner or operator shall advise the department, in writing, of a recommended date and alternate date for convening a pre-construction conference. The conference will be chaired by a representative of the department and will include appropriate representatives of the permittee and the design engineer. The conference is to ensure a complete understanding of the requirements of the permit, the site design, and these rules.
- (t) **Permits by Rule.** Notwithstanding any other provision of these rules, the following shall be deemed to have a permit if the conditions listed are met:

- (1) Ocean Disposal Barges or Vessels. The owner or operator of a barge or other vessel which accepts hazardous waste for ocean disposal, if the owner or operator has a permit for ocean dumping issued under 40 CFR Part 220; complies with the conditions of that permit; and complies with the following hazardous waste rules:
 - (A) § 325.276 of this title (relating to EPA Identification Number);
 - (B) Subsection (a) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting);
 - (C) Subsection (b) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting);
 - (D) Subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting);
 - (E) Subsection (e)(1) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting); and
 - (F) Subsection (e)(3) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting).
- (2) Publicly Owned Treatment Works (POTW). The owner or operator of a POTW which accepts for treatment hazardous waste, if the owner or operator has an NPDES permit; complies with the conditions of that permit; if the waste meets 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 complies with the following hazardous waste rules:
 - (A) § 325.276 of this title (relating to EPA Identification Number);
 - (B) Subsection (a) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting);
 - (C) Subsection (b) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting);
 - (D) Subsection (c) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting);
 - (E) Subsection (e)(1) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting); and

(F) Subsection (e)(3) of § 325.336 of this title (relating to Manifest System, Record Keeping, and Reporting).

(u) Public Notice and Comments.

(1) Occasions for Public Notice.

- (A) A draft permit and summary document have been prepared in compliance with subsection (1)(4) of this section.
- (B) A permit application has been tentatively denied.
- (C) A public hearing has been scheduled.
- (D) Public notice is not required when a request for permit modification, revocation and reissuance, or termination is denied under subsection (d) of this section. Written notice of that denial shall be given to the requester and to the permittee.
- (E) Public notices may describe more than one permit or permit action.

(2) Time Allowances Provided.

- (A) Public notice of the preparation of a draft permit (including a notice of intent to deny a permit application) and the summary document required under paragraph (1)(A) of this subsection shall allow at least 45 days for public comment.
- (B) Public notice of a public hearing shall be given at least 45 days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.)

(3) Methods Used for Public Notice. Public notice of activities described in paragraph (1) of this subsection shall be given using the methods outlined in subparagraphs (A) - (D) of this paragraph.

- (A) A copy of a notice shall be mailed to the following persons (any person otherwise entitled to receive notice under this paragraph may waive his or her rights to receive notice for any classes and categories of permits):

(i) The applicant;

(ii) Any other agency, including EPA, which has issued or is required to issue a hazardous

waste, Underground Injection Control (UIC), Prevention of Significant Deterioration (PSD), National Pollution Discharge Elimination System (NPDES), or Section 404 permit for the same facility;

- (iii) The agencies identified in subsection (1)(1)(J) of this section;
- (iv) Persons on a mailing list developed by:
 - (I) Including those who request in writing to be on the list;
 - (II) Soliciting persons for "area lists" drawn from participants in past permit proceedings in that area; and
 - (III) Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publications as regional- and state-funded newsletters, environmental bulletins, or state law journals (The bureau may update the mailing list from time to time by requesting written indication of continued interest from those listed. The bureau may delete from the list the name of any person who fails to respond to such a request.);
 - (IV) Including any unit of local government having jurisdiction over the area where the facility is proposed to be located; and
 - (V) Including each state agency having any authority under state law with respect to the construction or operation of such facility.
- (B) A notice shall be published in a daily or weekly major newspaper of general circulation and broadcast over local radio stations.
- (C) Any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.
- (D) Public notices shall be accomplished in a manner constituting legal notice to the public under the Administrative Procedure and Texas Register Act, Article 6252-13a, V.T.C.S.

(4) Contents of a Public Notice.

(A) All public notices. All public notices issued under this section shall contain all the minimum information outlined in clauses (i) - (vi) below.

(i) Name and address of the office processing the permit action for which notice is being given.

(ii) Name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit.

(iii) A brief description of the business conducted at the facility or activity described in the permit application or the draft permit.

(iv) Name, address, and telephone number of a person from whom interested persons may obtain further information and a statement that copies of the documents may be reviewed at the office of the Texas Department of Health, 1100 West 49th Street, Austin, Texas, or at the department's appropriate public health regional office.

(v) A brief description of the comment procedures required by paragraph (6) of this subsection and the Administrative Procedure and Texas Register Act and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final permit decision.

(vi) Any additional information considered necessary or proper.

(B) Public Notices for Hearings. In addition to the general public notice described in subparagraph (A) of this paragraph, the public notice of a hearing shall contain all the information outlined in clauses (i) - (iii) below:

(i) A reference to the date or dates of previous public notices relating to the permit.

(ii) The date, time, and place of the hearing.

(iii) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

(5) Distribution of Document Copies. All persons identified in paragraph (3)(A)(i), (ii), and (iii) of this subsection shall be mailed a copy of the documents identified in subparagraphs (A) - (C) below (unless an identified recipient received a previously officially distributed copy of one or more of the documents):

(A) The permit application;

(B) The draft permit; and

(C) The summary document.

(6) Comments. During the public comment period provided for in this subsection, any person may submit written comments on the draft permit and any interested person may request a public hearing if a hearing has not been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered and shall be answered as provided in subsection (p) of this section.