

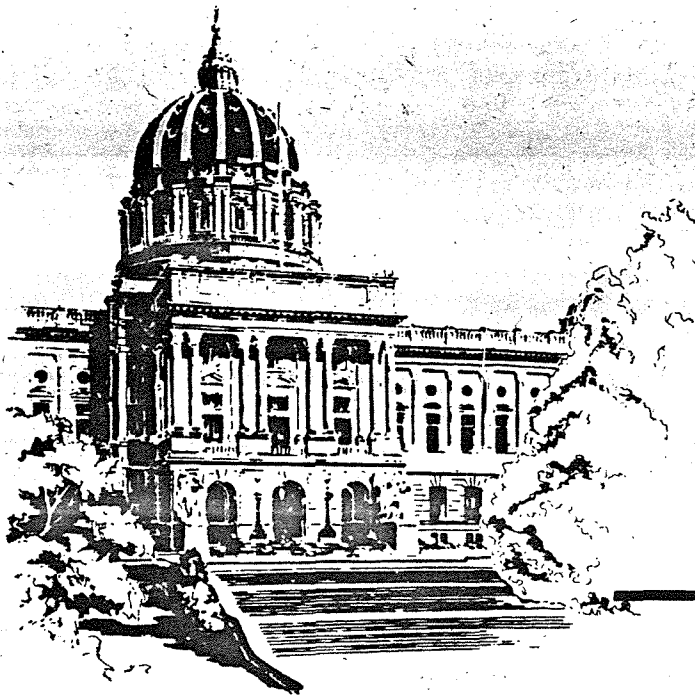
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PENNSYLVANIA BULLETIN

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PART II

This Part Contains the Department of Environmental
Resources' Rules and Regulations Concerning
Solid Waste Management; Hazardous Waste
Management



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Rules and Regulations

Title 25— ENVIRONMENTAL RESOURCES

DEPARTMENT OF ENVIRONMENTAL
RESOURCES

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CH. 75]

Solid Waste Management

November 18, 1980

The Environmental Quality Board, by this order, amends Chapter 75 (relating to solid waste management) by adding Subchapter D, sections 75.260 (relating to definitions and requests for determinations), 75.262 (relating to generators of hazardous waste), 75.263 (relating to transporters of hazardous wastes), 75.264 (relating to standards for new hazardous waste management facilities), 75.265 (relating to interim status for hazardous waste management facilities and permit programs for new and existing hazardous waste management facilities) and 75.267 (relating to notification of hazardous waste activities) as set forth in Annex A hereto.

The amendments are adopted pursuant to the authority contained in the act of July 7, 1980 (P. L. ____, No. 97) (____ P. S. ____), known as the Solid Waste Management Act, and pursuant to section 107 of the act (relating to legislative oversight).

Notice of proposed rule making and Fiscal Note EQB 80-22 were published at 10 Pa.B. 3869 (September 27, 1980). The notice contained a notice of public hearing concerning the proposed regulations which was duly held on October 14, 1980 at the place and time designated in the notice. Fourteen persons testified at the public hearing and 32 sets of written comments were submitted by a variety of individuals and of organizations.

The Department has prepared a document titled "Summary of Comments and Departmental Responses on the Proposed Hazardous Waste Management Regulations" which contains a summary of the testimony and the comments received and the Department's response thereto. This document has been forwarded to all persons who registered for the hearing, and to all persons who submitted comments to the Board.

As a consequence of the testimony at the hearing and the comments received, the Department has made nu-

merous revisions to the proposals as published at 10 Pa.B. 3869. The revisions have been made to clarify certain provisions or to add to the level of detail required or to insure that hazardous waste activities are reported in a timely fashion and that the records of such activities are retained for a reasonable period of time. The revisions do not enlarge the purpose of the proposals, as published at 10 Pa.B. 3869, and, accordingly, further notice of proposed rule making is not required. The revisions have been incorporated into the text of the regulations as set forth in Annex A hereto.

The Environmental Quality Board finds:

(1) The public notice of intention to adopt the regulations adopted by this order has been duly given pursuant to §§ 201 and 202 of the CDL (45 P. S. §§ 1201 and 1202) and the regulations thereunder, 1 Pa. Code §§ 7.1 and 7.2.

(2) That the adoption of the regulations of the Department of Environmental Resources, in the manner provided in this order, is necessary and appropriate for the administration and enforcement of the authorizing statutes.

The Environmental Quality Board, acting pursuant to the authorizing statutes, orders:

(A) That the regulations of the Department of Environmental Resources, 25 Pa. Code Chapter 75, are amended by adding Subchapter D., §§ 75.260, 75.262 — .265 and 75.267 as set forth in Annex A hereto.

(B) The Chairman of the Environmental Quality Board shall submit this order and Annex A hereto to the Department of Justice for approval as to legality as required by law.

(C) The Chairman of the Environmental Quality Board shall duly certify this order and Annex A hereto and deposit the same with the Legislative Reference Bureau as required by law.

(D) This order shall take effect November 18, 1980, except for sections 75.262(e), 75.263(d), 75.264(j) and 75.265(j), all of which relate to the manifest system; these four subsections shall become effective upon publication in the *Pennsylvania Bulletin*. The deferral of the effective date of these four subsections is necessary to allow for the distribution of the manifest documents.

By the Environmental Quality Board

CLIFFORD L. JONES

Chairman

Annex A

TITLE 25. ENVIRONMENTAL RESOURCES

PART I. DEPARTMENT OF ENVIRONMENTAL RESOURCES

Subpart C. PROTECTION OF NATURAL RESOURCES

ARTICLE I. LAND RESOURCES

CHAPTER 75. SOLID WASTE MANAGEMENT

§ 75.260. Definitions and requests for determinations.

(a) *Definitions.* The following words, phrases and abbreviations when used in this subchapter shall have the meanings given to them in this subsection, unless the context clearly indicates otherwise:

Abatement — The restoration, reclamation, recovery, and the like of a natural resource adversely affected by the activity of a person, permittee or municipality.

Act — The Solid Waste Management Act (35 P. S. §§ 6018.101 — 6018.1003).

Active portion — A portion of a facility where hazardous waste treatment, storage, or disposal operations are being conducted subsequent to November 19, 1980, and are not yet a closed portion.

Agricultural waste — Poultry and livestock manure, or residual materials in liquid or solid form generated in the production and marketing of poultry, livestock, fur bearing animals, and their products, provided that such agricultural waste is not hazardous. The term includes the residual materials generated in producing, harvesting, and marketing of all agronomic, horticultural, and silvicultural crops or commodities grown on what are usually recognized and accepted as farms, forests, or other agricultural lands.

Aquifer — A geologic formation, group of formations, or part of a formation capable of yielding ground water to wells or springs.

ASTM — American Society for Testing and Materials.

Authorized representative — The individual responsible for the overall operation of a facility or an operational unit of the facility, or his assistant.

Captive facilities — Facilities which are located upon lands owned by a gen-

erator of hazardous waste and which are operated to provide for the treatment or disposal solely of such generator's hazardous waste.

Cell — A landfill cell.

C.F.R. — Code of Federal Regulations.

Closed portion — Any portion of a facility where hazardous waste treatment, storage, or disposal operations have been conducted, but which have been closed in accordance with the approved facility closure plan and all applicable closure requirements of this chapter.

Commercial establishment — Any establishment engaged in nonmanufacturing or nonprocessing business, including, but not limited to, stores, markets, office buildings, restaurants, shopping centers and theaters.

Confined aquifer — An aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined ground water.

Constituent — A chemical component of a waste or chemical compound which qualifies a waste as hazardous under § 75.261 of this title (relating to criteria, identification and listing of hazardous waste), or which is listed as a hazardous waste or hazardous compound in § 75.261 of this title (relating to criteria, identification, and listing of hazardous waste).

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

Contingency plan — A document setting forth an organized, planned, and coordinated course of action to be followed in order to prevent pollution incidents and limit potential pollution in case of a fire, explosion, or discharge of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

Designated facility — A hazardous waste treatment, storage, or disposal facility which has a permit from the Department, or if located outside the Commonwealth, which is authorized to accept hazardous waste by a state or Federal government and which is designated on a manifest by the generator as the destination for a quantity of hazardous waste.

Dike — An embankment of natural or man-made materials constructed to contain or obstruct the movement of liquid, sludge, or other substances.

Discharge — An intentional or accidental spilling, leaking, pumping,

pouring, dumping, emitting, or any other release of hazardous waste or hazardous waste constituents into or onto land or water.

Disposal — The incineration, deposition, injection, dumping, spilling, leaking, or placing of solid waste into or on the land or water in a manner that the solid waste or a constituent of the solid waste enters the environment, is emitted into the air or is discharged to the waters of this Commonwealth.

Disposal facility — A facility or part of a facility, at which hazardous waste is placed into or on any land or water and at which waste will remain after closure.

EPA — The United States Environmental Protection Agency.

Equivalent method — A testing or analytical method determined by the Department to be equivalent to methods specified in this chapter.

Existing hazardous waste management facility — Any storage facility, any treatment facility, or any permitted disposal facility which was in operation on November 19, 1980, or for which construction was begun on or before November 19, 1980. Construction shall be deemed to have begun if the owner or operator has obtained all permits and preconstruction approvals required by the act and either:

(i) on-going physical, on-site construction was underway; or

(ii) the owner or operator has entered into contractual obligations for construction which cannot be canceled or modified without substantial loss.

Facility — All land, structures, and other appurtenances or improvements on a property where hazardous waste is treated, stored, or disposed.

Facility personnel — Personnel.

Food-chain crops — Crops grown for human consumption, including tobacco, and pasture and crops grown for feed for animals whose products or by-products are or will be used for human consumption.

Food processing waste — Residual materials in liquid or solid form generated in the slaughtering of poultry and livestock, or in processing and converting fish, seafood, milk, meat, and eggs to food products; the term also means residual materials generated in the processing, converting, or manufacturing of fruits, vegetables, crops and other commodities into marketable food items.

Food processing wastes used for agricultural purposes — The use of

food processing wastes in normal farming operations as defined in this section.

Freeboard — The vertical distance between the top of a tank sidewall or lowest elevation of a surface impoundment dike or berm, and the elevation of the highest surface of the waste contained in the tank or impoundment.

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

FWPCA — The Federal Water Pollution Control Act (33 U.S.C. §§ 1251 — 1376).

Generator — A person who produces or creates hazardous waste identified or listed under § 75.261 of this title (relating to criteria, identification, and listing of hazardous waste). If the generator generates hazardous waste at more than one site, he shall be deemed a separate generator in each case.

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

Ground water plume — A body of contaminated ground water originating from a specific source and influenced by such factors as the local ground water flow pattern, density and concentration of contaminant, and character of the aquifer.

Hazardous waste — Any garbage, refuse, sludge from an industrial or other waste water treatment plant, sludge from a water supply treatment plant, or air pollution control facility and other discarded material including solid, liquid, semisolid or contained gaseous material resulting from municipal, commercial, industrial, institutional, mining, or agricultural operations, and from community activities, or any combination of these factors, which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may:

(i) cause or significantly contribute to an increase in mortality or morbidity in either an individual or the total population; or

(ii) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

The term hazardous waste shall not include coal refuse as defined in the Coal Refuse Disposal Control Act (52 U.S.C. §§ 30.51 — 30.62). The term hazardous waste shall not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on pursuant to and in compliance with a valid permit

issued under the Clean Streams Law (35 P. S. §§ 691.1 — 691.1001). The term hazardous waste shall not include solid or dissolved material in domestic sewage, or solid dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under § 402 of the Federal Water Pollution Control Act (33 U.S.C. § 1342) or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. §§ 2011 — 2394).

Hazardous waste constituent — A constituent.

Hazardous waste discharge — A discharge.

Hazardous waste management facility — A facility where storage, treatment, or disposal or hazardous waste occurs.

Hazardous waste number — The number assigned by the Department to each hazardous waste listed and to each hazardous waste characteristic identified in § 75.261 of this title (relating to criteria, identification and listing of hazardous waste).

HWM — Hazardous waste management.

Identification number — The number assigned by the Department to each generator, transporter, and treatment, storage, or disposal facility handling hazardous waste.

Impoundment — Surface impoundment.

Inactive portion — A portion of a hazardous waste management facility which is not operated after November 19, 1980, but which is not yet a closed portion.

Incinerator — An enclosed device using controlled flame combustion, the primary purpose of which is to thermally break down hazardous waste. Examples of incinerators are rotary kiln, fluidized bed, and liquid injection incinerators.

Incompatible waste — A hazardous waste which is unsuitable for:

(i) placement in a particular device or facility because it may cause corrosion or decay of containment materials such as container inner liners or tank walls; or

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

Individual generation site — The

contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

Industrial establishment — An establishment engaged in manufacturing or processing, including but not limited to, factories, foundries, mills, processing plants, refineries, mines and slaughterhouses.

Injection well — A well into which fluids are injected.

Inner liner — A continuous layer or lining of material placed inside a tank or other container which protects the construction materials of the tank or container from the contents.

In operation — Active functioning of a hazardous waste management facility.

Institutional establishment — An establishment engaged in service, including, but not limited to, hospitals, nursing homes, orphanages, schools and universities.

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. Examples of landfill cells are trenches and pits.

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

LC-50 — Lethal Concentration Fifty. The calculated concentration of a substance in air, exposure to which for a specified length of time is expected to cause the death of 50% of an entire defined experimental animal population. The mode of exposure to the toxic, such as inhalation, and the test species, such as rat or mouse, usually accompany LC-50 values.

LD-50 — Lethal Dose Fifty. The calculated dose of a substance which is expected to cause the death of 50% of an entire defined experimental animal population. The mode of exposure to the toxic, such as oral or dermal, and the test species, such as rat or rabbit, usually accompany LD-50 values.

Leachate — A liquid, including suspended or dissolved components in the liquid, that has permeated through or drained from hazardous waste.

Liner — A continuous layer of natural or synthetic materials beneath or on the sides of a storage or treatment device, surface impoundment, landfill or landfill cell, which severely restricts or prevents the downward or lateral escape of hazardous waste, hazardous waste constituents, or leachate.

Liner compatibility — Absence of destructive or deleterious effect on the structure, integrity, and effectiveness of a liner as a result of physical or chemical exposure to hazardous waste or hazardous waste constituents.

Management — The entire process, or any part thereof, of storage, collection, transportation, treatment, and disposal of solid wastes by any person or municipality engaging in such process. "Hazardous waste management" refers to management of hazardous waste.

Manifest — A shipping document originated and signed by the generator, which provides information required by § 75.262 of this title (relating to generators of hazardous waste).

Manifest document number — The number assigned by the generator to a manifest for recordkeeping and reporting purposes.

Manifest system — A written record identifying the quantity, composition, origin, routing, and destination of hazardous waste from the point of generation to the point of disposal, treatment or storage.

Mine — A deep or surface mine, whether active, inactive, or abandoned.

Mining — The process of the extraction of minerals from the earth or from waste or stockpiles or from pits or banks.

Mining overburden returned to the mine site — Material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine.

Municipality — A city, borough, incorporated town, township, or county or any authority created by any of the foregoing.

Municipal waste — Garbage, refuse, industrial lunchroom or office waste, and other material including solid, liquid, semisolid, or contained gaseous material resulting from operation of

residential, municipal, commercial, or institutional establishments and from community activities, and any sludge not meeting the definition of residual or hazardous waste hereunder from a municipal, commercial or institutional water supply treatment plant, waste water treatment plant, or air pollution control facility.

New facility — A new hazardous waste management facility.

New hazardous waste management facility — A facility for which construction began after November 19, 1980.

Normal farming operations — The customary and generally accepted activities, practices and procedures that farms adopt, use, or engage in year after year in the production and preparation for market of poultry, livestock, and their products; and in the production, harvesting and preparation for market of agricultural, agronomic, horticultural, silvicultural, and aquicultural crops and commodities; provided that such operations are conducted in compliance with applicable laws, and provided that the use or disposal of these materials will not pollute the air, water, or other natural resources of this Commonwealth. The term includes the storage and utilizing of agricultural and food process wastes for animal feed, and includes the agricultural utilization of septic tank cleanings and sewage sludges which are generated off-site. The term includes the management, collection, storage, transportation, use or disposal of manure, other agricultural waste and food processing waste on land where such materials will improve the condition of the soil, the growth of crops, or in the restoration of the land for the same purposes.

NPDES — National Pollutant Discharge Elimination System.

Off-site — Any property which is not defined as on-site.

On-site — The same or geographical contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right-of-way. Noncontiguous properties owned by the same person or municipality but connected by a right-of-way which he controls and to which the public does not have access, is also considered on-site property. Any facility that does not meet the requirements of this definition is an off-site facility.

Open burning — The combustion of

material without the following characteristics:

(i) Control of combustion air to maintain adequate temperature for efficient combustion.

(ii) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion.

(iii) Control of emission of the gaseous combustion products.

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

Owner — The person or municipality who is the owner of record of a facility or part of a facility.

Partial closure — The closure of a discrete portion of a facility or its activities in accordance with provisions of §§ 75.264 and § 75.265 of this title (relating to new hazardous waste management facilities and interim status standards and permit program). For example, partial closure may include closure of a trench, landfill cell, or unit operation, while other parts of the same facility remain in operation or to be placed in operation.

Person — An individual, partnership, corporation, association, institution, cooperative enterprise, municipal authority, Federal Government or agency, State institution and agency — including, but not limited to, the Department of General Services and the State Public School Buildings Authority — or any other legal entity which is recognized by law as the subject of rights and duties. In a provision of the act prescribing a fine, imprisonment or penalty, or any combination of the foregoing, the term person shall include the officers and directors of a corporation or other legal entity having officers and directors.

Personnel — The staff of employees and others who oversee operation of, or work at, a hazardous waste management facility.

Pile — A noncontainerized accumulation of solid, nonflowing hazardous waste.

Point source — A discernible, confined, and discrete conveyance, including, but not limited to a pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

Point sources subject to permits under § 402 of the Federal Water Pollution Control Act — Point source dis-

charges for which valid and current permits have been issued under § 402 of the Federal Water Pollution Control Act (33 U.S.C. § 1342), to the extent that such discharges are authorized by the permits.

Pollution — Contamination of air, water, land or other natural resources of this Commonwealth such as will create or are likely to create a public nuisance or to render such air, water, land or other natural resources harmful, detrimental or injurious to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other life.

Processing — Technology used for the purpose of reducing the volume or bulk of municipal or residual waste or to convert part or all of such waste materials for off-site reuse. Processing facilities include but are not limited to transfer facilities, composting facilities, and resource recovery facilities.

Professional Engineer — A registered professional engineer.

Publicly-owned treatment works (POTW) — A device or system used in the treatment, including recycling and reclamation, of municipal sewage or industrial wastes of a liquid nature which is owned by a State or municipality as defined by section 502(4) of the Clean Water Act (33 U.S.C. § 1362). This definition includes sewers, pipes, or other conveyance only if they convey wastewater to a POTW providing treatment.

RCRA — Resource Conservation and Recovery Act of 1976 (42 U.S.C. §§ 6901 — 6986).

Registered professional engineer — An engineer registered to practice engineering in this Commonwealth.

Reportable quantity — The minimum quantity — or greater — of hazardous waste generated as a result of a discharge or spill, which must be reported to the Department.

Representative sample — A sample of a universe or whole, such as a waste pile, lagoon, or ground water, which can be expected to exhibit the average properties of the universe or whole.

Residual waste — Garbage, refuse, other discarded material or other waste including solid, liquid, semi-solid, or contained gaseous materials resulting from industrial, mining, and agricultural operations and sludge from an industrial, mining or agricultural water supply treatment facility, waste water treatment facility or air pollution control facility, provided

that it is not hazardous. The term shall not include coal refuse as defined in the Coal Refuse Disposal Control Act (52 P. S. § 30.53). The term shall not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under a valid permit issued pursuant to The Clean Streams Law (35 P. S. §§ 691.1 — 691.901).

Responsible official — For corporations, corporate officer; for limited partnerships, general partner; for all other partnerships, partner; for a sole proprietorship, the proprietor; for a municipal, state or federal authority or agency, an executive officer or ranking elected official responsible for compliance of the authority's or agency's hazardous waste activities and facilities with all applicable rules and regulations.

Run-off — Rainwater, leachate, or other liquid that drains overland from part of a facility.

Run-on — Rainwater, leachate, or other liquid that drains overland onto part of a facility.

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

SIC number — A number assigned to a corresponding type of industry, manufacture, or product under the Standard Industrial Code prepared by the U. S. Office of Management and Budget.

Sludge — Solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a waste water treatment plant.

Solid waste — Waste, including but not limited to, municipal, residual, or hazardous wastes, including solid, liquid, semisolid, or contained gaseous materials.

Spill — A discharge.

Statistically significant — Significant as determined by the Student's t-test — a statistical method — referred to in Appendix III of § 75.265 of this title (relating to interim status standards and permit program).

Storage — The containment of waste on a temporary basis in such a manner as not to constitute disposal of such waste. It shall be presumed that the containment of waste in excess of one year constitutes disposal. This presumption can be overcome by clear and convincing evidence to the contrary.

Surface impoundment — A facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials — although it may be lined with synthetic materials — which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

Tank — A stationary device designed to contain an accumulation of hazardous waste and constructed primarily or entirely of non-earthen materials — such as, concrete, steel, plastic — which provide structural support and containment.

Thermal treatment — The treatment of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge.

Totally enclosed treatment facility — A facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

Transportation — The off-site removal of solid waste at any time after generation.

Transporter — A person or municipality engaged in the off-site transportation of hazardous waste by air, rail, highway, or water.

Treatment — A method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any waste so as to neutralize such waste or so as to render such waste non-hazardous, safer for transport, suitable for recovery, suitable for storage, or reduced in volume. The term includes activity or processing designed to change the physical form or chemical composition of waste so as to render it neutral or nonhazardous.

TSD — Abbreviation for treatment, storage, or disposal of hazardous waste.

Underground injection — The subsurface emplacement of fluids

through a bored, drilled or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension.

U. N. Number — A specific number assigned to a corresponding individual chemical compound under a numbering system adopted for worldwide use by the United Nations Committee of Experts on the Transport of Dangerous Goods. "U. N. Number" shall include North American (N. A.) Numbers.

Unsaturated zone — The zone between the land surface and the upper boundary of the zone of saturation. This upper boundary of the zone of saturation is often called the water table.

Water (bulk shipment) — The bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

Well — A driven, drilled, bored, or dug excavation, however inclined from the vertical, with a depth greater than the largest surface dimension, generally of a cylindrical form, and often walled by some means to prevent the excavation from caving in.

Well injection — An underground injection.

Zone of aeration — An unsaturated zone.

Zone of saturation — A saturated zone.

(b) Written requests to determine if a waste generated at a particular facility does not exhibit the properties nor contain the substances which were the bases for listing that waste as a hazardous waste in § 75.261 of this title (relating to criteria identification and listing of hazardous wastes) shall consist of the following:

(1) A person or municipality may make a request in writing to the Department for a determination of non-applicability. The request shall be accompanied by demonstrated proof that the waste generated at that facility does not meet any of the criteria under which the waste was listed as a hazardous waste under § 75.261(f)(2)(i) of this title (relating to criteria, identification and listing of hazardous waste), and that it also does not meet the criterion in § 75.261(f)(2)(ii) of this title (relating to criteria, identification and listing of hazardous waste). It also shall not meet any of the characteristics of hazardous waste under § 75.261(g) of this title (relating to criteria, identification and listing of hazardous waste). All demonstrations performed under this subsection shall be

completed using representative samples of the waste.

(2) The procedures in this subsection may also be used to request the Department for a determination of nonapplicability of § 75.261(b)(1)(ii) or § 75.261(b)(3) of this title (relating to criteria, identification and listing of hazardous waste) to a waste listed in § 75.261(h) of this title (relating to criteria, identification and listing of hazardous waste), containing a waste listed in § 75.261(h) of this title (relating to criteria, identification and listing of hazardous waste), or derived from a waste listed in § 75.261(h) of this title (relating to criteria, identification and listing of hazardous waste). This determination shall only apply to a particular generating, storage, treatment, or disposal facility. The request shall be accompanied by demonstrated proof that the subject waste generated at the facility does not meet any of the criteria under § 75.261(g) of this title (relating to criteria, identification and listing of hazardous waste). However, if the waste is a mixture of solid waste and one or more hazardous wastes listed under § 75.261(h) of this title (relating to criteria, identification and listing of hazardous waste), or is derived from one or more hazardous wastes, the demonstration may be performed specific to each constituent listed waste, or to the waste mixture as a whole.

(3) If the waste is listed with hazard codes I, C, E, or R in § 75.261(h)(2) and (3) of this title (relating to criteria, identification and listing of hazardous waste), the request shall include verification that demonstration samples of the waste do not exhibit any of the characteristics of hazardous waste described in § 75.261(g) of this title (relating to criteria, identification and listing of hazardous waste).

(4) If the waste is listed with hazard code I in § 75.261(h)(2) and (3) and (4)(vi) of this title (relating to criteria, identification and listing of hazardous waste), the request shall include demonstrated proof that:

(i) demonstration samples of the waste do not contain the constituents shown in Appendix VII of § 75.261 of this title (relating to criteria, identification and listing of hazardous waste) which cause the waste to be listed, using the test methods prescribed in Appendix III of § 75.261 of this title (relating to criteria, identification and listing of hazardous waste); or

(ii) the waste does not meet the criterion of § 75.261(f)(2)(ii) of this title (relating to criteria, identification and

listing of hazardous waste) when considering the factors in § 75.261(f)(2)(ii)(A) — (K) of this title (relating to criteria, identification and listing of hazardous waste).

(5) If the waste is listed with the hazard code H in § 75.261(h)(4)(v), the request shall include demonstrated proof that the waste does not meet either:

(i) the criterion in § 75.261(f)(2)(i) of this title (relating to criteria, identification and listing of hazardous waste); or

(ii) the criterion in § 75.261(f)(2)(ii) of this title (relating to criteria, identification and listing of hazardous waste) when considering the factors listed in § 75.261(f)(2)(ii)(A) — (K) of this title (relating to criteria, identification and listing of hazardous waste).

(6) Demonstration samples shall consist of sufficient, but in no case less than four, representative samples taken over a period capable of representing the variability or uniformity of the waste.

(7) Each request shall be submitted to the Department by certified mail and shall include the following:

(i) The requestor's name and address.

(ii) A statement of the requestor's interest in the proposed determination.

(iii) A description of the proposed determination.

(iv) A statement of the need and justification for the proposed determination, including any supporting tests, studies, or other information.

(8) Each request shall also include the following:

(i) The name and address of the laboratory facility performing the sampling or tests of the waste.

(ii) The name and qualifications of the individuals sampling or testing the waste.

(iii) The dates of sampling and testing.

(iv) The name and location of the generating facility.

(v) A description of the materials, manufacturing process, or other operations producing the waste, and an assessment of whether such processes, operations, or raw materials could or would produce a waste that is not considered by the demonstration.

(vi) A description of the waste and an estimate of the average and maximum monthly and annual quantities of waste covered by the demonstration.

(vii) Pertinent data on and discussion of the factors delineated in the respective criteria for listing a hazardous waste, where the requestor's demonstration is based on the factors in § 75.261(f)(2)(ii) of this title (relating to criteria, identification and listing of hazardous waste).

(viii) A description of the methods and equipment used to obtain the representative samples.

(ix) A description of the sample preparation and handling techniques employed in the demonstration, including techniques used for extraction, containerization, and preservation of samples.

(x) A description of the tests performed, including test results.

(xi) The names and model numbers of the instruments used in performing the tests.

(xii) The following statement signed by the generator of the waste or his authorized representative:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information to be true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(9) After receiving a request for determination, the Department may request any additional information which it deems necessary to evaluate the request.

(10) A determination shall apply only to the waste generated at the requestor's individual facility covered by the demonstration, and shall not apply to any waste from any other facility.

(11) The Department may make a determination of nonapplicability for only part of the waste for which the demonstration is submitted when variability of the waste justifies such a determination.

§ 75.262. Generators of hazardous waste.

(a) Scope.

(1) This section establishes standards for a generator of hazardous

waste identified in § 75.261 of this title (relating to criteria, identification, and listing of hazardous wastes) who is located within this Commonwealth. Any other generator whose hazardous waste is designated for treatment, storage or disposal within the Commonwealth shall be subject to all the requirements of this section except subsections (g), (l), (m), and (n) of this section. Small quantity generators identified in § 75.261(d) of this title (relating to criteria, identification and listing of hazardous waste) are subject only to the requirements of subsection (b) of this section.

(2) A generator who treats, stores or disposes of hazardous waste at a permitted on-site facility or an on-site facility being treated as having been issued a permit shall comply with applicable requirements of sections 75.264 and 75.265 of this title (relating to new hazardous waste management facilities and interim status for hazardous waste management facilities and permit program for new and existing hazardous waste management facilities) and with the following in this section:

(i) Subsection (b) of this section (relating to hazardous waste determination).

(ii) Subsection (c) of this section (relating to identification numbers).

(iii) Subsection (g) of this section (relating to accumulation).

(iv) Subsection (h) of this section (relating to recordkeeping).

(v) Subsection (i)(2) of this section (relating to quarterly reporting).

(vi) Subsection (k) of this section (relating to additional reporting).

(vii) Subsection (l) of this section (relating to hazardous waste disposal plan).

(viii) Subsection (m) of this section (relating to hazardous waste discharges or spills).

(3) A farmer who generates waste pesticides which are hazardous wastes and who complies with all of the requirements of subsection (n) of this section is not required to comply with §§ 75.264 or 75.265 of this title (relating to new hazardous waste management facilities and interim status standards and permit program for new and existing hazardous waste management facilities) with respect to such pesticides.

(b) *Hazardous waste determination.*

(1) A person or municipality who generates a solid waste as defined in Article I of this act (35 P. S. §§ 6018.101 — 6018.108) shall deter-

mine if that waste is a hazardous waste using the following procedure:

(i) He shall first determine if the waste is excluded from regulation under § 75.261(c) and (d) of this title (relating to criteria, identification and listing of hazardous waste).

(ii) He shall then determine if the waste is listed as a hazardous waste in § 75.261(h) (relating to criteria, identification and listing of hazardous waste) of this title.

(iii) If the waste is not listed, he shall determine whether the waste is identified in § 75.261(g) of this title, (relating to criteria, identification and listing of hazardous waste) by either:

(A) testing the waste according to the methods set forth in § 75.261 of this title (relating to criteria, identification and listing of hazardous waste) or according to an equivalent method approved by the Department; or

(B) applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(iv) He shall determine if any spill or accidental discharge is subject to the reporting requirements of subsection (m) of this section and shall comply with the requirements of subsection (m) of this section except subsection (m)(5) of this section for any such spill or accidental discharge.

(2) If a waste is listed as a hazardous waste in § 75.261(h) of this title, a generator's waste can be declared non-hazardous if he can demonstrate to the Department in accordance with § 75.260(b) of this title that the waste from his particular facility or operation is not a hazardous waste.

(3) If the waste is determined to be nonhazardous or is excluded under § 75.261(d) of this title (relating to criteria, identification and listing of hazardous waste) generators shall retain copies of the evaluations performed and shall nevertheless repeat the necessary evaluations or testing when there is a significant change in their raw materials or operations which may alter the test results. Copies of such evaluations shall be retained for five years and furnished to the Department upon request.

(4) Generators of hazardous waste excluded under § 75.261(d) of this title (relating to criteria, identification and listing of hazardous waste) shall nonetheless retain for a period of five years records of quantities, descriptions, and dispositions of such wastes, and shall furnish such records to the Department upon request.

(5) A determination that a waste is not hazardous under subsection (b)(1)(iii) and (2) of this section does not preclude the Department, using the characteristics and testing methods set forth in § 75.261 of this title (relating to criteria, identification and listing of hazardous waste) from determining the waste to be hazardous.

(c) *Identification numbers.*

(1) A generator shall not treat, store, dispose of, transport or offer for transport a shipment of hazardous waste without having received an identification number from the Department.

(2) A generator who has not received an identification number may obtain one by applying to the Department using the notification form. Upon receiving the request, the Department shall assign an identification number to the generator.

(3) An identification number received as a result of notification to EPA pursuant to section 3010 of the Resource Conservation and Recovery Act (42 U.S.C. § 6930) shall be deemed to satisfy the requirements of this section when furnished to the Department upon request.

(4) A generator shall offer a shipment of hazardous waste only to a licensed transporter or hazardous waste management facility that has received an identification number.

(d) *Authorization.*

(1) A generator, before designating a hazardous waste shipment for off-site treatment, storage, or disposal within the Commonwealth, shall contact the hazardous waste management facility and obtain a copy of a written authorization from the hazardous waste management facility.

(2) Such an authorization shall indicate that the facility is permitted to accept such waste, is capable, has capacity and is willing to accept the waste.

(3) Only one such authorization shall be necessary for each waste stream.

(e) *Manifest.*

(1) General requirements for a manifest shall consist of the following:

(i) A generator who transports or offers for transportation a shipment of hazardous waste to an off-site treatment, storage or disposal facility shall complete a manifest before the waste is transported off-site.

(ii) For all hazardous waste shipments designated for off-site treatment, storage, or disposal within this

Commonwealth, the generator shall use the manifest forms provided by the Department and shall distribute the manifest forms according to the instructions specified on the manifest.

(iii) For all hazardous waste shipments generated in this Commonwealth and designated for treatment, storage or disposal outside this Commonwealth, the generator shall use the EPA authorized disposer state manifest form or format, or a manifest form meeting the minimum EPA requirements.

(iv) A generator shall designate on the manifest one facility which is permitted to manage the waste described on the manifest.

(v) The Department manifest shall require the following information as a minimum:

(A) A unique manifest document number.

(B) The names, site addresses, telephone numbers and identification numbers of the generator, transporters and treatment, storage or disposal facility.

(C) The proper United States Department of Transportation shipping name, United States Department of Transportation hazard class, and U. N. number of the waste as outlined in the United States Department of Transportation 49 C.F.R. §§ 172.101, 172.202 and 172.203.

(D) The physical form (solid, liquid or gas), the total quantity of each hazardous waste by units of weight or volume, and the type and number of containers.

(E) A certification equivalent to the following: "This is to certify that the above named materials are properly classified, described, packaged, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, United States EPA, and the State. The wastes described were consigned to the transporter named. The treatment, storage or disposal (TSD) facility can and will accept the shipment, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge."

(2) The hazardous waste manifest shall consist of six copies, with copies 1, 2 and 3 detaching into two parts, A and B. The manifest form shall be completed and routed as follows, except that manifests for bulk shipments transported by rail or water shall be completed and routed according to

scheme set forth in subsection (e)(7) of this section.

(i) The generator shall complete Part A of all copies of the manifest. The generator shall instruct the initial transporter's authorized representative to sign, date, and certify the receipt of the shipment.

(ii) For shipments of hazardous waste generated within the Commonwealth of Pennsylvania and to be disposed of within the Commonwealth, the generator shall retain a complete Copy 2 of the manifest and Part A of Copy 3 for his records.

(iii) In the case of an interstate shipment of hazardous waste, the generator shall detach Part A of Copies 1, 2 and 3, distribute Part A, Copy 1 to the disposer state, Part A, Copy 2 to the generator state, and retain Part A, Copy 3 for his records.

(iv) The transporters' authorized representatives shall carry the remaining copies of the manifest along with the shipment.

(v) Upon delivery of the shipment to the designated treatment, storage or disposal facility, or to transporter number two, transporter number one shall sign and date and certify delivery of the shipment, obtain the signature, date of receipt of shipment, and certification of the treatment, storage or disposal facility's authorized representative or the authorized representative of transporter number two and detach and retain Copy 5 of the manifest.

(vi) Upon delivery of the shipment to the designated treatment, storage or disposal facility by transporter number two, transporter number two shall sign and date and certify the delivery of shipment, obtain the signature, date of receipt of shipment, and certification of the treatment, storage or disposal facility's authorized representative and detach and retain Copy 6 of the manifest.

(vii) For shipments within the Commonwealth of Pennsylvania, the treatment, storage, or disposal facility's authorized representative shall retain complete Copies 1 and 4 of the manifest and return Part B of Copy 3 to the generator.

(viii) In the case of the interstate shipment of hazardous waste, the treatment, storage, or disposal facility's authorized representative shall detach and distribute Part B of Copies 1, 2, and 3 of the manifest in the following manner:

(A) Treatment, storage or disposal facility's authorized representative

shall forward Part B of Copy 1 of the manifest to the state in which the designated treatment, storage, or disposal facility is located.

(B) Treatment, storage, or disposal facility's authorized representative shall forward Part B of Copy 2 of the manifest to the state in which the installation generating the hazardous waste is located and shall return Part B of Copy 3 of the manifest to the generator within 24 hours after the delivery of the shipment. The treatment, storage or disposal facility shall retain Copy 4 for its records.

(3) Each manifest form shall record a maximum of two transporters. If more than two transporters are to be utilized, the generator shall complete additional manifest forms and reference the first manifest document number on such additional manifest forms.

(4) If more than four hazardous wastes from the same generator are to be shipped in the same shipment, the generator shall complete additional manifests for each group of four or less hazardous wastes.

(5) Copies of the manifest retained by the generator and the treatment, storage or disposal facility shall be furnished to the Department upon request.

(6) If the transporter is unable to deliver the hazardous waste to the designated facility, the generator shall prepare a new manifest designating another facility which is permitted to handle the waste described in the manifest or instruct the transporter to return the waste.

(7) For bulk shipment of hazardous waste designated for treatment, storage or disposal within this Commonwealth solely by railroad or water, the manifest shall be completed and routed as follows:

(i) The generator shall complete Part A of all copies of the manifest. The generator shall instruct the initial transporter's authorized representative to sign and date and certify the receipt of the shipment.

(ii) For shipments of hazardous waste generated within the Commonwealth of Pennsylvania and to be disposed of within the Commonwealth of Pennsylvania, the generator shall retain a complete Copy 2 of the manifest and Part A of Copy 3 for his records.

(iii) In the case of an interstate shipment of hazardous waste, the generator shall detach Part A of copies 1, 2 and 3, distribute Part A of Copy 1 to the disposer state, Part A of Copy 2 to

the generator state, and retain Part A of Copy 3.

(iv) The generator or the initial transporter delivering a shipment of hazardous waste to the rail or water transporter shall obtain the signature and date and certification of the rail or water transporter on the manifest and forward the remaining copies of the manifest, except those for additional transporters, to the designated treatment, storage or disposal facility. Each transporter other than the rail or water transporter shall retain his copy of the manifest for his records.

(v) The rail or water transporter shall carry either his copy of the manifest or the shipping paper containing all the information required on the manifest in subsection (e)(1)(v) of this section except the identification numbers, generator's certification and signatures along with the shipment.

(vi) The delivering rail or water transporter shall obtain the signature, date of receipt of shipment, and certification of the authorized representative of the treatment, storage or disposal facility on either the manifest or the shipping paper.

(vii) The designated treatment, storage or disposal facility's authorized representative shall sign and date and certify the acceptance of the shipment on the manifest forwarded by the generator or initial transporter and shall obtain the signature, date of delivery of shipment, and certification of the rail or water transporter.

(viii) For shipments within the Commonwealth of Pennsylvania, the treatment, storage or disposal facility's authorized representative shall retain completed Copies 1 and 4 of the manifest and return Part B of Copy 3 to the generator.

(ix) In the case of the interstate shipment of hazardous waste, the treatment, storage or disposal facility's authorized representative shall detach and distribute Part B of Copies 1, 2 and 3 of the manifest in the following manner:

(A) Treatment, storage or disposal facility's authorized representative shall forward Part B of Copy 1 of the manifest to the state in which the designated treatment, storage or disposal facility is located.

(B) Treatment, storage or disposal facility's authorized representative shall forward Part B of Copy 2 of the manifest to the state in which the installation generating the hazardous waste is located, and shall return Part B of Copy 3 of the manifest to the generator within 24 hours after the de-

livery of the shipment. The treatment, storage and disposal facility shall retain Copy 4 for its records.

(f) Pretransport requirements, packing, labeling, marking and placarding.

(1) Before transporting or offering a shipment of hazardous waste for transportation off-site, a generator shall perform the following:

(i) place the hazardous waste in containers or packages meeting United States Department of Transportation requirements under 49 C.F.R. Parts 173, 178 and 179;

(ii) label and mark each container or package in accordance with United States Department of Transportation requirements under 49 C.F.R. Part 172; and

(iii) permanently mark each container of 110 gallons or less of hazardous waste according to United States Department of Transportation requirements under 49 C.F.R. § 172.304 with the following:

"HAZARDOUS WASTE - PENNSYLVANIA AND FEDERAL LAWS PROHIBIT IMPROPER DISPOSAL. If found contact the nearest police, public safety authority, the U.S. EPA at 215-597-9898, or the PA Department of Environmental Resources at 717-787-4343, if found within the Commonwealth of Pennsylvania.

Generator's Name _____

and Address _____

Manifest Document Number _____

Waste Description _____

U. N. Number _____

(2) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall placard or offer the initial transporter the appropriate placards according to United States Department of Transportation requirements under 49 C.F.R. Part 172, Subpart F.

(g) Accumulation.

(1) A generator may accumulate hazardous waste on-site without a permit for 90 days or less, provided that:

(i) All such waste is shipped off-site or treated or disposed of on-site within 90 days or less.

(ii) The waste is placed in containers which meet all United States Department of Transportation packaging, marking and labeling requirements in subsection (f) of this section, or in tanks, provided that the generator complies with all the requirements of § 75.265(r) of this title (relating to

tanks), excluding the requirement for Waste Analysis and Trial Test.

(iii) All containers are managed in accordance with § 75.265(g) of this title (relating to use and management of containers).

(iv) On each container, each date on which any hazardous waste was placed in that container shall be clearly marked and visible for inspection.

(v) The generator complies with the requirements of § 75.265(h) of this title (relating to preparedness and prevention), § 75.265(i) of this title (relating to contingency plan and emergency procedures) and § 75.265(f) of this title (relating to personnel training).

(2) A generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of §§ 75.264 and 75.265 of this title relating to new hazardous waste management facilities and interim status for hazardous waste management facilities and permit program for new and existing hazardous waste management facilities and the permit requirements of § 75.265 of this title.

(h) Recordkeeping.

(1) A generator shall retain a copy of each manifest signed in accordance with subsection (e)(4) of this section for 20 years or until he receives a signed copy from the designated facility which received the waste. This signed copy shall be retained at the building, property, premises or place where hazardous waste is generated or at a location approved by the Department as a record for at least 20 years from the date on which the waste was accepted by the initial transporter.

(2) A generator shall retain a copy of each quarterly report and exception report for a period of at least 20 years from the due date of the report.

(3) A generator shall retain records of any test results, waste analyses or other determinations made in accordance with subsection (b) of this section for at least 20 years from the date the waste was last sent for on-site or off-site treatment, storage or disposal. The generator shall furnish these records to the Department upon request.

(4) The periods of retention referred to in this subsection shall be extended automatically during the course of any enforcement action regarding the regulated activity or as requested by the Department.

(i) Quarterly report.

(1) A generator who ships hazard-

ous waste off-site shall submit quarterly reports:

(i) To the Department on a form designated by the Department. The form shall contain as a minimum the following information.

(A) The name, identification number, mailing address, and the location of the generator.

(B) The name and telephone number of generator's contact person.

(C) The identification and license number of each transporter.

(D) The name, identification number and address of each HWM facility.

(E) The description, Department of Transportation hazard class and hazardous waste number of the hazardous waste.

(F) The amount and units of measure of each hazardous waste in a shipment.

(G) The manifest document number for each hazardous waste.

(H) Signature and certification of the generator's authorized representative.

(I) The information required by subsections (C)(D)(E)(F) and (G) shall be provided for each shipment of hazardous waste and each waste stream within the shipment.

(ii) To the Department not later than the last day of the following month for the quarter: January through March due on or before April 30; April through June due on or before July 31; July through September due on or before October 31; October through December due on or before January 31.

(2) A generator who treats, stores, or disposes of hazardous waste at an on-site facility shall submit a quarterly report covering these wastes in accordance with §§ 75.264, 75.265, and 75.266 of this title.

(j) *Exception reporting.*

(1) A generator who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter or within seven days of the date of estimated arrival at the hazardous waste facility, whichever is less, shall contact the transporter or the owner or operator or authorized representative of the designated hazardous waste management facility, or both, to determine the status of the hazardous waste shipment and then notify the Department.

within 24 hours, by telephone, of the status of the shipment.

(2) A generator shall notify by telephone and submit an exception report to the Department, if he has not received a copy of the manifest with the handwritten signature of the owner, operator, or his authorized representative of the designated hazardous waste management facility within 45 days of the date the waste was accepted by the initial transporter or within 14 days of the date the waste was expected to arrive at the hazardous waste facility, whichever is less. The exception report shall include the following:

(i) A legible copy of the manifest for which the generator does not have confirmation of delivery.

(ii) A cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

(k) *Additional reporting.* The Department may require generators to furnish additional reports concerning the quantities and disposition of waste

identified or listed in § 75.261 of this title (relating to criteria, identification and listing of hazardous waste.)

(1) *Hazardous waste disposal plan.* If required by the Department, a hazardous waste generator after January 1, 1981 shall, submit to the Department for its approval a plan relating to the disposal of such hazardous waste at either an on-site or off-site treatment or disposal facility.

(m) *Hazardous waste discharges or spills.*

(1) Spills and discharges which are in amounts less than the reportable quantities, which do not result in discharges into surface or ground water, and which are managed according to an approved contingency plan do not have to be reported. The reportable quantities of the hazardous wastes spilled or discharged on-site are set forth below in Table 1. For any waste with more than one hazard code, the most stringent reportable quantity shall apply. Any discharges or spills into surface or ground water shall be reported regardless of quantity spilled or discharged.

TABLE 1

Physical Form	Unit	Hazard Codes I, C, R, and E		
		H	T	
Liquids*	Gal	5	5	10
Solid	Lbs	10	100	1000

*Liquids are flowable substances which contain less than 20% solids by dry weight. Flowable refers to flow in the sense of pourable as a liquid.

In the event of a discharge or spill equal to or greater than the reportable quantity of hazardous waste, the generator shall take appropriate immediate action to protect the health and safety of the public and the environment and immediately notify the Department by telephone at 717-787-4343 with the following information:

(i) Name of the person reporting the spill.

(ii) Name and identification number of generator.

(iii) Phone number where person reporting the spill can be reached.

(iv) Date, time and location of the spill.

(v) Brief description of the incident.

(vi) For each waste involved in the spill:

(A) the shipping name, hazard class, and U. N. number;

(B) the estimated quantity of waste spilled.

(vii) The extent of contamination of land, water, or air, if known.

(2) If a discharge or spill of hazardous waste occurs during onsite unloading, loading, storage or plant operation and a departmental official acting within the scope of his official responsibilities determines that immediate removal of the waste is necessary to protect the health and safety of the public and the environment, that official may authorize in writing the removal of the waste by transporters who do not have identification numbers or licenses and without the preparation of a manifest.

(3) A generator shall clean up any hazardous waste discharge or spill that occurs during on-site unloading, loading, storage or plant operation and take such action as may be required or approved by the Department so that the discharge or spill no longer presents a hazard to the health and safety of the public or the environment.

(4) In addition, the generator shall file a written report on any reportable

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hazardous waste discharge or spill with the Department within 15 days after the incident and supply the Department with any other information it may require or request that pertains to the discharge. The report on the hazardous waste spill or discharge shall be entitled, "Hazardous Waste Spill Report" and shall contain the following information:

- (i) the name, address and identification code of the generator and the date, time and location of the incident;
- (ii) a brief description of the circumstances causing the incident;
- (iii) a description of each of the hazardous wastes involved in the incident including the estimated quantity spilled by weight or volume;
- (iv) a legible copy of the manifest document, if applicable;
- (v) a description of any contamination of land, water or air that has occurred due to the incident; and
- (vi) a description of what actions the generator intends to take to prevent a similar occurrence in the future.

(5) All generators of hazardous waste shall be responsible for developing and implementing a contingency plan approved by the Department for effective action to minimize and abate discharges or spills of hazardous wastes from an incident resulting from the generator's activities on or adjacent to the generator's property. Such contingency plan shall require compliance with §§ 75.264 and 75.265 of this title be developed in accordance with Department guidelines for contingency plans, and be submitted to the department for approval as the Department prescribes.

(n) *Farmers.* A farmer disposing of waste pesticides from his own use which are hazardous wastes is not required to comply with §§ 75.262, 75.264, and 75.265 of this title for those wastes provided he triple rinses each emptied pesticide container in accordance with § 75.261(h)(4)(iii) of this title, and disposes of the pesticide residues on his own farm in a manner consistent with the disposal instructions on the pesticide label.

(o) *International shipments.*

(1) Any generator who exports hazardous waste to a foreign country from this Commonwealth or imports hazardous waste from a foreign country into this Commonwealth shall comply with the requirements of this section and with the special requirements of this subsection.

(2) When shipping hazardous waste

outside the United States, the generator shall:

(i) Notify the Department and the EPA Administrator in writing four weeks before the initial shipment of hazardous waste to each country in each calendar year;

(A) The waste shall be identified by its EPA identification number and its Department of Transportation shipping description;

(B) The name and address of the foreign consignee shall be included in this notice;

(C) These notices shall be sent to: Hazardous Waste Export, Division for Oceans and Regulatory Affairs (A-107), United States Environmental Protection Agency, Washington, D.C. 20460.

(ii) Require that the foreign consignee confirm the delivery of the waste in the foreign country. A copy of the manifest signed by the foreign consignee may be used for this purpose;

(iii) Meet the requirements under § 75.262(e) of this title for the manifest, except that:

(A) In place of the name, address and EPA identification number of the designated facility, the name and address of the foreign consignee shall be used;

(B) The generator shall identify the point of departure from the United States through which the waste shall travel before entering a foreign country.

(3) A generator shall file an exception report, if:

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

(ii) within 90 days from the date the waste was accepted by the initial transporter, the generator has not received written confirmation from the foreign consignee that the hazardous waste was received.

(4) When importing hazardous waste, a person shall meet all requirements of subsection (e) of this section of the manifest except the following:

(i) In place of the generator's name, address and EPA identification number, the name and address of the foreign generator and the importer's name, address and EPA identification number shall be used.

(ii) In place of the generator's signature on the certification statement, the

United States importer or his agent shall sign and date the certification and obtain the signature of the initial transporter.

§ 75.263. Transporters of hazardous waste.

(a) *Scope.*

(1) This section shall apply to any person or municipality who transports hazardous wastes which are generated, stored, treated or disposed of within the Commonwealth.

(2) This section does not apply to on-site transportation of hazardous wastes by generators or on-site transportation by owners or operators of permitted hazardous waste management facilities.

(3) A transporter of hazardous wastes shall comply with the requirements of § 75.262 of this title (relating to generators of hazardous waste) if he transports hazardous wastes into the Commonwealth from abroad.

(b) *Identification number.*

(1) Except as otherwise provided in subsection (g) of this section, a transporter shall not transport hazardous wastes without having received an identification number from the Department.

(2) A transporter who has not received an identification number may obtain one by applying to the Department using the notification form. Upon receiving the request the Department will assign an identification number to the transporter.

(3) A transporter shall not accept a shipment of hazardous wastes from a generator who has not received an identification number, except as otherwise provided in § 75.261(d) and (e) of this title (relating to criteria, identification and listing of hazardous waste), and subsection (g) of this section.

(4) An identification number received as a result of notification to EPA pursuant to section 3010 of the RCRA (42 U.S.C. § 6930) shall be deemed to satisfy the requirements of this section when furnished to the Department upon request.

(c) *Licensing.*

(1) Except as otherwise provided in paragraph (2) of this subsection or subsection (g) of this section, no person or municipality shall transport any hazardous waste within the Commonwealth after the effective date of this section without first obtaining a license from the Department.

(2) A person or municipality who has been transporting hazardous

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wastes within the Commonwealth on the effective date of the promulgation or revision of § 75.261 of this title (relating to criteria, identification, and listing of hazardous waste) who files a notification form as required by § 75.267 of this title (relating to notification of hazardous waste activities), and submits a license application as required by this section within 90 days of the effective date of this section or in case of revision of § 75.261 of this title (relating to criteria, identification and listing of hazardous waste) within 90 days of the effective date of such revision shall be treated as having been issued a license until such time as a final departmental action on such application is made. In no instance shall such person or municipality continue to transport hazardous waste without obtaining a license from the Department on or before September 5, 1982.

(3) A person or municipality desiring to obtain a license to transport hazardous waste within the Commonwealth shall perform the following:

(i) Comply with § 75.267 of this title (relating to notification of hazardous waste activities) requiring notification.

(ii) File a hazardous waste transporter license application with the Department. Such application shall be on a form provided by the Department and shall be completed as required by the instructions supplied with such form.

(iii) Deposit with the Department a collateral bond which is conditional upon compliance by the licensee with all of the requirements of the act, the rules and regulations promulgated thereunder, the terms and conditions of the license and any Department order issued to the licensee. The amount, duration, form, conditions and terms of the bond shall conform to the requirements of subsection (i) of this section.

(iv) Submit a certificate issued by an insurance company authorized to do business in this Commonwealth certifying that the license has a public liability insurance policy in force covering the licensee's transportation of hazardous wastes. The amount, duration, form, conditions and terms of this insurance shall conform to the requirements of subsection (i) of this section.

(v) Supply the Department with any additional information it may require.

(4) Upon receiving the application and the information required in subsection (c)(3) of this section, the Department will evaluate the application

for a license and any other relevant information and issue or deny the license. If a license is denied, the Department will advise the applicant of the reasons for denial in writing.

(5) A license granted or renewed under this regulation shall be valid for a period of two years unless the Department determines that the circumstances justify issuing a license for a period of less than two years. The expiration date shall be set forth on the license.

(6) The Department may at any time place such terms and conditions upon a license granted or renewed under subsection (c) of this section as it deems necessary to protect the public health, safety and the environment.

(7) A license to transport hazardous wastes shall be nontransferable.

(8) The Department may revoke or suspend a license in whole or in part for any of the following reasons:

(i) violation of any applicable requirement of the act or a regulation promulgated pursuant to the act;

(ii) aiding or abetting the violation of any provisions of the act or a regulation promulgated pursuant to the act;

(iii) misrepresentation of a fact either in the application for the license or renewal or in information required or requested by the Department;

(iv) failure to comply with the terms or conditions placed upon the license or renewal;

(v) failure to comply with any order issued by the Department; or

(vi) failure to maintain the required bond amount or insurance.

(d) *Manifest.*

(1) General requirements for a manifest shall consist of the following:

(i) A generator who transports or offers for transportation a shipment of hazardous waste to an off-site treatment, storage or disposal facility shall complete a manifest before the waste is transported off-site.

(ii) For all hazardous waste shipments designated for off-site treatment, storage, or disposal within this Commonwealth, the generator shall use the manifest forms provided by the Department and shall distribute the manifest forms according to the instructions specified on the manifest.

(iii) For all hazardous waste shipments generated in this Commonwealth and designated for treatment, storage or disposal outside this Commonwealth, the generator shall use the

EPA authorized disposer state manifest form or format, or a manifest form meeting and the minimum EPA requirements.

(iv) A generator shall designate on the manifest one facility which is permitted to manage the waste described on the manifest.

(v) The Department manifest will require the following information as a minimum:

(A) A unique manifest document number.

(B) The names, site addresses, telephone numbers and identification numbers of the generator, transporter(s) and treatment, storage or disposal facility.

(C) The proper United States Department of Transportation shipping name, United States Department of Transportation hazard class, and U. N. number of the waste as outlined in the United States Department of Transportation 49 C.F.R. §§ 172.101, 172.202 and 172.203.

(D) The physical form — solid, liquid or gas — the total quantity of each hazardous waste by units of weight or volume, and the type and number of containers.

(E) A certification equivalent to the following: "This is to certify that the above named materials are properly classified, described, packaged, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U. S. EPA, and the state. The wastes described were consigned to the transporter named. The treatment, storage or disposal (TSD) facility can and will accept the shipment, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge."

(2) The hazardous waste manifest shall consist of six copies, with copies 1, 2 and 3 detaching into two parts, A and B. The manifest form shall be completed and routed as follows, except that manifests for bulk shipments transported by rail or water shall be completed and routed according to scheme set forth in subsection (d)(11) of this section.

(i) The generator shall complete Part A of all copies of the manifest. The generator shall instruct the initial transporter's authorized representative to sign, date and certify the receipt of the shipment.

(ii) For shipments of hazardous waste generated within the Commonwealth of Pennsylvania and to be dis-

posed of within the Commonwealth of Pennsylvania, the generator shall retain a complete Copy 2 of the manifest and Part A of Copy 3 for his records.

(iii) In the case of an interstate shipment of hazardous waste, the generator shall detach Part A of copies 1, 2 and 3, distribute Part A, Copy 1 to the disposer state, Part A, Copy 2 to the generator state, and retain Part A, Copy 3 for his records.

(iv) The transporter's authorized representative shall carry the remaining copies of the manifest along with the shipment.

(v) Upon delivery of the shipment to the designated treatment, storage or disposal facility, or to transporter number two, transporter number one shall sign and date and certify delivery of the shipment, obtain the signature, date of receipt of shipment, and certification of the treatment, storage or disposal facility's authorized representative or the authorized representative of transporter number two and detach and retain Copy 5 of the manifest.

(vi) Upon delivery of the shipment to the designated treatment, storage or disposal facility by transporter number two, transporter number two shall sign and date and certify the delivery of shipment, obtain the signature, date of receipt of shipment, and certification of the treatment, storage and disposal facility's authorized representative and detach and retain Copy 6 of the manifest.

(vii) For shipments within the Commonwealth of Pennsylvania, the treatment, storage, or disposal facility's authorized representative shall retain complete copies 1 and 4 of the manifest and return Part B of Copy 3 to the generator.

(viii) In the case of the interstate shipment of hazardous waste, the treatment, storage, or disposal facility's authorized representative shall detach and distribute Part B of copies 1, 2, and 3 of the manifest in the following manner:

(A) Treatment, storage or disposal facility's authorized representative shall forward Part B of Copy 1 of the manifest to the state in which the designated treatment, storage, or disposal facility is located.

(B) Treatment, storage, or disposal facility's authorized representative shall forward Part B of Copy 2 of the manifest to the state in which the installation generating the hazardous waste is located and shall return Part B of Copy 3 of the manifest to the generator within 24 hours after the delivery of the shipment. The treat-

ment, storage or disposal facility shall retain Copy 4 for its records.

(3) Each manifest form shall record a maximum of two transporters. If more than two transporters are to be utilized, the generator shall complete additional manifest forms and reference the first manifest document number on such additional manifest forms.

(4) If more than four hazardous wastes from the same generators are to be shipped in the same shipment, the generator shall complete additional manifests for each group of four or less hazardous wastes.

(5) Copies of the manifest retained by the generator and the treatment, storage or disposal facility shall be furnished to the Department upon request.

(6) Except as otherwise provided in § 75.261(d) and (e) of this title (relating to criteria, identification and listing of hazardous waste), and subsection (g) of this section a transporter shall not accept a shipment of hazardous wastes from a generator or another transporter unless the shipment is accompanied by a completed manifest.

(7) A transporter shall not accept or transport a shipment of hazardous waste:

(i) Which is in containers or packaging which are leaking or appear to be leaking, damaged, or otherwise not in compliance with § 75.262 of this title (relating to generators of hazardous waste); and

(ii) Which is not labeled, marked and placarded in accordance with § 75.262 of this title (relating to generators of hazardous waste);

(iii) Unless the number and type of containers to be transported are as stated on the manifest.

(8) Except as otherwise provided in § 75.261(d)(4) of this title (relating to criteria, identification and listing of hazardous waste), hazardous waste shipments shall be transported only to:

(i) the hazardous waste storage, treatment and disposal facilities which the generator has designated on the manifest as a facility permitted by the Department to manage such waste or as a facility not within this Commonwealth which is authorized to manage such waste by a State or Federal government; or

(ii) the next designated transporter.

(9) A transporter of hazardous waste shall ensure the following are performed:

(i) The number of copies of the manifest required by subsection (d) of this section accompany the shipment of hazardous waste at all times.

(ii) The shipment complies with all applicable United States Department of Transportation requirements and Pennsylvania Department of Transportation regulations.

(iii) Delivery of the entire quantity of hazardous waste which he has accepted from a generator or a transporter.

(10) If the hazardous waste cannot be delivered in accordance with subsection (d)(2) and (11) of this section, the transporter shall contact the generator for further instruction.

(11) For bulk shipment of hazardous waste designated for treatment, storage or disposal within this Commonwealth solely by railroad or water, the manifest shall be completed and routed as follows:

(i) The generator shall complete Part A of all copies of the manifest. The generator shall instruct the initial transporter's authorized representative to sign and date and certify the receipt of the shipment.

(ii) For shipments of hazardous waste generated within the Commonwealth of Pennsylvania and to be disposed of within the Commonwealth of Pennsylvania, the generator shall retain a complete Copy 2 of the manifest and Part A of Copy 3 for his records.

(iii) In the case of an interstate shipment of hazardous waste, the generator shall detach Part A of copies 1, 2 and 3, distribute Part A of Copy 1 to the disposer state, Part A of Copy 2 to the generator state, and retain Part A of Copy 3.

(iv) The generator or the initial transporter delivering a shipment of hazardous waste to the rail or water transporter shall obtain the signature and date and certification of the rail or water transporter on the manifest and forward the remaining copies of the manifest, except those for additional transporters, to the designated treatment, storage or disposal facility. Each transporter other than the rail or water transporter shall retain his copy of the manifest for his records.

(v) The rail or water transporter shall carry either his copy of the manifest or the shipping paper containing all the information required on the manifest in subsection (d)(1)(v) of this section except the identification numbers, generator's certification and signatures along with the shipment.

(vi) The delivering rail or water

transporter shall obtain the signature, date of receipt of shipment, and certification of the authorized representative of the treatment, storage or disposal facility on either the manifest or the shipping paper.

(vii) The designated treatment, storage or disposal facility's authorized representative shall sign and date and certify the acceptance of the shipment on the manifest forwarded by the generator or initial transporter and shall obtain the signature, date of delivery of shipment, and certification of the rail or water transporter.

(viii) For shipments within the Commonwealth of Pennsylvania, the treatment, storage or disposal facility's authorized representative shall retain completed copies 1 and 4 of the manifest and return Part B of Copy 3 to the generator.

(ix) In the case of the interstate shipment of hazardous waste, the treatment, storage or disposal facility's authorized representative shall detach and distribute Part B of copies 1, 2 and 3 of the manifest in the following manner:

(A) Treatment, storage or disposal facility's authorized representative shall forward Part B of Copy 1 of the manifest to the state in which the designated treatment, storage or disposal facility is located.

(B) Treatment, storage or disposal facility's authorized representative shall forward Part B of Copy 2 of the manifest to the state in which the installation generating the hazardous waste is located, and shall return Part B of Copy 3 of the manifest to the generator within 24 hours after the delivery of the shipment. The treatment, storage and disposal facility shall retain Copy 4 for its records.

(e) *Blending, mixing, treating or storing of hazardous waste by transporters.*

(1) If a transporter blends or mixes hazardous waste of different United States Department of Transportation shipping descriptions, he shall comply with § 75.262 of this title (relating to generators of hazardous waste).

(2) If a transporter stores hazardous waste in a manner other than normal in-transit storage or alters the composition of hazardous waste, he shall comply with all applicable requirements of §§ 75.264 and 75.265 of this title (relating to new hazardous waste management facilities).

(f) *Recordkeeping.*

(1) A transporter of hazardous waste shall retain a copy of the mani-

fest signed by the generator, the transporter himself and the receiving transporter of the owner or operator of the designated hazardous waste management facility for a period of 20 years from the date the hazardous waste was accepted by the initial transporter.

(2) For shipments delivered to the designated hazardous waste management facility in bulk by rail or water, each rail or water transporter shall retain a copy of a shipping paper containing all the information required in subsection (d)(9) of this section for a period of 20 years.

(3) The periods of retention referred to in this subsection shall be extended automatically during the course of any enforcement action regarding the regulated activity or as requested by the Department.

(g) *Hazardous waste discharge or spills.*

(1) In the event of any discharge or spill of hazardous waste during transportation, the transporter shall take appropriate immediate action to protect the health and safety of the public or the environment and shall immediately notify the Department by telephone at 717-787-4343 and the National Response Center at 800-424-8802 with the following information:

(i) Name of the person reporting the spill.

(ii) Name, address, and identification number of the transporter.

(iii) Phone number where the person reporting the spill can be reached.

(iv) Date, time and location of the spill.

(v) Mode of transportation and type of transport vehicle.

(vi) Brief description of the incident.

(vii) For each waste involved in the spill:

(A) the name and identification number of the generator of the waste;

(B) shipping name, hazard class and U. N. number of the waste; and

(C) estimated quantity of the waste spilled.

(viii) Shipping name, hazard class, and U. N. number of any other material carried.

(2) In the event of a discharge or spill of hazardous waste during transportation, the transporter shall immediately notify the affected municipality of the occurrence and nature of the discharge or spill.

(3) If a discharge or spill of hazardous waste occurs during transporta-

tion, and a departmental official acting within the scope of his official responsibilities determines that immediate removal of the waste is necessary to protect the health and safety of the public or the environment, that official may authorize in writing the removal of the waste by transporters who do not have identification numbers or licenses and without the preparation of a manifest.

(4) A transporter shall clean up any hazardous waste discharge or spill that occurs during transportation or take such action as may be required or approved by the Department so that the discharge or spill no longer presents a hazard to the health and safety of the public or the environment.

(5) Report in writing as required by 49 C.F.R. § 171.16 to the Director, Office of Hazardous Materials Registration, Materials Transportation Bureau, Department of Transportation, Washington, D. C., 20590, send a copy to the Department, and send another copy of the report to the generator.

(6) A transporter of hazardous waste shall develop and implement a contingency plan for effective action to minimize and abate discharges or spills of hazardous wastes from an incident while transporting hazardous wastes. The transporter shall develop such plan in accordance with the Department's guidelines for contingency plans and shall submit such plan to the Department as the Department prescribes for its approval.

(h) *Safety.*

(1) A transporter of hazardous waste shall provide adequate personnel training to ensure all transport activities are conducted safely and in compliance with all applicable laws and regulations.

(2) The transporter shall have and maintain at least, but not limited to, the following safety equipment for use during cleanup of spills in the vehicle, loading and unloading of hazardous wastes and to initially arrest incidents until emergency personnel arrive:

(i) Proper protective clothing and equipment to enable personnel associated with the transportation to work safely with the hazardous wastes that are accepted by the transporter.

(ii) One eyewash apparatus per vehicle which is readily available in case of emergency.

(iii) First-aid supplies.

(iv) Suitable means of communication for summoning aid in an emergency.

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(3) Equipment used to handle hazardous waste including but not limited to storage containers, processing equipment, trucks and loaders that are contaminated with hazardous waste shall be decontaminated prior to being serviced or used for any purpose other than transportation of compatible hazardous waste and prior to being serviced or used for transportation of non-hazardous waste, unless such wastes are compatible and are transported to a hazardous waste storage, treatment or disposal facility. Contaminated wash water, waste solutions or residues generated from washing or decontaminating equipment shall be collected and disposed of as a hazardous waste in compliance with all applicable laws and regulations.

(4) A transporter, when handling liquid hazardous wastes shall have sufficient absorbent mats and material in the vehicle to absorb not less than 5.0% of the volume of liquids which are being transported in containers of 110 gallons or less.

(i) *Bonding and insurance requirements.*

(1) A Collateral bond means an indemnity agreement in a certain sum payable to the Department executed by the licensee and which is supported by the deposit with the Department of cash, negotiable bonds of the United States of America, the Commonwealth of Pennsylvania, the Pennsylvania Turnpike Commission, the General State Authority, the State Public School Building Authority or any Commonwealth municipality, or an irrevocable letter of credit of any bank organized or authorized to transact business in the United States.

(2) No new, revised or renewed license to transport hazardous wastes shall be issued by the Department before the applicant for such a license has filed a collateral bond payable to the Department on a form provided by the Department, and such bond has been approved by the Department.

(3) The amount of the bond shall be \$10,000 at a minimum and be in an amount sufficient to assure that the licensee shall faithfully perform all of the requirements of the act, the rules and regulations promulgated thereunder, the terms and conditions of the license and a Department order issued to the licensee.

(4) Liability under the bond shall continue at a minimum for the duration of the license, any renewal thereof and for a period of one year after expiration, termination, revocation or surrender of the license. The one-year

extended period of liability shall include, and shall be automatically extended for, such additional time during which administrative or legal proceedings involving a violation of the act, rules and regulations promulgated thereunder, the terms of conditions of a license, or a Department order by the transporter, are pending.

(5) The Department may require additional bond amounts at any time if the methods of transporting wastes change, the kind of wastes transported changes or the Department determines such additional bond amounts are necessary to guarantee compliance with the act, the rules and regulations, the terms and conditions of the license, or any Department order.

(6) Collateral bonds shall be subject to the following conditions:

(i) The Department will obtain possession of and keep in custody all collateral deposited by the licensee, until authorized for release as provided in this subsection.

(ii) The Department shall value collateral at their current market value.

(iii) Collateral shall be in the name of the licensee, not in the name of third parties, and shall be pledged and assigned to the Department free and clear of claims.

(7) Letters of credit shall be subject to the following conditions:

(i) The letter may only be issued by a bank organized or authorized to do business in the United States.

(ii) Letters of credit shall be irrevocable. The Department may accept a letter of credit which is irrevocable for a term of three years if:

(A) the letter of credit is automatically renewable for additional terms unless the bank gives at least 90 days prior written notice to the Department of its intent to terminate the credit at the end of the current term; and

(B) the Department has the right to draw upon the credit before the end of its term and convert it into a cash collateral bond, if the licensee fails to replace such letter of credit with other acceptable collateral within 30 days of the bank's notice to terminate the credit.

(iii) The letter of credit shall be payable to the Department in part or in full upon demand of the Department in the case of a forfeiture or the failure of the operator to replace the letter of credit as provided in this section.

(iv) The Department will not accept letters of credit from a bank for a licensee in excess of 10% of the bank's

capital surplus account as shown on a balance sheet certified by a Certified Public Accountant.

(v) All letters of credit shall be subject to the Uniform Customs and Practice for Documentary Credits, International Chamber of Commerce Publication No. 290, including amendments and successor publications.

(vi) Letters of credit shall provide that the bank will give prompt notice to the licensee and the Department of a notice received or action filed alleging the insolvency or bankruptcy of the bank, or alleging any violations of regulatory requirements which could result in suspension or revocation of the bank's charter or license to do business.

(vii) Upon the incapacity of a bank by reason of bankruptcy, insolvency or suspension or revocation of its charter or license, the licensee shall be deemed to be without collateral bond coverage in violation of subsection (c)(3)(iii) of this section. The Department shall issue a notice of violation against a licensee who is without bond coverage. The notice shall specify a reasonable period to replace bond coverage, not to exceed 90 days.

(8) Bonds which are not declared forfeit in accordance with subsection (i)(9) of this section shall be released to the licensee one year after expiration, termination, revocation or surrender of the license.

(9) The Department will declare forfeit all the bond if the Department finds that the licensee has violated any of the requirements of the act, the rules and regulations promulgated thereunder, the terms and conditions of the license or a Department order issued to the licensee, and if the Department also finds that the licensee has failed to remedy promptly such violation.

(10) The licensee shall submit at the time of license application and renewal thereof, a certificate from an insurance company licensed to do business in this Commonwealth, certifying that the licensee has a public liability insurance policy in force covering the licensee's transportation of hazardous wastes. The certificate shall provide for personal injury and property damage protection including coverage for the cost of cleaning up a hazardous waste spill and consequential damages resulting from such spill and the efforts to clean it up, in an amount adequate to compensate all persons injured and property damaged. Minimum insurance coverage for personal injury and property damage shall be

\$1,000,000. The insurance policy shall be maintained in full force during the term of the license and renewals thereof. The insurance policy shall include a rider requiring that the insurer give the Department written notice of any substantive changes in the policy including termination or failure to renew.

(11) All remedies provided in law for violation of the act, the rules and regulations adopted thereunder or the conditions of the license, are expressly preserved. Nothing in this section shall be construed as an exclusive penalty or remedy for such violations of law. No action taken pursuant to this section shall waive or impair any other remedy or penalty provided in law.

§ 75.264. New hazardous waste management facilities.

(a) Scope.

(1) This section establishes acceptable minimum standards for management of hazardous wastes in new facilities as defined in § 75.261 of this title (relating to criteria, identification, and listing of hazardous waste).

(2) The standards of this section apply to any person or municipality who treats, stores or disposes of hazardous waste unless otherwise specified in this section or § 75.261 of this title (relating to criteria, identification, and listing of hazardous waste).

(3) The requirements of this section do not apply to the following:

(i) The owner or operator of a POTW which treats, stores or disposes of hazardous waste; if the Permit by Rule provision in § 75.265(z)(14) of this title is complied with.

(ii) A person or municipality who owns or operates a facility permitted by the Department to manage municipal or residual solid waste, if the only hazardous waste the facility treats, stores or disposes of is excluded from regulation under § 75.261(d) of this title (relating to criteria, identification, and listing of hazardous waste) provided that:

(A) the facility receives written approval to accept such wastes from the Department in compliance with subsection (c) of this section; and

(B) the total hazardous waste received at the facility during any quarter is less than 1.0% by weight of the total amount of non-hazardous wastes, managed at the facility during the previous quarter.

(iii) The owner or operator of a facility

which treats or stores hazardous waste, if such treatment or storage meets the criteria in § 75.261(e)(1) of this title (relating to criteria, identification, and listing of hazardous waste) except to the extent that § 75.261(e)(2) of this title (relating to criteria, identification, and listing of hazardous waste) provides otherwise.

(iv) A generator accumulating waste on-site for less than 90 days in compliance with § 75.262(g) of this title (relating to generators of hazardous waste).

(v) A farmer disposing of waste pesticides from his own use in compliance with § 75.262(n) of this title (relating to generators of hazardous waste).

(vi) The owner or operator of a totally enclosed treatment facility as defined in § 75.260(a) of this title (relating to definitions and requests for determinations).

(b) Identification numbers.

(1) A person or municipality who owns or operates a hazardous waste management facility shall not accept hazardous waste for treatment, storage or disposal without having received an identification number from the Department and shall not accept hazardous waste from any transporter who has not received an identification number and license except as otherwise provided.

(2) An owner or operator of a hazardous waste management facility who has not received an identification number may obtain one by applying to the Department using the notification form. Upon receiving the request, the Department shall assign an identification number to the owner or operator.

(3) An identification number received as a result of notification to EPA pursuant to section 3010 of the Resource Conservation and Recovery Act (42 U.S.C. § 6930) shall be deemed to satisfy the requirements of this section when furnished to the Department upon request.

(c) General requirements for hazardous waste management approvals and analysis.

(1) Before an owner or operator treats, stores or disposes of a specific hazardous waste from a specific generator for the first time, he shall submit to the Department for approval, on a form provided by the Department, a report which the owner or operator shall retain for 20 years, and which shall include the following information: a detailed chemical and phys-

ical analysis of the waste, a description of the waste and the process generating the waste, name and address of the HWM facility, description of the HWM facility's treatment, storage and disposal methods, result of liner capability testing, an assessment of the impact of the waste on the HWM facility, and any other information which the Department may prescribe in order for the Department to determine whether the waste will be treated, stored or disposed of in accordance with this section. The chemical and physical analysis of the waste shall be repeated under any of the following circumstances:

(i) when necessary to ensure that it is accurate and up-to-date;

(ii) when the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste has changed; and

(iii) when the results of the inspection or analysis or both, of each hazardous waste for off-site facilities or on-site facilities receiving hazardous waste from off-site sources indicates that the waste received at the facility does not match the description of the waste on the accompanying manifest or shipping paper.

(2) The owner or operator of an off-site facility or an on-site facility receiving hazardous waste from off-site sources shall inspect and, if necessary, analyze each hazardous waste received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(3) The owner or operator shall develop and follow a written waste analysis plan which shall be submitted to the Department for approval at such time in the application process as the Department may prescribe. The plan shall be retained at the facility. At a minimum, the plan shall specify all of the following:

(i) the parameters for which each hazardous waste will be analyzed and the rationale for the selection of these parameters;

(ii) the test methods which will be used to test for these parameters;

(iii) 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:

(A) one of the sampling methods described in Appendix I of § 75.261 of this title (relating to criteria, identification, and listing of hazardous waste); or

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(B) an equivalent sampling method approved by the Department.

(iv) 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;

(v) for off-site facilities, the waste analyses that the hazardous waste generators supply in accordance with the requirements of this subsection;

(vi) where applicable, the testing procedures which will be used to meet the additional waste analysis requirements for the following hazardous waste management methods: tanks, surface impoundments, waste piles, land treatment, landfills, incineration, thermal treatment and chemical, physical, and biological treatment; and

(vii) for off-site facilities or on-site facilities receiving hazardous waste from off-site sources, the procedures which will be used to determine the identity of each hazardous waste managed at the facility and the sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.

(4) The owner or operator of a facility utilizing a liner shall conduct an evaluation of the liner compatibility with the hazardous waste before accepting such a waste for emplacement in a waste pile, surface impoundment, or landfill unless the approval to accept such waste is granted in the permit. The evaluation procedure shall meet the approval of the Department prior to its commencement. The evaluation of the liner shall consist of testing the liner in the presence of the waste for a minimum of 30 days or as otherwise approved by the Department. In lieu of actual testing, existing published or documented data on the hazardous waste or waste generated from similar processes proving the liner compatibility may be substituted if approved by the Department. The results of the evaluation of the liner compatibility shall be furnished to the Department for approval of the waste before acceptance by the facility.

(d) *Security.*

(1) The owner or operator shall prevent unknowing entry, and minimize the possibility for unauthorized entry by persons or livestock onto the active portions of the facility, unless he can demonstrate to the Department that:

(i) 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 a facility; and

(ii) 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 section.

(2) Unless the owner or operator has demonstrated successfully under subsection (d)(1) of this section, a facility shall have:

(i) a 24-hour surveillance system which continuously monitors and controls entry onto the active portion of the facility; or

(ii) an artificial barrier which completely surrounds the active portion of the facility, and a means to control entry, at all times, through the gates or other entrances to the active portion of the facility. A natural barrier may be substituted if approved by the Department.

(iii) The requirements of paragraph (2)(i) and (ii) of this subsection shall be considered satisfied if the facility within which the active portion is located has a surveillance system or a barrier and a means to control entry in accordance with requirements of paragraph (2)(i) and (ii) of this subsection.

(3) Unless the owner or operator has successfully demonstrated under subsection (d)(1) of this section, a sign with the legend, "Danger — Unauthorized Personnel Keep Out" shall 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 the active portion. The legend shall be written in English and legible from a distance of at least 25 feet. Existing signs with other legends may be used provided that the legend on the sign indicates that only authorized personnel are allowed to enter the active portion and entry onto the active portion can be dangerous.

(e) *General inspection and construction inspection requirements.*

(1) The owner or operator shall inspect his facility for malfunctions and deterioration, operator errors, and discharges which may cause or lead to an emission or discharge of hazardous waste constituents to the environment or a threat to human health. The owner or operator shall 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 shall develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices and operating

and structural equipment that are important to preventing, detecting or responding to environmental or human health hazards.

(i) The schedule shall be retained at the facility.

(ii) The schedule shall identify the types of problems which are to be looked for during the inspection.

(3) The frequency of the inspection 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, shall be inspected daily when in use. The inspection schedule shall be submitted with part B of the permit application of § 75.265 of this title.

(4) The owner or operator shall remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule that ensures the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately.

(5) The owner or operator shall record inspections in an inspection log or summary. He shall keep these records for the operating life of the facility at a location approved by the Department. At a minimum, these records shall include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions. These records shall be furnished to the Department upon request.

(6) A schedule for construction of a HWM facility shall be submitted to the Department for approval. At a minimum, the schedule shall provide for Department inspection and approval of each phase of construction.

(f) *Personnel training.*

(1) Facility personnel shall 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 this section. The owner or operator shall ensure that this program includes at a minimum all the elements required under this subsection. This training program shall be outlined and submitted to the Department for approval at such time in the application process as the Department may prescribe.

(2) This program shall be directed by a person trained in hazardous waste management procedures, and shall 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 shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment systems including where applicable.

(i) procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) key parameters for automatic waste feed cut-off systems;

(iii) communications or alarm systems;

(iv) response to fires or explosions;

(v) response to ground-water contamination incidents; and

(vi) shutdown of operations.

(4) Facility personnel shall successfully complete the program required in subsection (f)(1) of this section within six months after the effective date of this chapter 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 shall not work in unsupervised positions until they have completed the training requirements of subsection (f)(1) of this section.

(5) Facility personnel shall participate in an annual review and evaluation of the elements of the initial training required in subsection (f)(1) of this section.

(6) The owner or operator shall maintain the following documents and records at the facility, which shall be furnished to the Department upon request:

(i) The job title for each position at the facility related to hazardous waste management, and the name of the employee holding each position.

(ii) A written job description for each position listed under paragraph (6)(1) of this subsection. 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 shall include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position.

(iii) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (6)(i) of this subsection.

(iv) Records that document that the training or job experience required under this subsection has been given to and completed by facility personnel.

(7) Training records on current personnel shall be retained until closure of the facility. Training records on former employees shall be retained for the operating life of the facility. Personnel training records may accompany personnel transferred within the same company.

(g) Preparedness and prevention.

(1) Facilities shall be designed, constructed, maintained and operated to minimize the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituents to air, soil, surface water, or ground water which could threaten human health or the environment.

(2) All facilities shall be equipped with the following, unless it can be demonstrated to the Department that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified in this subsection:

(i) An internal communications or alarm system capable of providing immediate emergency instruction — voice or signal — to facility personnel.

(ii) 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.

(iii) 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.

(iv) Water at adequate volume and pressure to supply either water hose streams, foam producing equipment, automatic sprinklers, or water spray systems.

(3) All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

(4) Whenever hazardous waste is being poured, mixed, spread, or other-

wise handled, all personnel involved in the operation shall have immediate access to an on-site internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under paragraph (2) of this subsection.

(5) An employee working alone on the premises while the facility is operating shall 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 the Department has determined that such a device is not required under paragraph (2) of this subsection.

(6) The owner or operator shall 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 it can be demonstrated to the Department that aisle space is not needed for any of these purposes.

(7) The owner or operator shall attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for services as follows:

(i) 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.

(ii) 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 others to provide support to the primary emergency authority.

(iii) Agreements with State and local emergency response teams, emergency response contractors, and equipment suppliers.

(iv) 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.

(8) Where State or local authorities decline to enter into such arrangements, the owner or operator shall document the refusal in the operating record.

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(h) *Special handling requirements for ignitable, reactive, or incompatible wastes.* The owner or operator shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. Such waste shall 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, and radiant heat. While ignitable or reactive waste is being handled, the owner or operator shall confine smoking and open flame to specially designated locations. "No Smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(i) *Contingency plan and emergency procedures.*

(1) Each owner or operator shall be responsible for developing and implementing a contingency plan for effective action to minimize and abate hazards to human health and the environment from fire, explosion, emission or discharge of hazardous waste or hazardous waste constituents to air, soil, surface water, or ground water.

(2) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, emission or discharge of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(3) The contingency plan shall describe the actions facility personnel shall take to comply with paragraphs (1), (2), and (12) — (21) of this subsection in response to fire, explosion, emission or discharge of hazardous waste or hazardous waste constituents to air, soil, surface water, or ground water.

(4) The contingency plan and all revisions and amendments thereof, shall be prepared and implemented in accordance with the Department guidelines for contingency plans and submitted to the Department for approval at such time in the application process as the Department prescribes.

(5) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services pursuant to subsection (g) of this subsection.

(6) The plan shall list names, addresses, and phone numbers — office and home — for all persons qualified to act as emergency coordinator, and this list shall be kept up-to-date.

Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.

(7) The plan shall include a list of all required emergency equipment at the facility. The list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(8) The plan shall include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. The plan shall describe signals to be used to begin evacuation, evacuation routes, and alternate evacuation routes, in cases where the primary routes could be blocked by fire or emissions or discharges of hazardous waste.

(9) A copy of the contingency plan and all revisions to the plan shall be:

- (i) maintained at the facility; and
- (ii) submitted to all local police departments, fire departments, hospitals, and emergency response teams that may be called upon to provide emergency services.

(10) The contingency plan shall be reviewed, and immediately amended, if necessary, whenever:

- (i) the facility permit is revised;
- (ii) the plan fails in an emergency;
- (iii) the facility changes, in its design, construction, operation, maintenance, or other circumstances, in a manner that materially increases the potential for fire, explosion, emission or discharge of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
- (iv) the list of emergency coordinators changes; or
- (v) the list of emergency equipment changes.

(11) At all times, there shall be at least one employee either on the facility premises or on call with the responsibility for coordinating all emergency response measures. This emergency coordinator shall 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 shall have the authority to commit the resources needed to carry out the contingency plan.

(12) Whenever there is an imminent

or actual emergency situation, the emergency coordinator shall immediately:

- (i) activate facility alarms or communication systems, where applicable, to notify all facility personnel; and
- (ii) notify local agencies with designated response roles if their help is needed.

(13) Whenever there is a fire, explosion, emission, or discharge, the emergency coordinator shall 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.

(14) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the fire, explosion, emission, or discharge. This assessment shall consider both direct and indirect effects of the release, fire, or explosion.

(15) If the emergency coordinator determines that the facility has had a fire, explosion, emission, or discharge which could threaten human health, or the environment, outside the facility, he shall report his findings as follows:

(i) if his assessment indicates that evacuation of local areas may be advisable, he shall immediately notify appropriate local authorities. He shall be available to help appropriate officials decide whether local areas should be evacuated; and

(ii) He shall immediately notify the Department by telephone at 717-787-4343 and the National Response Center at 800-424-8802. The report shall include the following:

(A) Name of the person reporting the incident.

(B) Name and address and identification number of facility.

(C) Phone number where the person reporting the spill can be reached.

(D) Date, time and location of the incident.

(E) A brief description of the incident including type of incident, nature of hazardous material involvement and possible hazards to human health or the environment.

(F) The extent of injuries, if any.

(G) For each waste involved in the incident, the shipping name, hazard class, U. N. number of the waste and quantity of the waste involved.

(16) During an emergency, the emer-

gency coordinator shall take all reasonable measures necessary to ensure that fires, explosions, emissions, or discharges do not occur, recur, or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

(17) If the facility stops operations in response to a fire, explosion, emission, or discharge, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(18) Immediately after an emergency, the emergency coordinator shall, with Department approval, provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or other material that results from a release, fire, or explosion of the facility.

(19) The emergency coordinator shall ensure that, in the affected area of the facility:

(i) No waste that may be incompatible with the emitted or discharged material is treated, stored, or disposed of until cleanup procedures are completed; and

(ii) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(20) The owner or operator shall notify the Department and the appropriate State or local authorities, that the facility is in compliance with paragraph (19) of this subsection before operations are resumed in the affected areas of the facility.

(21) The owner or operator shall 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 shall submit a written report on the incident to the Department. The report shall include the following:

(i) Name, address, and telephone number of the owner or operator.

(ii) Name, address, and telephone number of the facility.

(iii) Date, time, and type of incident.

(iv) Name and quantity of materials involved.

(v) The extent of injuries, if any.

(vi) An assessment of actual or potential hazards to human health or the environment, where this is applicable.

(vii) Estimated quantity and disposition of recovered material that resulted from the incident.

(j) Manifest system and discrepancy reporting.

(1) Requirements in this subsection apply to owners and operators of off-site facilities and on-site facilities receiving hazardous waste from off-site sources, except as otherwise provided in subsection 75.264(a) of this section.

(2) General requirements for a manifest shall consist of the following:

(i) A generator who transports or offers for transportation a shipment of hazardous waste to an off-site treatment, storage or disposal facility shall complete a manifest before the waste is transported off-site.

(ii) For all hazardous waste shipments designated for off-site treatment, storage, or disposal within this Commonwealth, the generator shall use the manifest forms provided by the Department and shall distribute the manifest forms according to the instructions specified on the manifest.

(iii) For all hazardous waste shipments generated in this Commonwealth and designated for treatment, storage or disposal outside this Commonwealth, the generator shall use the EPA-authorized disposer state manifest form or format, or a manifest form meeting the minimum EPA requirements.

(iv) A generator shall designate on the manifest one facility which is permitted to manage the waste described on the manifest.

(v) The Department manifest shall require the following information as a minimum:

(A) A unique manifest document number.

(B) The names, site addresses, telephone numbers and identification numbers of the generator, transporters and treatment, storage or disposal facility.

(C) The proper United States shipping name, United States hazard class, and U. N. number of the waste as outlined in the United States 49 C.F.R. §§ 172.101, 172.202 and 172.203.

(D) The physical form (solid, liquid or gas), the total quantity of each hazardous waste by units of weight or volume, and the type and number of containers.

(E) A certification equivalent to the following: "This is to certify that the above named materials are properly classified, described, packaged,

marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, United States EPA, and the State. The wastes described were consigned to the transporter named. The treatment, storage or disposal (TSD) facility can and will accept the shipment, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge."

(3) The hazardous waste manifest shall consist of six copies, with copies 1, 2 and 3 detaching into two parts, A and B. The manifest form shall be completed and routed as follows, except that manifests for bulk shipments transported by rail or water shall be completed and routed according to scheme set forth in paragraph (j)(9) of this subsection.

(i) The generator shall complete Part A of all copies of the manifest. The generator shall instruct the initial transporter's authorized representative to sign, date, and certify the receipt of the shipment.

(ii) For shipments of hazardous waste generated within the Commonwealth of Pennsylvania and to be disposed of within the Commonwealth of Pennsylvania, the generator shall retain a complete Copy 2 of the manifest and Part A of Copy 3 for his records.

(iii) In the case of an interstate shipment of hazardous waste, the generator shall detach Part A of copies 1, 2 and 3, distribute Part A, Copy 1 to the disposer state, Part A, Copy 2 to the generator state, and retain Part A, Copy 3 for his records.

(iv) The transporter's authorized representative shall carry the remaining copies of the manifest along with the shipment.

(v) Upon delivery of the shipment to the designated treatment, storage or disposal facility, or to transporter number two, transporter number one shall sign and date and certify delivery of the shipment, obtain the signature, date of receipt of shipment, and certification of the treatment, storage or disposal facility's authorized representative or the authorized representative of transporter number two and detach and retain Copy 5 of the manifest.

(vi) Upon delivery of the shipment to the designated treatment, storage or disposal facility by transporter number two, transporter number two shall sign and date and certify the delivery of shipment, obtain the signature, date of receipt of shipment, and certification of the treatment, storage

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or disposal facility's authorized representative and detach and retain Copy 6 of the manifest.

(vii) For shipments within the Commonwealth of Pennsylvania, the treatment, storage, or disposal facility's authorized representative shall retain complete copies 1 and 4 of the manifest and return Part B of Copy 3 to the generator.

(viii) In the case of the interstate shipment of hazardous waste, the treatment, storage, or disposal facility's authorized representative shall detach and distribute Part B of copies 1, 2, and 3 of the manifest in the following manner:

(A) Treatment, storage or disposal facility's authorized representative shall forward Part B of Copy 1 of the manifest to the state in which the designated treatment, storage, or disposal facility is located.

(B) Treatment, storage, or disposal facility's authorized representative shall forward Part B of Copy 2 of the manifest to the state in which the installation generating the hazardous waste is located and shall return Part B of Copy 3 of the manifest to the generator within 24 hours after the delivery of the shipment. The treatment, storage or disposal facility shall retain Copy 4 for its records.

(4) Each manifest form shall record a maximum of two transporters. If more than two transporters are to be utilized, the generator shall complete additional manifest forms and reference the first manifest document number on such additional manifest forms.

(5) If more than four hazardous wastes from the same generators are to be shipped in the same shipment, the generator shall complete additional manifests for each group of four or less hazardous wastes.

(6) Copies of the manifest retained by the generator and the treatment, storage or disposal facility shall be furnished to the Department upon request.

(7) Note any significant discrepancies in the manifest as defined in paragraph (j) (10) of this subsection (relating to manifest discrepancies) on each copy of the manifest.

(8) Retain at the facility a copy of each manifest for at least 20 years from the date of delivery.

(9) For bulk shipment of hazardous waste designated for treatment, storage or disposal within this Commonwealth solely by railroad or water, the manifest shall be completed and routed as follows:

(i) The generator shall complete Part A of all copies of the manifest. The generator shall instruct the initial transporter's authorized representative to sign and date and certify the receipt of the shipment.

(ii) For shipments of hazardous waste generated within the Commonwealth of Pennsylvania and to be disposed of within the Commonwealth of Pennsylvania, the generator shall retain a complete Copy 2 of the manifest and Part A of Copy 3 for his records.

(iii) In the case of an interstate shipment of hazardous waste, the generator shall detach Part A of copies 1, 2 and 3, distribute Part A of Copy 1 to the disposer state, Part A of Copy 2 to the generator state, and retain Part A of Copy 3.

(iv) The generator or the initial transporter delivering a shipment of hazardous waste to the rail or water transporter shall obtain the signature and date and certification of the rail or water transporter on the manifest and forward the remaining copies of the manifest, except those for additional transporters, to the designated treatment, storage or disposal facility. Each transporter, other than the rail or water transporter, shall retain his copy of the manifest for his records. The rail or water transporter may retain a copy at their discretion.

(v) The rail or water transporter shall carry either his copy of the manifest or the shipping paper containing all the information required on the manifest in § 75.263(j)(2)(v) of this title (relating to transporters of hazardous waste) except the identification numbers, generator's certification and signatures along with the shipment.

(vi) The delivering rail or water transporter shall obtain the signature, date of receipt of shipment, and certification of the authorized representative of the treatment, storage or disposal facility on either the manifest or the shipping paper.

(vii) The designated treatment, storage or disposal facility's authorized representative shall sign and date and certify the acceptance of the shipment on the manifest forwarded by the generator or initial transporter and shall obtain the signature and date and certification of the rail or water transporter.

(viii) For shipments within the Commonwealth of Pennsylvania, the treatment, storage or disposal facility's authorized representative shall retain completed copies 1 and 4 of the manifest and return Part B of Copy 3 to the generator.

(ix) In the case of the interstate shipment of hazardous waste, the treatment, storage or disposal facility's authorized representative shall detach and distribute Part B of Copies 1, 2 and 3 of the manifest in the following manner:

(A) Treatment, storage or disposal facility's authorized representative shall forward Part B of Copy 1 of the manifest to the state in which the designated treatment, storage or disposal facility is located.

(B) Treatment, storage or disposal facility's authorized representative shall forward Part B of Copy 2 of the manifest to the state in which the installation generating the hazardous waste is located, and shall return Part B of Copy 3 of the manifest to the generator within 24 hours after the delivery of the shipment. The treatment, storage and disposal facility shall retain Copy 4 for its records.

(10) 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.

(i) Significant discrepancies in quantity are:

(A) for bulk waste, variations greater than 2.0 percent in weight; and

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

(ii) 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, or differences in physical form, color, odor, and the like.

(11) Upon discovering a significant discrepancy, the owner or operator shall reconcile the discrepancy with the waste generator or transporter before the waste is stored, treated, or disposed at the HWM facility. If the discrepancy is not resolved within three days after receiving the waste, the owner or operator shall immediately notify the Department by telephone and a letter describing the discrepancy and attempts to reconcile it, enclosing a copy of the manifest or shipping paper at issue.

(k) *Operating record.*

(1) The owner or operator of an on-site or off-site facility shall keep a written operating record at his facility.

(2) The following information shall be recorded, as it becomes available,

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and maintained in the operating record until closure of the facility:

(i) A description and the quantity of each hazardous waste received, and the methods and dates of its treatment, storage, or disposal at the facility as required by Appendix I of this section. The quarterly report form may be used to record this information.

(ii) 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 shall be recorded on a map or diagram of each cell or disposal area. For all facilities, this information shall include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest.

(iii) Records and results of waste analyses and trial tests performed as specified in subsection (c) of this section.

(iv) Summary reports and details of all incidents that require implementing the contingency plan as specified in subsection (i)(21) of this section.

(v) Records and results of inspections as required by § 75.265(e)(5) of this title.

(vi) For off-site facilities, notices to generators as specified in § 75.262(d) of this title (relating to generators of hazardous waste).

(1) *Availability, retention, and disposition of records.*

(1) All records, including plans, required under this section shall be furnished upon request, and made available at all reasonable times for inspection, by the Department.

(2) The retention period for records required under this section shall be extended automatically during the course of any enforcement action regarding the facility or as requested by the Department.

(3) A copy of records of waste disposal locations and quantities under subsection (k)(2)(ii) of this section shall be submitted to the Department and the local land authority upon closure of the facility or as otherwise prescribed by the Department.

(4) Reports, plans, and other documents retained at the facility which require Department approval shall be the most recently approved version of the reports, plans or other documents.

(m) *Quarterly facility report and additional reports.*

(1) The owner or operator of an on-

site or off-site facility shall submit quarterly reports:

(i) To the Department on a form designated by the Department. The form shall contain as a minimum the following information:

(A) The name, identification number, mailing address, and the location of the generator.

(B) The name and telephone number of generator's contact person.

(C) The identification and license number of each transporter.

(D) The name, identification number and address of each HWM facility.

(E) The description, Department of Transportation hazard class and hazardous waste number of the hazardous waste.

(F) The amount and units of measure of each hazardous waste in a shipment.

(G) The manifest document number for each hazardous waste.

(H) Signature and certification of the generator's authorized representative.

(I) The information required by clauses (C) — (G) of this subparagraph shall be provided for each shipment of hazardous waste and each waste stream within the shipment.

(ii) No later than the last day of the following month for the quarters: January through March due on or before April 30; April through June due on or before July 31; July through September due on or before October 31; October through December due on or before January 31.

(2) The owner or operator of an on-site or off-site facility shall report to the Department only emissions, discharges, fires, or explosions as required in subsection (i)(2) of this section.

Appendix I — Recordkeeping Instructions

The recordkeeping provisions of sub-

section (k) of this section specify that an owner or operator shall keep a written operating record at his facility. This appendix provides additional instructions for keeping portions of the operating record.

The following information shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility in the following manner:

Records of each hazardous waste received, treated, stored, or disposed of at the facility which include the following:

(1) A description by its common name and the hazardous waste numbers from § 75.261 of this title which apply to the waste. The waste description also shall include the waste's physical form, that is, liquid, sludge, solid, or contained gas. If the waste is not listed in § 75.261(d), the description also shall include the process that produced it for example, solid filter cake from the production of _____, Hazardous Waste Number W051.

Each hazardous waste listed in § 75.261 of this title and each hazardous waste characteristic defined in § 75.261 of this title has a four-digit hazardous waste number assigned to it. This number shall be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description shall include all applicable hazardous waste numbers.

(2) The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1 of this Appendix.

(3) The method — by handling codes as specified in Table 2 of this Appendix — and date of treatment, storage or disposal.

Table 1

Units of measure	Symbol*	Density
Pounds	P	
Short tons (2,000 lbs)	T	
Gallons (U. S.)	G	P/G
Cubic Yards	Y	T/Y
Kilograms	K	
Tonnes (1,000 kg)	M	
Liters	L	K/L
Cubic meters	C	M/C

*Single-digit symbols are used here for data processing purposes.

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Table 2 — Handling Codes for Treatment, Storage, and Disposal Methods

Enter the handling code listed below that most closely represents the technique used at the facility to treat, store, or dispose of each quantity of hazardous waste received.

(1) Storage		T41	Flocculation
S01	Container (barrel, drum, etc.)	T42	Flotation
S02	Tank	T43	Foaming
S03	Waste pile	T44	Sedimentation
S04	Surface impoundment	T45	Thickening
S05	Other (specify)	T46	Ultrafiltration
(2) Treatment		T47	Other (specify)
(a) Thermal Treatment		(ii) Removal of specific components	
T06	Liquid injection incinerator	T48	Absorption-molecular sieve
T07	Rotary kiln incinerator	T49	Activated carbon
T08	Fluidized bed incinerator	T50	Blending
T09	Multiple hearth incinerator	T51	Catalysis
T10	Infrared furnace incinerator	T52	Crystallization
T11	Molten salt destructor	T53	Dialysis
T12	Pyrolysis	T54	Distillation
T13	Wet air oxidation	T55	Electrodialysis
T14	Calcination	T56	Electrolysis
T15	Microwave discharge	T57	Evaporation
T16	Cement kiln	T58	High gradient magnetic separation
T17	Lime Kiln	T59	Leaching
T18	Other (specify)	T60	Liquid ion exchange
(b) Chemical Treatment		T61	Liquid-liquid extraction
T19	Absorption mound	T62	Reverse osmosis
T20	Absorption field	T63	Solvent recovery
T21	Chemical fixation	T64	Stripping
T22	Chemical oxidation	T65	Sand filter
T23	Chemical precipitation	T66	Other (specify)
T24	Chemical reduction	(d) Biological Treatment	
T25	Chlorination	T67	Activated sludge
T26	Chlorinolysis	T68	Aerobic lagoon
T27	Cyanide destruction	T69	Aerobic tank
T28	Degradation	T70	Anaerobic lagoon
T29	Detoxification	T71	Composting
T30	Ion exchange	T72	Septic tank
T31	Neutralization	T73	Spray irrigation
T32	Ozonation	T74	Thickening filter
T33	Photolysis	T75	Trickling filter
T34	Other (specify)	T76	Waste stabilization pond
(c) Physical Treatment		T77	Other (specify)
(i) Separation of components		T78-79	(Reserved)
T35	Centrifugation	(3) Disposal	
T36	Clarification	D80	Underground injection
T37	Coagulation	D81	Landfill
T38	Decanting	D82	Land treatment
T39	Encapsulation	D83	Ocean disposal
T40	Filtration	D84	Surface impoundment (to be closed as a landfill)
		D85	Other (specify)

§ 75.265. Interim status for hazardous waste management facilities and permit program for new and existing hazardous waste management facilities.

(a) Scope.

(1) This section establishes acceptable minimum standards for management of hazardous wastes as defined in § 75.261 of this title (relating to criteria, identification and listing of haz-

ardous waste) during the period of interim status and the permit program for new and existing hazardous waste management facilities.

(2) The standards of this section applies to any person or municipality who treats, stores or disposes of hazardous waste who has fully complied with the requirements for interim status until final administrative disposi-

tion of their permit application is made unless otherwise specified in this section or in § 75.261 of this title (relating to criteria, identification and listing of hazardous waste).

(3) The requirements of this section do not apply to the following:

(i) The owner or operator of a POTW which treats, stores or disposes of hazardous waste.

(ii) A person or municipality who owns or operates a facility permitted by the Department to manage municipal or residual solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under § 75.261(d) of this title (relating to criteria, identification and listing of hazardous waste) provided that:

(A) the facility receives written approval to accept such wastes from the Department in compliance with subsection (c) of this section; and

(B) the total hazardous wastes received at the facility during any quarter is less than one percent by weight or the total amount of nonhazardous wastes landfilled at the facility during the previous quarter.

(iii) The owner or operator of a facility which treats or stores hazardous waste, if such treatment or storage meets the criteria in § 75.261(e)(1) of this title (relating to criteria, identification and listing of hazardous waste) except to the extent that § 75.261(e)(2) of this title (relating to criteria, identification and listing of hazardous waste) provides otherwise.

(iv) A generator accumulating waste for less than 90 days onsite in compliance with § 75.262(g) of this title (relating to generators of hazardous waste).

(v) A farmer disposing of waste pesticides from his own use in compliance with § 75.262(n) of this title (relating to generators of hazardous waste).

(vi) The owner or operator of a totally enclosed treatment facility as defined in § 75.260 of this title (relating to definitions and requests for determinations).

(b) *Identification numbers.*

(1) Any person or municipality who owns or operates a hazardous waste management facility shall not accept hazardous waste for treatment, storage, or disposal without having received an identification number from the Department and shall not accept hazardous waste from a transporter who has not received an identification number and license, except as otherwise provided.

(2) An owner or operator of a hazardous waste management facility who has not received an identification number may obtain one by applying to the Department using the Notification Form. Upon receiving the request, the Department will assign an identification number to the owner or operator.

(3) An identification number received as a result of notification to

EPA pursuant to Section 3010 of the Resource Conservation and Recovery Act shall be deemed to satisfy the requirements of this section when furnished to the Department upon request.

(c) *General requirements for hazardous waste management approvals and analyses.*

(1) Before an owner or operator treats, stores or disposes of a specific hazardous waste from a specific generator for the first time, he shall submit to the Department for approval, on a form provided by the Department, a report which the owner or operator shall retain for 20 years, and which shall include the following information: a detailed chemical and physical analysis of the waste, a description of the waste and the process generating the waste, name and address of the HWM facility, description of the HWM facility's treatment, storage or disposal methods, result of liner capability testing, an assessment of the impact of the waste on the HWM facility, and any other information which the Department may prescribe in order for the Department to determine whether the waste will be treated, stored or disposed of in accordance with this section. The chemical and physical analysis of the waste shall be repeated under any of the following circumstances:

(i) when necessary to ensure that it is accurate and up-to-date;

(ii) when the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste has changed; and

(iii) when the results of the inspection or analysis or both of each hazardous waste for off-site facilities or on-site facilities receiving hazardous waste from off-site sources indicates that the waste received at the facility does not match the description of waste on the accompanying manifest or shipping paper.

(2) The owner or operator of an off-site facility or an on-site facility receiving hazardous waste from off-site sources shall inspect and, if necessary, analyze each hazardous waste received at the facility to determine whether it matches the identify of the waste specified on the accompanying manifest or shipping paper.

(3) The owner or operator shall develop and follow a written waste analysis plan which shall be submitted to the Department for approval at such time in the application process as the Department may prescribe. The plan

shall be retained at the facility. At a minimum, the plan shall specify:

(i) the parameters for which each hazardous waste will be analyzed and the rationale for the selection of these parameters;

(ii) the test methods which will be used to test for these parameters;

(iii) 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:

(A) one of the sampling methods described in Appendix I of § 75.261 of this title; or

(B) an equivalent sampling method approved by the Department.

(iv) the frequency with which the initial analysis of the waste will be received or repeated to ensure that the analysis is accurate and up-to-date;

(v) for off-site facilities or on-site facilities receiving hazardous waste from off-site sources, the waste analyses that the hazardous waste generators supply in accordance with the requirements of this subsection;

(vi) where applicable, the testing procedures which will be used to meet the additional waste analysis requirements for the following hazardous waste management methods: tanks, surface impoundments, waste piles, land treatment, landfills, incineration, thermal treatment, and chemical, physical, and biological treatment; and

(vii) for off-site facilities or on-site facilities receiving hazardous waste from off-site sources, the procedures which will be used to determine the identity of each hazardous waste managed at the facility and the sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.

(4) The owner or operator of a facility utilizing a liner shall conduct an evaluation of the liner compatibility with the hazardous waste before accepting such waste for emplacement in a waste pile, surface impoundment, or a landfill unless the approval to accept such a waste is granted in the permit. The evaluation procedure shall meet the approval of the Department prior to its commencement. The evaluation of the liner shall consist of testing the liner in the presence of the waste for a minimum of 30 days or as otherwise approved by the Department. In lieu of actual testing, existing published or documented data on the hazardous waste or waste generated from similar

processes proving the liner compatibility may be substituted if approved by the Department. The results of evaluation of the liner compatibility shall be furnished to the Department for approval of the waste before acceptance by the facility.

(d) *Security.*

(1) The owner or operator shall prevent unknowing entry, and minimize the possibility for unauthorized entry by persons or livestock onto the active portions of the facility, unless:

(i) 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 a facility; and

(ii) 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 section.

(2) Unless exempt under paragraph (1) of this subsection, a facility shall have:

(i) a 24-hour surveillance system which continuously monitors and controls entry onto the active portion of the facility; or

(ii) an artificial barrier which completely surrounds the active portion of the facility, and a means to control entry, at all times, through the gates or other entrances to the active portion of the facility. A natural barrier may be substituted if approved by the Department.

(iii) The requirements of paragraph (2)(i) and (ii) of this subsection shall be considered satisfied if the facility within which the active portion is located has a surveillance system or a barrier and a means to control entry in accordance with the requirements of paragraph (2)(i) and (ii) of this subsection.

(3) Unless exempt under paragraph (1) of this subsection, a sign with the legend, "Danger — Unauthorized Personnel Keep Out" shall 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 the active portion. The legend shall be written in English and legible from a distance of at least 25 feet. Existing signs with other legends may be used provided that the legend on the sign indicates that only authorized personnel are allowed to enter the active portion and entry onto the active portion can be dangerous.

(e) *General inspection and construction inspection requirements.*

(1) The owner or operator shall inspect his facility for malfunctions and deterioration, operator errors, and discharges which may cause or lead to an emission or discharge of hazardous waste constituents to the environment or a threat to human health. The owner or operator shall 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 shall develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices and operating and structural equipment that are important to preventing detecting or responding to environmental or human health hazards. This schedule shall be submitted to the Department for approval at such time in the application process as the Department may prescribe.

(i) The schedule shall be retained at the facility.

(ii) The schedule shall identify the types of problems which are to be looked for during the inspection.

(3) The frequency of the inspection 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, shall be inspected daily when in use. At a minimum, the inspection schedule shall include the items and frequencies called for in subsections (d), (r), (s), (t), (u), (v), (w), (x) and (y) of this section.

(4) The owner or operator shall remedy deterioration or malfunction of equipment or structures which the inspection reveals on a schedule that ensures the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately.

(5) The owner or operator shall record inspections in an inspection log or summary. He shall keep these records for the operating life of the facility. At a minimum, these records shall include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions. These records shall be furnished to the Department upon request.

(6) A schedule for construction of a HWM facility shall be submitted for approval to the Department. At a minimum, the schedule shall provide for Department inspection and approval of each phase of construction.

(f) *Personnel training.*

(1) Facility personnel shall 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 this section. The owner or operator shall ensure that this program includes as a minimum all the elements required under this subsection. This training program shall be outlined and submitted to the Department for approval at such time in the application process as the Department may prescribe.

(2) This program shall be directed by a person trained in hazardous waste management procedures, and shall 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 shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment systems including where applicable:

(i) procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) key parameters for automatic waste feed cut-off system;

(iii) communications or alarm systems;

(iv) response to fires or explosions;

(v) response to ground-water contamination incidents; and

(vi) shutdown of operations.

(4) Facility personnel shall successfully complete the program required in paragraph (1) of this subsection within six months after the effective date of this chapter 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 this chapter must not work in unsupervised positions until they have completed the training requirements of paragraph (1) of this subsection.

(5) Facility personnel shall participate in an annual review and evaluation of the elements of the initial train-

ing program required in paragraph (1) of this subsection.

(6) The owner or operator shall maintain the following documents and records at the facility which shall be furnished to the Department upon request:

(i) The job title for each position at the facility related to hazardous waste management, and the name of the employee holding each position.

(ii) A written job description for each position listed under paragraph (6)(i) of this subsection. 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 facility personnel assigned to each position.

(iii) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (6)(i) of this subsection.

(iv) Records that document that the training or job experience required under paragraphs (1), (2), (3), (4), and (5) of this subsection has been given to, and completed by, facility personnel.

(7) Training records on current personnel shall be retained until closure of the facility. Training records on former employees shall be retained for the operating life of the facility. Personnel training records may accompany personnel transferred within the same company.

(g) *General requirements for ignitable, reactive, or incompatible wastes.*

(1) The owner or operator shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. Such waste shall 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, and radiant heat. While ignitable or reactive waste is being handled, the owner or operator shall confine smoking and open flame to specially designated locations. "No Smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(2) Where specifically required by other subsections of this section, the treatment, storage, or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible

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wastes, or incompatible wastes and materials, shall be conducted so that they do not:

(i) generate extreme heat or pressure, fire or explosion, or violent reaction;

(ii) produce uncontrolled toxic mists, fumes, dusts or gases in sufficient quantities to threaten human health;

(iii) produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(iv) damage the structural integrity of the device or facility containing the waste; or

(v) through other like means threaten human health or the environment.

(h) *Preparedness and prevention.*

(1) Facilities shall be maintained and operated to minimize the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituents to air, soil, or surface water or ground water which could threaten human health or the environment.

(2) All facilities shall be equipped with the following, unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment in this paragraph:

(i) an internal communications or alarm system capable of providing immediate emergency instruction — voice or signal — to facility personnel;

(ii) 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;

(iii) 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

(iv) water at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers, or water spray systems.

(3) All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

(4) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in

the operation shall have immediate access to an on-site internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under paragraph (2) of this subsection.

(5) An employee working alone on the premises while the facility is operating shall 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 the Department has determined that such a device is not required under paragraph (2) of this subsection.

(6) The owner or operator shall 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.

(7) The owner or operator shall attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for services as follows:

(i) 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.

(ii) 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.

(iii) Agreements with State and local emergency response teams, emergency response contractors, and equipment suppliers.

(iv) 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.

(8) Where State or local authorities decline to enter into such arrangements, the owner or operator shall document the refusal in the operating record.

(i) *Contingency plan and emergency procedures.*

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(1) Each owner or operator shall be responsible for developing and implementing a contingency plan for effective action to minimize and abate hazards to human health and the environment from fire, explosion, emission or discharge of hazardous waste or hazardous waste constituents to air, soil, or surface water or ground water.

(2) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, emission or discharge of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(3) The contingency plan shall describe the actions facility personnel shall take to comply with paragraphs (1), (2), and (12) — (21) of this subsection in response to fire, explosion, emissions or discharges of hazardous waste or hazardous waste constituents to air, soil or surface water or ground water.

(4) The contingency plan and all revisions and amendments thereof shall be prepared and implemented in accordance with the Department guidelines and submitted to the Department for approval at such time in the application process as the Department may prescribe.

(5) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to subsection (h) of this section.

(6) The plan shall list names, addresses, and phone numbers — office and home — of all persons qualified to act as emergency coordinator and this list shall be kept up-to-date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.

(7) The plan shall include a list of all required emergency equipment at the facility. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(8) The plan shall include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe signals to be used to begin evacuation, evacuation routes, and alternate evacuation routes — in cases where the primary routes could be blocked by fire or emissions and discharges of hazardous waste.

(9) A copy of the contingency plan and all revisions to the plan shall be:

- (i) maintained at the facility; and
- (ii) submitted to all local police departments, fire departments, hospitals, and emergency response teams that may be called upon to provide emergency services.

(10) The contingency plan shall be reviewed, and immediately amended, if necessary, whenever:

- (i) applicable regulations are revised;
- (ii) the plan fails in an emergency;
- (iii) the facility changes, in its design, construction, operation, maintenance, or other circumstances, in a manner that materially increases the potential for fires, explosions, emissions or discharges of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
- (iv) the list of emergency coordinators changes; or
- (v) the list of emergency equipment changes.

(11) At all times, there shall be at least one employee either on the facility premises or on call with the responsibility for coordinating all emergency response measures. This emergency coordinator shall 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 shall have the authority to commit the resources needed to carry out the contingency plan.

(12) Whenever there is an imminent or actual emergency situation, the emergency coordinator shall immediately:

- (i) activate facility alarms or communication systems, where applicable, to notify all facility personnel; and
- (ii) notify local agencies with designated response roles if their help is needed.

(13) Whenever there is an emission or discharge, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of emitted or discharged materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

(14) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environ-

ment that may result from the emission or discharge, fire, or explosion. This assessment shall consider both direct and indirect effects of the emission, discharge, fire, or explosion.

(15) If the emergency coordinator determines that the facility has had an emission, discharge, fire, or explosion which could threaten human health, or the environment, he shall report his findings as follows:

(i) If his assessment indicates that evacuation of local areas may be advisable, he shall immediately notify appropriate local authorities. He shall be available to help appropriate officials decide whether local areas should be evacuated.

(ii) He shall immediately notify the Department by telephone at 717-787-4343 and the National Response Center at 800-424-8802. The report shall include:

(A) name of the person reporting the incident;

(B) name, address and identification number of facility;

(C) phone number where the person reporting the spill can be reached;

(D) date, time and location of the incident;

(E) a brief description of the incident including type of incident, nature of hazardous material involvement and possible hazards to human health or the environment outside the facility;

(F) the extent of injuries, if any; and

(G) for each waste involved in the incident, the shipping name, hazard class, U. N. number of the waste and quantity of the waste involved.

(16) During an emergency, the emergency coordinator shall take all reasonable measures necessary to ensure that fire, explosion, and emission and discharge do not occur, recur, or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

(17) If the facility stops operations in response to a fire, explosion, emission or discharge, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(18) Immediately after an emergency, the emergency coordinator shall with Department approval provide, for treating, storing, or disposing of re-

covered waste, contaminated soil or surface water, or other material that results from an emission, discharge, fire or explosion at the facility.

(19) The emergency coordinator shall ensure that, in the affected areas of the facility:

(i) No waste that may be incompatible with the emitted or discharged material is treated, stored, or disposed of until cleanup procedures are completed; and

(ii) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(20) The owner or operator shall notify the Department and the appropriate State or local authorities, that the facility is in compliance with paragraph (19) of this subsection before operations are resumed in the affected areas of the facility.

(21) The owner or operator shall note in the operating record the time, date, and details of an incident that requires implementing the contingency plan. Within 15 days after the incident, he shall submit a written report on the incident to the Department. The report shall include the following:

(i) name, address, and telephone number of the owner or operator;

(ii) name, address, and telephone number of the facility;

(iii) date, time and type of incident;

(iv) name and quantity of materials involved;

(v) the extent of injuries, if any;

(vi) an assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(vii) estimated quantity and disposition of recovered material that resulted from the incident.

(j) *Manifest system and discrepancy reporting.*

(1) Requirements under this section apply to owners and operators of off-site facilities and on-site facilities receiving hazardous waste from off-site sources, except as otherwise provided in this section.

(2) General requirements for a manifest shall consist of the following:

(i) A generator who transports or offers for transportation a shipment of hazardous waste to an off-site treatment, storage or disposal facility shall

complete a manifest before the waste is transported off-site.

(ii) For all hazardous waste shipments designated for off-site treatment, storage, or disposal within this Commonwealth, the generator shall use the manifest forms provided by the Department and shall complete and distribute such manifest forms according to the instructions specified on the manifest.

(iii) For all hazardous waste shipments generated in this Commonwealth and designated for treatment, storage or disposal outside this Commonwealth, the generator shall use the EPA authorized disposer state manifest form or format, or a manifest form meeting the minimum EPA requirements.

(iv) A generator shall designate on the manifest one facility which is permitted to manage the waste described on the manifest.

(v) The Department manifest shall require the following information as a minimum:

(A) A unique manifest document number.

(B) The names, site addresses, telephone numbers and identification numbers of the generator, transporter and treatment, storage or disposal facility.

(C) The proper United States Department of Transportation shipping name, United States Department of Transportation hazard class, and U. N. number of the waste as outlined in the United States Department of Transportation 49 C.F.R. §§ 172.101, 172.202 and 172.203.

(D) The physical form — solid, liquid or gas — the total quantity of each hazardous waste by units of weight or volume, and the type and number of containers.

(E) A certification equivalent to the following: "This is to certify that the above named materials are properly classified, described, packaged, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U. S. EPA, and the State. The wastes described were consigned to the transporter named. The treatment, storage or disposal (TSD) facility can and will accept the shipment, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge."

(3) The hazardous waste manifest

shall consist of six copies, with Copies 1, 2 and 3 detaching into two parts, A and B. The manifest form shall be completed and routed as follows, except that manifests for bulk shipments transported by rail or water shall be completed and routed according to scheme set forth in subsection (j)(9) of this section.

(i) The generator shall complete Part A of all copies of the manifest. The generator shall instruct the initial transporters' authorized representative to sign, date, and certify the receipt of the shipment.

(ii) For shipments of hazardous waste generated within the Commonwealth of Pennsylvania and to be disposed of within this Commonwealth of Pennsylvania, the generator shall retain a complete Copy 2 of the manifest and Part A of Copy 3 for his records.

(iii) In the case of an interstate shipment of hazardous waste, the generator shall detach Part A of Copies 1, 2 and 3, distribute Part A of Copy 1 to the disposer state, Part A of Copy 2 to the generator state, and retain Part A of Copy 3 for his records.

(iv) The transporters' authorized representative shall carry the remaining copies of the manifest along with the shipment.

(v) Upon delivery of the shipment to the designated treatment, storage or disposal facility, or to transporter number two, transporter number one shall sign and date and certify delivery of the shipment, obtain the signature, date of receipt of shipment, and certification of the treatment, storage or disposal facility's authorized representative or the authorized representative of transporter number two and detach and retain Copy 5 of the manifest.

(vi) Upon delivery of the shipment to the designated treatment, storage or disposal facility by transporter number two, transporter number two shall sign and date and certify the delivery of shipment, obtain the signature, date of receipt of shipment, and certification of the treatment, storage or disposal facility's authorized representative and detach and retain Copy 6 of the manifest.

(vii) For shipments within the Commonwealth of Pennsylvania, the treatment, storage, or disposal facility's authorized representative shall retain complete Copies 1 and 4 of the manifest and return Part B of Copy 3 to the generator.

(viii) In the case of the interstate shipment of hazardous waste, the

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treatment, storage, or disposal facility's authorized representative shall detach and distribute Part B of Copies 1, 2, and 3 of the manifest in the following manner:

(A) Treatment, storage or disposal facility's authorized representative shall forward Part B of Copy 1 of the manifest to the state in which the designated treatment, storage, or disposal facility is located.

(B) Treatment, storage, or disposal facility's authorized representative shall forward Part B of Copy 2 of the manifest to the state in which the installation generating the hazardous waste is located and shall return Part B of Copy 3 of the manifest to the generator within 24 hours after the delivery of the shipment. The treatment, storage or disposal facility shall retain Copy 4 for its records.

(4) Each manifest form shall record a maximum of two transporters. If more than two transporters are to be utilized, the generator shall complete additional manifest forms and reference the first manifest document number on such additional manifest forms.

(5) If more than four hazardous wastes from the same generator are to be shipped in the same shipment, the generator shall complete additional manifests for each group of four or less hazardous wastes.

(6) Copies of the manifest retained by the generator and the treatment, storage or disposal facility shall be furnished to the Department upon request.

(7) Note any significant discrepancies in subsection (j)(10) of this section on each copy of the manifest.

(8) Retain at the facility a copy of each manifest for at least 20 years from the date of delivery.

(9) For bulk shipment of hazardous waste designated for treatment, storage or disposal within this Commonwealth solely by railroad or water, the manifest shall be completed and routed as follows:

(i) The generator shall complete Part A of all copies of the manifest. The generator shall instruct the initial transporter's authorized representative to sign and date and certify the receipt of the shipment.

(ii) For shipments of hazardous waste generated within the Commonwealth of Pennsylvania and to be disposed of within the Commonwealth of Pennsylvania, the generator shall retain a complete Copy 2 of the manifest and Part A of Copy 3 for his records.

(iii) In the case of an interstate shipment of hazardous waste, the generator shall detach Part A of copies 1, 2 and 3, distribute Part A of Copy 1 to the disposer state, Part A of Copy 2 to the generator state, and retain part A of Copy 3 for his records.

(iv) The generator or the initial transporter delivering a shipment of hazardous waste to the rail or water transporter shall obtain the signature and date of receipt of shipment and certification of the rail or water transporter on the manifest and forward the remaining copies of the manifest, except those for additional transporters, to the designated treatment, storage or disposal facility. Each transporter other than the rail or water transporter shall retain his copy of the manifest for his records.

(v) The rail or water transporter shall carry either his copy of the manifest or the shipping paper containing all the information required on the manifest in subsection (j)(2)(v) of this section except the identification numbers, generator's certification and signatures along with the shipment.

(vi) The delivering rail or water transporter shall obtain the signature, date of receipt of shipment, and certification of the authorized representative of the treatment, storage or disposal facility on either the manifest or the shipping paper.

(vii) The designated treatment, storage or disposal facility's authorized representative shall sign and date and certify the acceptance of the shipment on the manifest forwarded by the generator or initial transporter and shall obtain the signature, date of delivery of shipment, and certification of the rail or water transporter.

(viii) For shipments within the Commonwealth of Pennsylvania, the treatment, storage or disposal facility's authorized representative shall retain completed copies 1 and 4 of the manifest and return Part B of Copy 3 to the generator.

(ix) In the case of the interstate shipment of hazardous waste, the treatment, storage or disposal facility's authorized representative shall detach and distribute Part B of copies 1, 2 and 3 of the manifest in the following manner:

(A) Treatment, storage or disposal facility's authorized representative shall forward Copy 1 of the manifest to the state in which the designated treatment, storage or disposal facility is located.

(B) Treatment, storage or disposal

facility's authorized representative shall forward Part B of Copy 2 of the manifest to the state in which the installation generating the hazardous waste is located, and shall return Part B of Copy 3 of the manifest to the generator within 24 hours after the delivery of the shipment. The treatment, storage and disposal facility shall retain Copy 4 for its records.

(10) 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.

(i) Significant discrepancies in quantity are:

(A) for bulk waste, variations greater than 2.0% in weight; or

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

(ii) 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, physical form, color, odor and the like.

(11) Upon discovering a significant discrepancy, the owner or operator shall reconcile the discrepancy with the waste generator or transporter before the waste is stored, treated or disposed by the HWM facility. If the discrepancy is not resolved within 3 days after receiving the waste, the owner or operator shall immediately notify the Department by telephone and a letter describing the discrepancy and attempts to reconcile it, enclosing a copy of the manifest or shipping paper at issue.

(k) *Operating record.*

(1) The owner or operator of an on-site or off-site facility shall keep a written operating record at his facility.

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

(i) A description and the quantity of each hazardous waste received, and the methods and dates of its treatment, storage, or disposal at the facility as required by Appendix I of this section. The Quarterly Report form may be used to record this information.

(ii) The location of each hazardous waste within the facility and the quantity at each location. For disposal fa-

cilities, the location and quantity of each hazardous waste shall be recorded on a map or diagram of each cell or disposal area. For all facilities, this information shall include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest.

(iii) Records and results of waste analyses and trial tests performed as specified in the following subsections in this section: (c), (r), (s), (t), (u), (v), (w), (x), and (y).

(iv) Summary reports and details of all incidents that require implementing and contingency plan as specified in subsection (i)(21) of this section.

(v) Records and results of inspections as required by subsection (e)(5) of this section.

(vi) Monitoring, testing, or analytical data where required by the following subsections in this section: (n), (u), (w), and (x).

(vii) All closure cost estimates and for disposal facilities all post-closure cost estimates under financial subsection (p) in this section.

(l) *Availability, retention, and disposition of records.*

(1) All records, including plans, required under this section shall be furnished upon request, and made available at all reasonable times for inspection, by the Department.

(2) The retention period for all records required under this section shall be extended automatically during the course of any enforcement action regarding the facility or as requested by the Department.

(3) A copy of records of waste disposal locations and quantities under subsection (k)(2)(ii) of this section, shall be submitted to the Department and the local land authority upon closure of the facility or as otherwise prescribed by the Department.

(4) The reports, plans, outlines and any other documents retained at a facility which require the Department's approval shall be replaced by the most recently approved copy of the reports, plans and documents.

(m) *Quarterly facility report and additional reports.*

(1) The owner or operator of an on-site or off-site facility shall submit quarterly reports:

(i) To the Department on a form designated by the Department. The form shall contain as a minimum the following information:

(A) The name, identification num-

ber, mailing address, and the location of the generator.

(B) The name and telephone number of generator's contact person.

(C) The identification and license number of each transporter.

(D) The name, identification number and address of the HWM facility.

(E) The description, Department of Transportation hazard class and hazardous waste number and date of treatment storage or disposal of the hazardous waste.

(F) The amount and units of measure of each hazardous waste in a shipment.

(G) The manifest document number for each hazardous waste.

(H) Signature and certification of the HWM's authorized representative.

(I) The information required by clauses (C), (D), (E), (F) and (G) of this subparagraph shall be provided for each shipment of hazardous waste and each waste stream within the shipment.

(ii) No later than the last day of the following month for the quarters: January through March due on or before April 30; April through June due on or before July 31; July through September due on or before October 31; October through December due on or before January 31.

(2) The owner or operator of an on-site or off-site facility shall report to the Department:

(i) Emissions, discharges, fires, and explosions as required in subsection (i)(21) of this section.

(ii) Ground-water contamination and monitoring data as required in subsection (n) of this section.

(iii) Facility closure as required in subsection (o) of this section.

(n) *Ground-water monitoring.*

(1) Within one year after the effective date of this section, the owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste shall implement a ground-water monitoring program capable of determining the facility's impact on the quality of any ground water system which the facility has the potential for affecting or as otherwise deemed necessary by the Department.

(2) The owner or operator shall install, operate, and maintain a ground-water monitoring system which meets the requirements of paragraphs (4) — (7) of this subsection and shall comply

with paragraphs (8) — (20) of this subsection. This ground-water monitoring program shall be carried out during the active life of the facility, and for disposal facilities, during the post-closure care period.

(3) If an owner or operator determines that ground-water monitoring of indicator parameters in accordance with paragraphs (4) — (13) of this subsection shows statistically significant increases — or decreases of pH — when evaluated under paragraph (15) of this subsection, he shall install, operate, and maintain an alternate ground-water monitoring system if required by the Department. The owner or operator shall:

(i) submit to the Department a specific plan, certified by a qualified geologist or geo-technical engineer, which satisfies the requirements of paragraph (16)(ii) of this subsection for an alternate ground-water monitoring system;

(ii) not later than one year after the effective date of this section, initiate the determinations specified in paragraph (16)(iii) of this subsection;

(iii) prepare and submit a written report in accordance with paragraph (16)(iv) of this subsection;

(iv) continue to make the determinations specified in paragraph (16)(iii) of this subsection on a quarterly basis until final closure of the facility;

(v) comply with the recordkeeping and reporting requirements in paragraph (20) of this subsection; and

(vi) prepare a ground-water contamination abatement plan.

(4) A ground-water monitoring system shall be capable of yielding ground-water samples for analysis and shall consist of the following:

(i) At least one monitoring well installed hydraulically upgradient, that is, in the direction of increasing static head, from the limit of the waste management area. Their number, locations, and depths shall be sufficient to yield ground-water samples that are:

(A) representative of background ground-water quality; and

(B) not affected by the facility.

(ii) At least three monitoring wells installed hydraulically downgradient, that is, in the direction of decreasing static head, at the limit of the waste management area. Their number, locations, and depths shall 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 ground water.

(iii) The locations of the monitoring wells shall be approved by the Department before they are constructed.

(5) 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 a discharge from the waste management area.

(i) 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 or perimeter.

(ii) 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.

(6) All monitoring wells shall be cased in a manner that maintains the integrity of the monitoring well borehole. This casing shall 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 above the sampling depth shall be sealed with a suitable material to prevent contamination of samples and the ground water.

(7) All monitoring wells shall be protected from damage through the use of heavy equipment in the normal operations of the facility and from vandals. The protective installation shall include:

(i) A length of steel casing several inches larger in diameter and height than the monitoring well and at least ten feet in length, installed around the monitoring well. The height of this steel casing shall be at a minimum one foot above final grade and at least several inches above the monitoring well. This length of steel casing shall be grouted and placed with a cement collar at least three feet deep to hold it firmly in position. The casing shall be painted a highly visible color and be numbered.

(ii) A cap on the casing which will allow the well to be locked and secured from any act of vandalism.

(8) The owner or operator shall obtain and analyze samples from the installed ground-water monitoring system. The owner or operator shall develop and follow a ground-water sampling and analysis plan which shall be submitted to the Department for approval

at such time in the application process as the Department may prescribe which shall be retained at the facility for the life of the facility. The plan shall include procedures and techniques for the following:

(i) Sample collection.

(ii) Sample preservation and shipment.

(iii) Analytical procedures.

(iv) Chain of custody control.

(9) The owner or operator at a minimum shall determine the concentration or value of the following parameters in ground-water samples in accordance with paragraphs (10) — (12) of this subsection:

(i) Parameters characterizing the suitability of the ground water as a drinking water supply, as specified in Appendix II.

(ii) Parameters establishing ground-water quality:

(A) Chloride.

(B) Iron.

(C) Manganese.

(D) Phenols.

(E) Sodium.

(F) Sulfate.

(G) Additional parameters as required by the Department.

(iii) Parameters used as indicators of ground-water contamination:

(A) pH.

(B) Specific Conductance.

(C) Total Organic Carbon.

(D) Total Organic Halogen.

(E) Total Dissolved Solids.

(F) Additional parameters as required by the Department.

(10) For all monitoring wells, the owner or operator shall establish initial background concentrations or values of all parameters specified in paragraph (9) of this subsection quarterly for one year.

(11) For each upgradient monitoring well, each of the indicator parameters specified in paragraph (9)(iii) of this subsection shall have at least four replicate measurements obtained for each sample. The initial background arithmetic mean and variance shall be determined by pooling these replicate measurements obtained during the first year.

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

(1) Samples collected to establish ground-water quality shall be obtained and analyzed for the parameters specified in paragraph (9)(ii) of this subsection at least semi-annually and sent to the Department.

(ii) Samples collected to indicate ground-water contamination shall be obtained and analyzed for the parameters specified in paragraph (9)(iii) of this subsection at least quarterly and results submitted to the Department.

(13) Elevation of the ground-water surface at each monitoring well shall be determined and submitted to the Department each time a sample is obtained.

(14) Within one year after the effective date of this section, the owner or operator shall prepare and submit to the Department for approval an outline of a ground-water quality assessment and abatement program. The outline shall be retained at the facility throughout the life and post-closure period of the facility and shall describe a more comprehensive ground-water monitoring program capable of the following:

(i) Determining which hazardous waste or hazardous waste constituents have entered the ground water.

(ii) Determining the rate and extent of migration of hazardous waste or hazardous waste constituents in the ground water.

(iii) Determining the concentrations of hazardous waste or hazardous waste constituents in the ground water.

(iv) Abating any ground-water contamination attributable to the hazardous waste management facility.

(15) For each indicator parameter specified in paragraph (9)(iii) of this subsection, the owner or operator shall calculate the arithmetic mean variance, based on at least four replicate measurements on each sample, for each well monitored in accordance with paragraph (12)(ii) of this subsection and compare these results with its initial background arithmetic mean. The comparison shall consider individually each of the wells in the monitoring system, and shall use the Student's t-test at the 0.01 level of significance — see Appendix III of this section — to determine statistically significant increases and decreases of pH over initial background.

(i) If the comparisons for upgradient well under paragraph (15) of this subsection show a significant increase or pH decrease, the owner or operator shall submit this information in ac-

cordance with paragraph (19)(ii)(B) of this subsection.

(ii) If the comparisons for down-gradient wells made under this paragraph (15) of this subsection show a significant increase or pH decrease, the owner or operator shall then immediately obtain additional ground-water samples from those down-gradient wells where a significant difference was detected, split the samples in two, and obtain analyses of all additional samples to determine whether the significant difference was a result of laboratory error.

(16) If the analyses performed under paragraph (15)(ii) of this subsection confirm the significant increase — or pH decrease — the owner or operator shall provide written notice to the Department within seven days of the date of such confirmation that the facility may be affecting ground-water quality.

(i) Within 15 days after the notification under paragraph (16) of this subsection the owner or operator shall develop and submit to the Department for approval a specific plan, based on the outline required under paragraph (14) of this subsection and certified by a qualified geologist or geotechnical engineer, for a ground-water quality assessment and abatement program at the facility.

(ii) The plan to be submitted shall specify the following:

(A) The number, location, size and depth of wells.

(B) Sampling and analytical methods for those hazardous wastes or constituents in the facility.

(C) Evaluation procedures including any use of previously gathered ground-water quality information.

(D) Abatement procedures.

(E) A schedule of implementation.

(iii) The owner or operator shall implement the ground-water quality assessment plan which satisfies the requirements of paragraph (16)(ii) of this subsection and, at a minimum, determine the following:

(A) The rate and extent of migration of the hazardous waste or hazardous waste constituents in the ground water.

(B) The concentrations of the hazardous waste or hazardous waste constituents in the ground water.

(iv) The owner or operator shall make his first determination under paragraph (16)(iii) of this subsection as soon as technically feasible, and, with-

in 15 days after that determination, submit to the Department a written report containing an assessment of the ground-water quality.

(v) If the owner or operator determines, based on the results of the first determination under paragraph (16)(iii) of this subsection that no hazardous waste or hazardous waste constituents from the facility have entered the ground water, then he may reinstate the indicator evaluation program described in paragraphs (8) — (13) and (15) of this subsection. If the owner or operator reinstates the indicator evaluation program, he shall so notify the Department in the report submitted under paragraph (16)(iv) of this subsection.

(vi) If the owner or operator determines, based on the first determination under paragraph (16)(iii) of this subsection that hazardous waste or hazardous waste constituents from the facility have entered the ground water, then he:

(A) Shall continue to make the determinations required under paragraph (16)(iii) of this subsection on a quarterly basis until final closure of the facility, if the ground-water quality assessment plan was implemented prior to final closure of the facility; or

(B) May cease to make the determinations required under paragraph (16)(iii) of this subsection if the ground-water quality assessment plan was implemented during the post-closure care period.

(C) Shall submit to the Department the abatement plan for approval to be used to abate any ground-water contamination.

(17) Notwithstanding any other provision of this subsection, a ground-water quality assessment to satisfy the requirements of paragraph (16)(iii) of this subsection which is initiated prior to final closure of the facility shall be completed and reported in accordance with paragraph (16)(iv) of this subsection.

(18) Unless the ground-water is monitored to satisfy the requirements of paragraph (16)(iii) of this subsection at least annually by January 31, the owner or operator shall evaluate the data on ground-water surface elevations obtained under paragraph (13) of this subsection to determine whether the requirements under paragraph (4) of this subsection for locating the monitoring wells continues to be satisfied. If the evaluation shows that paragraph (4) of this subsection is no longer satisfied or the Department deter-

mines that paragraph (4) of this subsection is no longer satisfied, the owner or operator shall immediately modify the number, location, or depth of the monitoring wells to bring the ground-water monitoring system into compliance with this requirement. These changes shall be approved by the Department before any construction begins.

(19) Unless the ground-water is monitored to satisfy the requirements of paragraph (16)(iii) of this subsection, the owner or operator shall:

(i) keep records of the analyses required in paragraph (10) through (12) of this subsection, the associated ground-water surface elevations required in paragraph (13) of this subsection, and the evaluations required in paragraph (15) of this subsection throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(ii) report the following ground-water monitoring information to the Department.

(A) During the first year when initial background concentrations are being established for the facility: measurements of the parameters listed in paragraph (9)(i) of this subsection, for each ground-water monitoring well within 15 days after completing each quarterly analysis. The owner or operator shall separately identify for each monitoring well any parameters whose measurements were found to exceed the maximum contaminant levels listed in Appendix II of this section.

(B) Semi Annually: measurements of the parameters listed in paragraph (9)(ii) of this subsection, for each ground-water monitoring well. The owner or operator shall separately identify any significant differences from initial background found in the wells. During the active life of the facility, this information shall be submitted as part of the report required under subsection (m) of this section.

(C) Quarterly: measurements of the parameters listed in paragraph (9)(iii) of this subsection, for each ground-water monitoring well, along with the required evaluations for these parameters under paragraph (15) of this subsection. The owner or operator shall separately identify any significant differences from initial background found in the upgradient wells, in accordance with paragraph (15)(i) of this subsection. During the active life of the facility, this information shall be submitted as part of the report required under subsection (m) of this section.

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(D) As a part of the quarterly report required under subsection (m) of this section, results of the evaluation of ground-water surface elevations under paragraph (18) of this subsection, and a description of the response to that evaluation, where applicable.

(20) If the ground-water is monitored to satisfy the requirements of paragraph (16)(iii) of this subsection, the owner or operator shall:

(i) submit to the Department quarterly and keep records of the analyses and evaluations specified in the plan, which satisfies the requirements of paragraph (16)(ii) of this subsection throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(ii) annually, until final closure of the facility, submit to the Department by January 31, a report containing the results of his ground-water quality assessment program which includes, but is not limited to, the measured rate of migration of hazardous waste or hazardous waste constituents in the ground-water during the reporting period and volumes of hazardous waste or hazardous waste constituents removed from the ground-water using the abatement procedures specified in paragraph (16)(vi) of this subsection.

(o) Closure and post-closure.

(1) Except as otherwise provided in subsection (a) of this section, paragraphs (2) — (9) and (19) of this subsection applies to owners and operators of all hazardous waste facilities, and paragraphs (10) — (18) of this subsection applies to owners and operators of all disposal facilities.

(2) The owner or operator shall close his facility in a manner that minimizes the need for further maintenance, and 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 ground water, or surface waters, or to the atmosphere.

(3) On the effective date of this section, the owner or operator shall have a written closure plan, which shall be retained at the facility. This plan shall identify the steps necessary to completely close the facility at any point during its intended life and at the end of its intended life. This plan shall be submitted to the Department for approval at such time in the application process as the Department may pre-

scribe. The closure plan shall include, at least the following:

(i) A description of how and when the facility will be partially closed, if applicable, and ultimately closed. The description shall identify the maximum extent of the operation which will be unclosed during the life of the facility, and how the requirements of paragraph (1) of this subsection and applicable closure requirements under the following subsections: (r), (s), (t), (u), (v), (w), (x) and (y) of this section will be met.

(ii) An estimate of the maximum inventory of wastes in storage or 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) A schedule for final closure, which shall include, as a minimum, the anticipated date when wastes will no longer be received, the date when completion of final closure is anticipated, and intervening milestone dates which will allow tracking of the progress of closure.

(4) 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. The owner or operator shall amend his plan any time changes in operating plans or facility design affect the closure plan.

(5) The owner or operator shall submit his closure plan to the Department at least 180 days before the date he expects to begin closure. The Department may modify, approve, or disapprove the plan within 90 days of receipt and after providing the owner or operator and the affected public the opportunity to submit written comments. If an owner or operator plans to begin closure within 180 days after the effective date of this section, he shall submit the necessary plans on the effective date of this section.

(6) Within 90 days after receiving the final volume of hazardous wastes, the owner or operator shall treat all hazardous wastes in storage or in treatment, or remove them from the site, or dispose of them on-site, in accordance with the approved closure plan. The owner or operator of a facility shall not accept hazardous waste which is not included in the closure plan without first obtaining the written approval of the Department.

(7) The owner or operator shall com-

plete closure activities within six months after receiving departmental approval of the closure plan. The Department may approve a longer closure period if the owner or operator can demonstrate that the required or planned closure activities will, of necessity, take him longer than six months to complete, and that he has taken all steps to eliminate any significant threat to human health and the environment from the unclosed but inactive facility.

(8) When closure is complete, all facility equipment and structures shall be properly disposed of, or decontaminated by removing all hazardous waste and residues.

(9) When closure is completed, the owner or operator shall submit to the Department 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.

(10) Post-closure care shall consist of at a minimum:

(i) ground-water monitoring and reporting in accordance with the requirements of subsection (n) of this section; and

(ii) maintenance of monitoring and waste containment systems as specified in subsections (n), (s), (u) and (v) of this section, where applicable.

(11) The Department may require maintenance of any or all of the security requirements of subsection (d) of this section, during the post-closure period, when:

(i) wastes may remain exposed after completion of closure; or

(ii) short term, incidental access by the public or domestic livestock may pose a hazard to human health.

(12) Post-closure use of property on or in which hazardous waste remains after closure shall never be allowed to disturb the integrity of the final cover, liners, or any other components of any containment system, or the function of the facility's monitoring systems, unless the owner or operator can demonstrate to the Department in the post closure plan that the disturbance;

(i) is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(ii) is necessary to reduce a threat to human health or the environment.

(13) The owner or operator of a dis-

posal facility shall provide post-closure care in accordance with the approved post-closure plan for at least 30 years after the date of completing closure. However, the owner or operator may request the Department to allow some or all of the requirements for post-closure care to be discontinued or altered prior to the end of the thirty year period. The request shall include evidence demonstrating the secure nature of the facility that makes continuing the specified post-closure requirements unnecessary. Alternately, the Department may require the owner or operator to continue one or more of the post-closure care and maintenance requirements contained in the facility's post closure plan for a specified period of time. The Department may do this if he finds there has been noncompliance with any applicable standards or requirements, or that such continuation is necessary to protect human health or the environment. At the end of the specified period of time, the Department will determine whether to continue or terminate post-closure care and maintenance at the facility. A person or municipality may request the Department for an extension or reduction of the post-closure care period based on cause. These requests shall be considered by the Department at the time the post-closure plan is submitted and at five year intervals after the completion of closure.

(14) On the effective date of this section, the owner or operator of a disposal facility shall have a written post-closure plan which shall be submitted to the Department for approval as the Department may prescribe. He shall keep this plan at the facility. This plan shall identify the activities which will be carried on after final closure and the frequency of those activities. The post-closure plan shall include at least:

(i) ground-water monitoring activities and frequencies as specified in subsection (n) of this section for the post-closure period; and

(ii) maintenance activities and frequencies to ensure the integrity of the cap and final cover or other containment structures as specified in subsections (s), (u) and (v) of this section, where applicable, and the function of the facility's monitoring equipment as specified in subsection (n) of this section.

(15) 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. The owner or operator shall amend his plan any time changes in operating plans or facility design affect his post-closure plan.

(16) The owner or operator of a disposal facility shall submit an updated post-closure plan to the Department at least 180 days before the date he expects to begin closure. The Department may modify or approve the plan within 90 days of receipt and after providing the owner or operator and the affected person or municipality the opportunity to submit written comments. The plan may be modified to include security equipment maintenance under paragraph (11) of this subsection. If an owner or operator of a disposal facility plans to begin closure within 180 days after the effective date of this section, he shall submit the necessary plans on the effective date of this chapter. Any amendments to the plan under paragraph (15) of this subsection which occur after approval of the plan shall also be approved by the Department before they may be implemented.

(17) Within 90 days after closure is completed, the owner or operator of a disposal facility shall submit to the municipality in which the facility is located and to the Department a survey plat indicating the location and dimensions of landfill cells or other disposal areas with respect to permanently surveyed benchmarks. This plat shall be prepared and certified by a professional land surveyor, licensed to practice in the Commonwealth. The plat filed with such a municipality shall contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the site as specified in paragraph (12) of this subsection. In addition, the owner or operator shall submit to the Department and to the municipality 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 this chapter was promulgated, the owner or operator shall identify the type, location, and quantity of the wastes to the best of his knowledge and in accordance with any records he has kept.

(18) The grantor in every deed for the conveyance of property on which hazardous waste is presently being disposed, or has ever been disposed by the grantor or to the grantor's actual knowledge, shall include in property description of such deed an acknowledgement of such hazardous waste disposal and that the use of such property is restricted under paragraph (12) of this subsection. Such acknowledgement is to include, but not be limited to, the surface area size and exact location of the disposed waste and a description of the types of hazardous waste contained therein. Such amended property descriptions shall

be made a part of the deed for all future conveyances or transfers of the subject property. The warranty in such deed shall not be applicable to the surface area size and exact location of the disposed waste and a description of the types of hazardous waste contained therein.

(19) 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 shall notify the owner or operator in writing of the requirements of this section. An owner's or operator's failure to notify the new owner or operator of the requirements of this section in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.

(p) *Financial requirements.*

(1) Paragraph (2) of this subsection applies to owners and operators of all hazardous waste facilities except as otherwise provided in subsection (a) of this section. Paragraph (5) of this subsection applies only to owners and operators of disposal facilities. States and the Federal Government are exempt from the requirements of this subsection.

(2) On the effective date of this section, each facility owner or operator shall have a written estimate of the cost of closing the facility. The owner or operator shall keep this estimate, and all subsequent estimates required in this subsection at the facility. The estimate shall equal the cost of closure at the point in the facility's operating life when the extent and manner of its operation would make closure to the most expensive, as indicated by its closure plan.

(3) The owner or operator shall prepare a new closure cost estimate whenever a change in the closure plan affects the cost of closure.

(4) On each anniversary of the effective date of this section, the owner or operator shall adjust the latest closure cost estimate using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its Survey of Current Business. The inflation factor shall be calculated by dividing the latest published annual Deflator by the Deflator for the previous year. The result is the inflation factor. The adjusted closure cost estimate shall equal the latest closure cost estimate times the inflation factor.

(5) On the effective date of this section, the owner or operator of a disposal facility shall have a written esti-

mate of the annual cost of post-closure monitoring and maintenance of the facility. The owner or operator shall keep this estimate, and all subsequent estimates required in this subsection at the facility.

(6) The owner or operator shall prepare a new annual post-closure cost estimate whenever a change in the post-closure plan affects the cost of post-closure care. The latest post-closure cost estimate is calculated by multiplying the latest annual post-closure cost estimate by 30.

(7) On each anniversary of the effective date of this section, during the operating life of the facility, the owner or operator shall adjust the latest post-closure cost estimate using the inflation factor calculated in accordance with paragraph (4) of this subsection. The adjusted post-closure cost estimate shall equal the latest post-closure cost estimate times the inflation factor.

(g) Use and management of containers.

(1) If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator shall transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with this section.

(2) The owner or operator shall 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.

(3) A container holding hazardous waste shall always be closed during storage, except when it is necessary to add or remove waste.

(4) A container holding hazardous waste shall not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

(5) The owner or operator shall inspect areas where containers are stored, at least weekly, for leaks and for deterioration caused by corrosion or other factors.

(6) Containers holding ignitable or reactive waste shall be setback within at least 15 meters — 50 feet — from the facility's property line.

(7) Incompatible wastes, or incompatible wastes and materials, see Appendix IV of this section, shall not be placed in the same container, unless subsection (g)(2) of this section is complied with.

(8) Hazardous waste shall not be

placed in an unwashed container that previously held an incompatible waste or material — see Appendix IV of this section — unless subsection (g)(2) of this section is complied with.

(9) 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, shall be separated from the other materials or protected from them by means of an impermeable dike, berm, wall or other device.

(r) Tanks.

(1) This subsection shall apply to owners and operators of facilities that use tanks to treat or store hazardous waste except as otherwise provided in subsection (a) of this section.

(2) Treatment or storage of hazardous waste in tanks shall comply with subsection (g)(2) of this section.

(3) Hazardous wastes or treatment reagents shall not be placed in a tank if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail before the end of its intended life.

(4) Uncovered tanks shall be operated to ensure at least 60 centimeters — two feet — of freeboard unless the tank is equipped with an overflow alarm and an overflow device to a standby tank with a capacity equal to or exceeding the volume of top 60 centimeters — two feet — of the uncovered tank.

(5) Where hazardous waste is continuously fed into a tank, the tank shall be equipped with a means to stop the inflow.

(6) For liquid storage in above ground tanks or partially above ground tanks, there shall be a containment structure with a capacity that equals or exceeds the largest above ground tank volume plus a reasonable allowance for precipitation based on local weather conditions and plant operation. The requirements of this paragraph shall be complied with within six months after the effective date of this section.

(7) 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 shall, before treating or storing the different waste or using the different process, conduct waste analyses and trial treatment or storage tests, or

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 all applicable requirements of paragraphs (1) — (3) of this subsection.

(8) The owner or operator of a tank shall inspect, where present:

(i) Discharge control equipment at least once each operating day, to ensure that it is in good working order.

(ii) Data gathered from monitoring equipment at least once each operating day, to ensure that the tank is being operated according to its design.

(iii) The level of waste in the tank, at least once each operating day, to ensure compliance with paragraph (4) of this subsection.

(iv) The construction materials of the tank, at least weekly, to detect corrosion or leaking of fixtures or seams.

(v) The construction materials of, and the area immediately surrounding discharge confinement structures at least weekly to detect erosion or obvious signs of leakage.

(9) At closure, all hazardous waste and hazardous waste residues shall be removed from tanks, discharge control equipment, and discharge confinement structures.

(10) Ignitable or reactive waste shall not be placed in a tank, unless:

(i) the waste is treated, rendered, or mixed before or immediately after placement in the tank so that the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste and paragraph (g)(2) of this section is complied with;

(ii) the waste is stored or treated in such a way that it is protected from material or conditions which may cause the waste to ignite or react; or

(iii) the tank, by Department approval, is used solely for emergencies.

(11) The owner or operator of a facility which treats or stores ignitable or reactive waste in covered tanks shall 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"

(12) Incompatible waste, or incompatible wastes and materials, see Appendix IV of this section, shall not be placed in the same tank in compliance with subsection (g)(2) of this section.

(13) Hazardous waste shall not be placed in an unwashed tank which pre-

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viously held an incompatible waste or material in compliance with subsection (g)(2) of this section.

(s) *Surface impoundments.*

(1) This subsection shall apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste unless otherwise provided in subsection (a) of this section.

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

(3) All earthen dikes shall have a protective cover, such as suitable vegetation, rock riprap, or non-erodible material to minimize wind and water erosion and preserve structural integrity.

(4) Whenever a surface impoundment is to be used to chemically treat a hazardous waste which is substantially different from waste previously treated in that impoundment, or chemically treat hazardous waste with a substantially different process than any previously used in that impoundment; the owner or operator shall, before treating the different waste or using the different process, conduct waste analyses and trial treatment tests, or obtain written, documented information on similar treatment of similar waste under similar operating conditions.

(5) The owner or operator shall comply with the requirements of subsection (g)(2) of this section.

(6) The owner or operator shall inspect the following:

(i) The freeboard level at least once each operating day.

(ii) The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect leaks, deterioration, or failures in the impoundment.

(7) At closure, the owner or operator may elect to remove from the impoundment the following:

(i) Standing liquids.

(ii) Waste and waste residues.

(iii) The liner, if any.

(iv) Underlying and surrounding contaminated soil.

(8) If the owner or operator removes all the impoundment materials listed in paragraph (7) of this subsection, or can demonstrate that none of the materials listed in paragraph (7) of this subsection remaining at any state of

removal are hazardous wastes, the impoundment is not further subject to the requirements of this subsection.

(9) If the owner or operator does not remove all the impoundment materials in paragraph (7) of this subsection, or does not make the demonstration in paragraph (8) of this subsection, he shall close the impoundment and provide post-closure care as for a landfill in subsection (o) and (y). If necessary to support the final cover specified in the approved closure plan, the owner or operator shall treat remaining liquids, residues, and soils by removal of liquids, drying, or other means.

(10) Ignitable or reactive waste shall not be placed in a surface impoundment, unless:

(i) the waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste; and subsection (g)(2) of this section is complied with; or

(ii) the surface impoundment is used solely for emergencies after approval by the Department.

(11) Incompatible wastes, or incompatible wastes and materials, (see Appendix IV) shall not be placed in the same surface impoundment, unless subsection (g)(2) of this section is complied with.

(t) *Waste piles.*

(1) This subsection shall apply to owners and operators of facilities that treat or store hazardous waste in piles except as otherwise provided subsection (a) of this section. Alternatively, a pile of hazardous waste may be managed as a landfill under subsection (v) of this section, if the pile is used as a disposal facility.

(2) The owner or operator of a pile containing hazardous waste which could be subject to dispersal by wind shall cover or otherwise manage the pile so that wind dispersal is controlled.

(3) The owner or operator shall analyze a representative sample of waste from each incoming shipment before adding the waste to an existing pile, unless:

(i) the only wastes the facility receives are amenable to piling and are compatible with each other; or

(ii) the waste received is compatible with the waste in the pile to which it is to be added.

(4) The analysis conducted shall 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. The analysis shall include a visual comparison of color and texture.

(5) If leachate or run-off from a pile is a hazardous waste, then either:

(i) the pile shall be placed on an impermeable base that is compatible with the waste under conditions of treatment or storage, run-on shall be diverted away from the pile, and any leachate and run-off from the pile shall be collected and managed as a hazardous waste; or

(ii) the pile shall be protected from precipitation and run-on by some other means; and

(iii) no liquids or wastes containing free liquids shall be placed in the pile.

(6) The date for compliance with paragraph (5)(i) and (ii) of this subsection and is 12 months after the effective date of these regulations or earlier date as specified by the Department.

(7) Ignitable or reactive waste shall not be placed in a pile, unless:

(i) addition of the waste to an existing pile results in the waste or mixture no longer meeting the definition of ignitable or reactive waste, and complies with subsection (g)(2) of this section; or

(ii) 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.

(8) Incompatible wastes and materials — see Appendix IV — shall not be placed in the same pile, unless subsection (g)(2) of this section is complied with.

(9) 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 shall be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device.

(10) Hazardous waste shall not be piled on the same area where incompatible wastes or materials were previously piled, unless the area has been decontaminated sufficiently to ensure compliance with subsection (g)(2) of this section.

(u) *Land treatment.*

(1) This subsection shall apply to owners and operators of hazardous waste land treatment facilities except as otherwise provided in subsection (a) of this section.

(2) Hazardous waste shall not be

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placed in or on a land treatment facility unless the waste can be made non-hazardous by biological degradation or chemical reactions occurring in or on the soil.

(3) Run-on shall be diverted away from the land treatment facility.

(4) Run-off from a land treatment facility shall be collected. If the collected run-off is a hazardous waste under § 75.261 of this title, it must be managed as a hazardous waste in accordance with all applicable requirements.

(5) The date for compliance with paragraphs (3) and (4) of this subsection is 12 months after the effective date of this section or an earlier date as specified by the Department.

(6) Before placing a hazardous waste in or on a land treatment facility, the owner or operator shall:

(i) determine the concentrations in the waste of any substances which exceed the maximum concentrations contained in Table I of § 75.261 of this title (relating to criteria, identification, and listing of hazardous wastes) that cause a waste to exhibit the EP toxicity characteristic;

(ii) for any waste listed in § 75.261 of this title (relating to criteria, identification, and listing of hazardous wastes) determine the concentrations of substances which caused the waste to be listed as a hazardous waste; and

(iii) 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.

(7) 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, shall notify the Regional Office within 60 days after the effective date of this section.

(8) Food chain crops shall not be grown on the treated area of a hazardous waste land treatment facility unless the owner or operator can demonstrate, based on field testing, that any arsenic, lead, mercury, or other constituents identified under paragraph (6)(ii) of this subsection:

(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; 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 similar soils under similar conditions in the same region.

(9) The information necessary to make the demonstration required by

paragraph (8) of this subsection shall be retained at the facility and shall at a minimum:

(i) be based upon tests for the specific waste and application rates being used at the facility; and

(ii) include plant tissue analysis, soil profile descriptions from test pits dug in representative areas of all soil series mapped on the facility by the USDA Soil Conservation Service or a qualified soil scientist, soil chemical analysis, sample selection criteria, sample size determination, analytical methods, and statistical procedures.

(10) Food chain crops shall not be grown on a land treatment facility receiving waste that contains cadmium unless all the following requirements are met:

(i) The pH of the soil affected by the waste is 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of 2 mg/kg — dry weight — or less.

(ii) 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 shall not exceed:

Time Period	Annual Cd Application Rate (kg/ha)	(lb/ac)
Present to June 30, 1984	2.0	1.78
July 1, 1984 to Dec. 31, 1986	1.25	1.12

(iii) The cumulative lifetime application of cadmium from waste shall not exceed the levels in either clauses (A) or (B) of this subparagraph.

(A) Maximum cumulative (lifetime 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

(B) For soils with a background pH of less than 6.5, the cumulative lifetime cadmium application rate does not exceed the levels below; provided, that the pH of the soil affected by the waste 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)
less than 5	5
5-15	10
greater than 15	20

(iv) The only food chain crop produced is animal feed.

(v) The pH of the waste and soil (mixture) is 6.5 or greater at the time of waste application and at the time

the crop is planted, and this pH level is maintained whenever food chain crops are grown.

(vi) 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 to be taken to safeguard against possible health hazards from cadmium entering

the food chain, which may result from alternative land uses.

(vii) Future property owners are notified by a stipulation in the property deed which states that the property has received waste at high cadmium application rates and that food chain crops should not be grown, due to a possible health hazard.

(viii) The Department as it deems necessary may require additional conditions and restrictions for the demonstration project depending on the design and the site.

(ix) A conceptual design of the plan shall be approved by the Department prior to the commencement of the demonstration project.

(11) The owner or operator shall have in writing and shall implement an unsaturated zone monitoring plan which is designed to:

(i) Detect the vertical migration of hazardous waste and hazardous waste constituents under the active portion of the land treatment facility; and

(ii) Provide information on the background concentrations of the hazardous waste and hazardous waste constituents in similar but untreated soils nearby; this background monitoring shall be conducted before or in conjunction with the monitoring required under paragraph (11)(i) of this subsection.

(12) The unsaturated zone monitoring plan shall include, at a minimum:

(i) Soil monitoring using soil samples and

(ii) Soil-pore water monitoring using devices such as lysimeters.

(13) To comply with paragraph (11)(i) of this subsection, the owner or operator shall demonstrate in his unsaturated zone monitoring plan that:

(i) 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;

(ii) The number of soil and soil-pore water samples to be taken is based on the variability of:

(A) The hazardous waste constituents in the waste and in the soil; and

(B) The soil series and phases; and

(iii) The frequency and timing of soil and soil-pore water sampling is based on the frequency, time, and rate of waste application, proximity to ground water, and soil permeability.

(14) The owner or operator shall retain at the facility his unsaturated zone monitoring plan, and the rationale used in developing this plan.

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(15) The owner or operator shall analyze the soil and soil-pore water samples for the hazardous waste constituents that were found in the waste during the waste analysis under paragraphs (6)(i) and (ii) of this subsection.

(16) The owner or operator of a land treatment facility shall maintain records of the application dates, application rates, quantities, and location of each hazardous waste placed in the facility, in the operating record required in subsection (k) of this section.

(17) In the closure and post-closure plan under subsection (o) of this section the owner or operator shall address the following objectives and indicate how they will be achieved:

(i) Control of the migration of hazardous waste and hazardous waste constituents from the treated area into the ground water;

(ii) Control of the discharge of contaminated run-off from the facility into surface water or ground water;

(iii) Control of the emission of airborne particulate contaminants caused by wind erosion; and

(iv) Compliance with paragraphs (7) — (10) of this subsection concerning the growth of food-chain crops.

(18) The owner or operator shall consider at least the following factors in addressing the closure and post-closure care objectives of paragraph (17) of this subsection.

(i) Type and amount of hazardous waste and hazardous waste constituents applied to the land treatment facility;

(ii) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

(iii) Site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration.

(iv) Climate, including amount, frequency, and pH of precipitation;

(v) Geological and soil profiles and surface and subsurface hydrology of the site, and soil chemical characteristics, including at least cation exchange capacity, total organic carbon, and pH;

(vi) Unsaturated zone monitoring information obtained under paragraphs (11) — (15) of this section; and

(vii) Type, concentration, and depth of migration of hazardous waste constituents in the soil as compared to their background concentrations.

(19) The owner or operator shall consider at least the following methods in

addressing the closure and post-closure care objectives of paragraph (17) of this subsection:

(i) Removal of contaminated soils;

(ii) Placement of a final cover, considering:

(A) Functions of the soil cover; and

(B) Characteristics of the soil cover, including material, final surface contours, thickness, porosity and permeability, slope, length of slope, and type of vegetation on the cover;

(iii) Collection and treatment of run-off;

(iv) Diversion structures to prevent surface water run-on from entering the treated area; and

(v) Monitoring of soil, soil-pore water, and ground water.

(20) In addition to the requirements of subsection (o)(10) — (13) of this section, during the post-closure care period, the owner or operator of a land treatment facility shall:

(i) Maintain any unsaturated zone monitoring system, and collect and analyze samples from this system in a manner and frequency specified in the post-closure plan;

(ii) Restrict access to the facility as appropriate for its post-closure use; and

(iii) Assure that growth of food chain crops complies with paragraphs (7) — (10) of this subsection.

(21) Ignitable or reactive wastes shall not be land treated unless approved by the Department.

(22) Incompatible wastes, or incompatible wastes and materials, (see Appendix IV) shall not be placed in the same land treatment area, unless subsection (g)(2) of this section is complied with.

(v) Landfills.

(1) This subsection applies to owners and operators of facilities that dispose of hazardous waste in landfills except as otherwise provided in subsection (a) of this section. A waste pile used as a disposal facility is a landfill and is governed by this subsection.

(2) Run-on shall be diverted away from the landfill.

(3) Run-off from active portions of a landfill shall be collected. If the collected run-off is a hazardous waste, it shall be managed as a hazardous waste in accordance with all applicable requirements.

(4) The date for compliance with paragraphs (2) and (3) of this subsection shall be 12 months after the effec-

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tive date of this section or earlier as determined by the Department.

(5) The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind shall cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

(6) The owner or operator of a landfill shall maintain the following items in the operating record required in subsection (k) of this section.

(i) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

(ii) The contents of each cell and the approximate location of each hazardous waste type within each cell.

(7) The owner or operator shall place a final cover over the landfill, and the closure plan under paragraphs (o)(3) — (5) of this subsection shall specify the function and design of the cover. In the post-closure plan the owner or operator shall include the post-closure care requirements of paragraph (10) of this subsection.

(8) In the closure and post-closure plans, the owner or operator shall address the following objectives and indicate how they will be achieved:

(i) Control of pollutant migration from the facility by ground water, surface water, and air;

(ii) Control of surface water infiltration, including prevention of ponding; and

(iii) Prevention of erosion.

(9) The owner or operator shall consider at least the following factors in addressing the closure and post-closure care objectives of paragraph (8) of this subsection.

(i) Type and amount of hazardous waste and hazardous waste constituents in the landfill;

(ii) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

(iii) Site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration;

(iv) Climate, including amount, frequency, and pH of precipitation;

(v) Characteristics of the cover including material, final surface contours, thickness, porosity and permeability, slope, length of slope, and type of vegetation on the cover; and

(vi) Geological and soil profiles and

surface and subsurface hydrology of the site.

(10) In addition to the requirements of subsection (o) of this section, during the post-closure care period, the owner or operator of a hazardous waste landfill shall:

(i) Maintain the function and integrity of the final cover as specified in the approved closure plan;

(ii) 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. The collected leachate is a hazardous waste, unless it is determined to be non-hazardous in accordance with § 75.261(b)(4) of this title, and shall be managed as a hazardous waste in accordance with all applicable requirements.

(iii) 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;

(iv) Protect and maintain surveyed benchmarks; and

(v) Restrict access to the landfill as appropriate for its post-closure use.

(11) Ignitable or reactive waste shall not be placed in a landfill, unless approved by the Department.

(12) Incompatible wastes, or incompatible wastes and materials, see Appendix IV of this section, shall not be placed in the same landfill cell unless paragraph (g)(2) of this section is complied with.

(13) Liquid waste and waste containing free liquids shall not be placed in a landfill. Any hazardous waste to be disposed of in a landfill shall have greater than 20% solids content by dry weight and shall not be flowable (Flowable refers to flow in the sense of pourable as a liquid). The date for compliance with this requirement shall be 12 months after the effective date of these regulations or earlier as determined by the Department. Written approval shall be obtained from the Department to continue such disposal activities during this 12 month period.

(14) No hazardous waste shall be co-disposed with municipal waste unless approved by the Department.

(15) An empty container shall be crushed flat, shredded, or similarly reduced in volume before it is buried in the landfill.

(w) *Incinerators.*

(1) The requirements in this subsection

apply to owners and operators of facilities that dispose hazardous waste in incinerators, except as otherwise provided in subsection (a) of this section.

(2) Before adding hazardous waste in an incinerator, the owner or operator shall bring the incinerator to steady state — normal — conditions of operation including steady state operating temperature and air flow using auxiliary fuel or other means.

(3) The owner or operator shall sufficiently analyze any type of waste which has not been previously burned in the incinerator to enable him to establish steady state — normal — operating conditions including waste and auxiliary fuel feed and air flow to determine the type of pollutants which might be emitted. At a minimum, the analysis shall determine:

(i) Heating value of the waste;

(ii) Halogen content and sulfur content; and

(iii) 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.

(4) The owner or operator shall conduct, as a minimum, the following monitoring and inspections when incinerating hazardous waste:

(i) Existing instruments which relate to combustion and emission control shall be monitored at least every 15 minutes. Appropriate corrections to maintain steady state combustion conditions shall be made immediately either automatically or by the operator. Instruments which relate to combustion and emission control would normally include those measuring waste feed, auxiliary fuel feed, air flow, incinerator temperature, scrubber flow, scrubber pH, and relevant level controls.

(ii) The stack plume emissions shall be observed visually at least hourly for normal appearance, color and opacity. The operator shall immediately make any indicated operating corrections necessary to return visible emissions to their normal appearance.

(iii) The complete incinerator and associated equipment — pumps, valves, conveyors, pipes, and the like — shall be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shutdown controls and system alarms shall be checked to assure proper operation.

(5) At closure, the owner or operator

shall remove all hazardous waste and hazardous waste residues including but not limited to ash, scrubber waters, and scrubber sludges from the incinerator.

(x) *Thermal treatment.*

(1) This subsection applies to owners and operators of facilities that thermally treat hazardous waste in devices other than incinerators unless otherwise provided in subsection (a) of this section. Thermal treatment in incinerators is subject to the requirements of subsection (w) of this section.

(2) Before adding hazardous waste, the owner or operator shall bring his thermal process to steady state — normal — conditions of operation including steady state operating temperature using auxiliary fuel or other means, unless the process is a non-continuous — batch — thermal treatment process which requires a complete thermal cycle to treat a discrete quantity of hazardous waste.

(3) The owner or operator shall sufficiently analyze any type of waste which has not been previously treated in his thermal treatment process to enable him to establish steady state — normal — or other appropriate — for a non-continuous 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 shall determine:

- (i) Heating value of the waste;
- (ii) Halogen content and sulfur content in the waste; and
- (iii) 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.

(4) The owner or operator shall conduct, as a minimum, the following monitoring and inspections when thermally treating hazardous waste:

(i) Existing instruments which relate to temperature and emission control — if an emission control device is present — shall be monitored at least every 15 minutes. Appropriate corrections to maintain steady state or other appropriate thermal treatment conditions shall 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, treatment process temperature, and relevant process flow and level controls.

(ii) The stack plume — emis-

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sions — where present, shall be observed visually at least hourly for normal appearance — color and opacity. The operator shall immediately make any indicated operating corrections necessary to return any visible emissions to their normal appearance.

(iii) The complete thermal treatment process and associated equipment — pumps, valves, conveyors, pipes, and the like — shall be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shutdown controls and system alarms shall be checked to assure proper operation.

(5) At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues, including,

<i>Pounds of Waste Explosives or Propellants</i>
0 — 100
101 — 1,000
1,001 — 10,000
10,001 — 30,000

(y) *Chemical, physical, and biological treatment.*

(1) This subsection applies to owners and operators of facilities which treat hazardous waste by chemical, physical or biological treatment processes in other than tanks, surface impoundments and land treatment facilities except as otherwise provided in subsection (a) of this section. Chemical, physical and biological treatment of hazardous waste in tanks, surface impoundments, and land treatment facilities shall be conducted in accordance with the following subsections: (r), (s), and (u), respectively.

(2) Chemical, physical or biological treatment of hazardous waste shall comply with paragraph (g)(2) of this section.

(3) Hazardous wastes or treatment reagents shall not be placed in the treatment process or equipment if they could cause the treatment process or equipment to rupture, leak, corrode, or otherwise fail before the end of its intended life.

(4) Where hazardous waste is continuously fed into a treatment process or equipment, the process or equipment shall be equipped with a means to stop the inflow.

(5) When a hazardous waste which is substantially different from waste previously treated in a treatment process or equipment at the facility is to be treated in that process or equipment, or a substantially different process than any previously used at the

but not limited to, ash, from the thermal treatment process or equipment.

(6) 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 treatment. 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 shall do so in accordance with the following table and in a manner that does not threaten human health or the environment:

<i>Minimum Distance from Open Burning or Detonation to the Property of Others</i>
204 meters (670 feet)
380 meters (1,250 feet)
530 meters (1,730 feet)
690 meters (2,260 feet)

facility is to be used to chemically treat hazardous waste; the owner or operator shall before treating the different waste or using the different process or equipment:

(i) Conduct waste analyses and trial treatment tests; or

(ii) Obtain written, documented information on similar treatment of similar waste under similar operating conditions;

to show that this proposed treatment will meet all applicable requirements of paragraphs (2) and (3) of this subsection.

(6) The owner or operator of a treatment facility shall inspect:

(i) Discharge control and safety equipment at least once each operating day, to ensure that it is in good working order;

(ii) Data gathered from monitoring equipment such as pressure and temperature gauges, at least once each operating day, to ensure that the treatment process or equipment is being operated according to its design;

(iii) The construction materials of the treatment process or equipment, at least weekly, to detect corrosion or leaking of fixtures or seams; and

(iv) The construction materials of, and the area immediately surrounding, discharge confinement structures, at least weekly, to detect erosion or obvious signs of leakage.

(7) At closure, all hazardous waste

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and hazardous waste residues shall be removed from treatment processes or equipment, discharge control equipment, and discharge confinement structures.

(8) Ignitable or reactive waste shall not be placed in a treatment process or equipment unless:

(i) The waste is treated, rendered, or mixed before or immediately after placement in the treatment process or equipment so that the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste, or paragraph (g)(2) of this section is complied with.

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

(9) Incompatible wastes, or incompatible wastes and materials — see Appendix IV of this section — shall not be placed in the same treatment process or equipment unless paragraph (g)(2) of this section is complied with.

(10) Hazardous waste shall not be placed in unwashed treatment equipment which previously held an incompatible waste or material unless paragraph (g)(2) of this section is complied with.

(z) *Hazardous waste management permit program.*

(1) This subsection sets forth specific requirements for the Hazardous Waste Management (HWM) Permit Program.

(2) Any person or municipality who owns or operates an existing hazardous waste storage or treatment facility shall be regarded as having interim status provided that:

(i) The notification requirements of § 75.267 of this title have been complied with;

(ii) Part A of the permit application has been submitted; and

(iii) Section 75.265 of this title shall be complied with.

(3) A person or municipality who owns or operates an existing hazardous waste disposal facility shall be regarded as having interim status provided that:

(i) The facility has a current solid waste permit issued by the Department; and

(ii) The requirements of paragraph (2) of this subsection is complied with.

(4) For an existing facility, notification completed pursuant to Section 3010 of the Resource Conservation and

Recovery Act (42 U.S.C. § 56930) and submission of Part A of the Consolidated Permit Application forms to EPA pursuant to 40 C.F.R. Part 122, Federal Regulation May 19, 1980 shall be deemed to satisfy the requirements of paragraphs (2)(i) and (ii) of this subsection.

(5) HWM facility owners or operators having interim status shall be treated as having been issued a permit until such time as final departmental action on Part A of the permit application is made. During the Department's revision or subsequent review of Part A of the permit application, if it is determined that the HWM facility fails to meet the standards under this section, or if the application is deficient the Department shall notify the owner or operator of the determination and may notify the HWM facility that it is no longer entitled to interim status.

(6) At any time after promulgation of § 75.264 of this title, the owner and operator of an existing HWM facility may be required to submit Part B of the permit application. An owner or operator shall be allowed at least six months from the date of request to submit Part B of the application. Any owner or operator of an existing HWM facility may voluntarily submit Part B of the application at any time. In no instance, shall a HWM owner or operator continue to store, treat or dispose of hazardous waste under interim status without obtaining a HWM permit from the Department before September 5, 1982.

(7) Failure to furnish a requested Part A or Part B application on time, or to furnish in full the information required by the Part A or Part B application shall be grounds for termination of interim status.

(8) No later than the effective date of any revisions to § 75.261 of this title, listing or designating additional wastes as hazardous, the owner or operator of a HWM facility treating, storing or disposing of such wastes shall file an amended Part A application with the Department. The owner or operator of a HWM facility who fails to comply with this requirement shall not receive interim status as to the wastes not covered by duly filed Part A permit applications.

(9) No person or municipality shall begin physical construction on a new HWM facility without having submitted Part A and Part B of the permit application and received a HWM permit from the Department. An application for a permit for a new HWM facility including both Part A and Part B shall be filed with the Department

any time after promulgation of § 75.264 of this title.

(10) Applications for a permit shall be made by a person or municipality who is required to have a permit including new applicants and permittees with expiring permits, and shall complete, sign, and submit an application to the Department as described in paragraph (13) of this subsection. Persons or municipalities currently authorized with interim status under the act shall apply for permits when required by the Department. Publicly owned treatment works meeting the requirements of paragraph (14) of this subsection need not apply.

(11) All applicants for HWM permits shall at a minimum provide all the information required in the Part A and Part B application forms. The Department may require additional information. The Department shall return incomplete applications to the applicant.

(12) Applicants shall keep records of all data used to complete permit applications including Part A and Part B for a period of at least three years from the date the application is signed.

(13) It shall be the operator's duty to obtain a permit and the owner and operator shall sign the permit application.

(i) All permit applications shall be signed as follows:

(A) By a principal executive officer of at least the level of vice-president for a corporation;

(B) By a general partner or the proprietor, respectively for a partnership or sole proprietorship; or

(C) By either a principal executive officer or ranking elected official for a municipality, State, Federal, or other public agency.

(ii) All reports required by permits and other information requested by the Department shall be signed by a permittee or municipality described in subparagraph (13)(i) of this section, or by an authorized representative. The Department shall be notified in writing of any change in authorization.

(iii) For certification, any person signing a document under subparagraph (13)(i) of this section shall certify as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is

true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(14) A publicly owned treatment works (POTW) which accepts for treatment hazardous wastes, shall be deemed to have a HWM permit if the following conditions are met:

- (i) Has an NPDES permit;
- (ii) Complies with the conditions of that permit; and
- (iii) Complies with the following provisions:
 - (A) Section 75.264(b) of this title (relating to identification number);
 - (B) Section 75.264(j) of this title (relating to use of manifest system);
 - (C) Section 75.264(k) of this title (relating to operating records); and
 - (D) Section 75.264(m) of this title (relating to quarterly facility and additional reports).

(iv) 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.

(15) A HWM permit shall be effective for a fixed term not to exceed ten years. The Department may issue a permit for a duration that is less than the full allowable term.

(16) Confidentiality of information.

(i) Information submitted to the Department pursuant to this subsection may be claimed as confidential by the applicant. Any such claim shall be asserted at the time of submission in the manner prescribed in the application form or instructions by stamping the words "confidential business information" on each page containing such in-

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formation. If no claim is made at the time of submission, the Department shall make the information available to the public without further notice.

(ii) Claims of confidentiality for permit application information shall be substantiated at the time the application is submitted and shall address the following:

- (A) The portions of the information claimed to be confidential;
- (B) The length of time the information is to be treated as confidential;
- (C) The measures taken to guard against undesired disclosure of the information to others;
- (D) The extent the information has been disclosed to others and the precautions taken in connection with that disclosure;
- (E) A copy of pertinent confidentiality determinations by EPA or any other Federal agency;
- (F) The nature of the substantial harm to the competitive position by disclosure of the information, the reasons it should be viewed as substantial and the relationship between the disclosure and the harm.

(iii) The Department shall keep confidential information in a secure repository and shall not make such information available for inspection by the general public.

(iv) The Department shall make confidential information available to any State or Federal agency for the purpose of administration of any State or Federal law.

Appendix I — Recordkeeping Instructions

The recordkeeping provisions of subsection (k) of this section specify that an owner or operator shall keep a written operating record at his facility. This

appendix provides additional instructions for keeping portions of the operating record.

The following information shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility in the following manner:

Records of each hazardous waste received, treated, stored, or disposed of at the facility which include the following:

(1) A description by its common name and the Hazardous Waste Number from § 75.261 of this title which apply to the waste. The waste description also must include the waste's physical form, that is, liquid, sludge, solid, or contained gas. If the waste is not listed in § 75.261(d) of this title, the description also shall include the process that produced it, for example, solid filter cake from the production of _____, Hazardous Waste Number W051.

Each hazardous waste listed in § 75.261 of this title and each hazardous waste characteristic defined in § 75.261 of this title has a four-digit Hazardous Waste Number assigned to it. This number shall be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description shall include all applicable Hazardous Waste Numbers.

(2) The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1 of this Appendix I.

(3) The methods — by handling codes as specified in Table 2 of this Appendix I — and dates of treatment, storage or disposal.

Table 1

Units of measure	Symbol*	Density
Pounds	P	
Short tons (2,000 lbs)	T	
Gallons (U. S.)	G	P/G
Cubic Yards	Y	T/Y
Kilograms	K	
Tonnes (1,000 kg)	M	
Liters	L	K/L
Cubic meters	C	M/C

*Single-digit symbols are used here for data processing purposes.

Table 2 — Handling Codes for Treatment, Storage, and Disposal Methods

Enter the handling codes listed below that most closely represent the techniques used at the facility to treat, store, or dispose of each quantity of hazardous waste received.

(1) Storage

- S01 Container (barrel, drum, and the like)
- S02 Tank
- S03 Waste pile
- S04 Surface impoundment
- S05 Other (specify)

(2) Treatment

(a) Thermal Treatment

- T06 Liquid injection incinerator
- T07 Rotary kiln incinerator
- T08 Fluidized bed incinerator
- T09 Multiple hearth incinerator
- T10 Infrared furnace incinerator
- T11 Molten salt destructor
- T12 Pyrolysis
- T13 Wet Air oxidation
- T14 Calcination

- T15 Microwave discharge
- T16 Cement kiln
- T17 Lime kiln
- T18 Other (specify)

(b) Chemical Treatment

- T19 Absorption mound
- T20 Absorption field
- T21 Chemical fixation
- T22 Chemical oxidation
- T23 Chemical precipitation
- T24 Chemical reduction
- T25 Chlorination
- T26 Chlorinolysis
- T27 Cyanide destruction
- T28 Degradation
- T29 Detoxification
- T30 Ion exchange
- T31 Neutralization
- T32 Ozonation
- T33 Photolysis
- T34 Other (specify)

(c) Physical Treatment

(i) Separation of Components

- T35 Centrifugation
- T36 Clarification
- T37 Coagulation
- T38 Decanting
- T39 Encapsulation
- T40 Filtration
- T41 Flocculation
- T42 Flotation
- T43 Foaming
- T44 Sedimentation
- T45 Thickening
- T46 Ultrafiltration
- T47 Other (specify)

(ii) Removal of specific components

- T48 Absorption-molecular sieve
- T49 Activated carbon
- T50 Blending
- T51 Catalysis
- T52 Crystallization
- T53 Dialysis
- T54 Distillation
- T55 Electrodialysis
- T56 Electrolysis
- T57 Evaporation
- T58 High gradient magnetic separation
- T59 Leaching
- T60 Liquid ion exchange

- T61 Liquid-liquid extraction
- T62 Reverse osmosis
- T63 Solvent recovery
- T64 Stripping
- T65 Sand filter
- T66 Other (specify)

(d) Biological Treatment

- T67 Activated sludge
- T68 Aerobic lagoon
- T69 Aerobic tank
- T70 Anaerobic lagoon
- T71 Composting
- T72 Septic tank
- T73 Spray irrigation
- T74 Thickening filter
- T75 Trickling filter
- T76 Waste stabilization pond
- T77 Other (specify)
- T78-79 (Reserved)

(3) Disposal

- D80 Underground injection
- D81 Landfill
- D82 Land treatment
- D83 Ocean disposal
- D84 Surface impoundment (to be closed as a landfill)
- D85 Other (specify)

Appendix II — EPA Interim Primary Drinking Water Standards

Parameter	Maximum Level (mg/l)
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium	0.05
Fluoride	1.4 — 2.4
Lead	0.05
Mercury	0.002
Nitrate (as N)	10
Selenium	0.01
Silver	0.05
Endrin	0.0002
Lindane	0.004
Methoxychlor	0.1
Toxaphene	0.005
2,4-D	0.1
2,4,5-TP Silvex	0.01
Radium	5 pCi/l
Gross Alpha	15 pCi/l
Gross Beta	4 millirem/yr
Turbidity	1/TU
Coliform Bacteria	1/100 ml

Appendix III—Tests for Significance

The owner or operator must use the Student's t-test to determine statistically significant changes in the concentration or value of an indicator parameter in periodic ground-water samples when compared to the initial background concentration or value of that indicator parameter. The comparison must consider individually each of the wells in the monitoring system. For four of the indicator parameters (specific conductance, total organic carbon, total organic halogen,

and total dissolved solids) a single-tailed Student's t-test must be used to test at the 0.01 level of significance for significant increases over background. The difference test for pH must be a two-tailed Student's t-test at the overall 0.01 level of significance.

The Students' t-test involves calculations of the value of a t-statistic for each comparison of the mean — average — concentration or value — based on a minimum of four replicate measurements — of an indicator parameter with its initial background concentration or value. The calculated

value of the t-statistic must then be compared to the value of the t-statistic found in a table for t-test of significance at the specified level of significance. A calculated value of t which exceeds the value of t found in the table indicates a statistically significant change in the concentration or value of the indicator parameter.

Formulae for calculation of the t-statistic and tables for t-test significance can be found in most introductory statistics texts.

Appendix IV—Examples of Potentially Incompatible Waste

Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects which are harmful to human health and the environment, such as (1) heat or pressure, (2) fire or explosion, (3) violent reaction, (4) toxic dusts, mists, fumes, or gases, or (5) flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences which result from mix-

ing materials in one group with materials in another group. The list is intended as a guide to owners or operators of treatment, storage, and disposal facilities, and to enforcement and permit granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator must, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not.

It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction (such as adding acid to water rather than water to acid) or that neutralizes them (such as a strong acid mixed with a strong base), or that controls substances produced (such as by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator).

In the lists below, the mixing of a Group A material with a Group B material may have the potential consequences as noted.

Group 1-A

Acetylene sludge
Alkaline caustic liquids
Alkaline cleaner
Alkaline corrosive liquids
Alkaline corrosive battery fluid
Caustic waste water
Lime sludge and other corrosive alkalies
Lime wastewater
Lime and water
Spent caustic

Potential consequences: Heat generation; violent reaction.

Group 2-A

Aluminum
Beryllium
Calcium
Lithium
Magnesium
Potassium
Sodium
Zinc powder
Other reactive metals and metal hydrides

Potential consequences: Fire or explosion, generation of flammable hydrogen gas.

Group 3-A

Alcohols
Water

Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.

Group 4-A

Alcohols
Aldehydes
Halogenated hydrocarbons
Nitrated hydrocarbons
Unsaturated hydrocarbons
Other reactive organic compounds and solvents

Potential consequences: Fire, explosion, or violent reaction.

Group 5-A

Spent cyanide and sulfide solutions

Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.

Group 1-B

Acid sludge
Acid and water
Battery acid
Chemical cleaners
Electrolyte, acid
Etching acid liquid or solvent
Pickling liquor and other corrosive acids
Spent acid
Spent mixed acid
Spent sulfuric acid

Group 2-B

Any waste in Group 1-A or 1-B

Group 3-B

Any concentrated waste in Groups 1-A or 1-B
Calcium
Lithium
Metal hydrides
Potassium
SO₂, CL₂, SOCL₂, PCl₃, CH₃SiCl₃
Other water-reactive waste

Group 4-B

Concentrated Group 1-A or
1-B wastes
Group 2-A wastes

Group 5-B

Group 1-B wastes

Group 6-A

Chlorates
Chlorine
Chlorites
Chromic acid
Hypochlorites
Nitrates
Nitric acid, fuming
Perchlorates
Permanganates
Peroxides
Other strong oxidizers

Potential consequences: Fire, explosion, or violent reaction.

Group 6-B

Acetic acid and other organic acids
Concentrated mineral acids
Group 2-A wastes
Group 4-A wastes
Other flammable and combustible wastes

§ 75.267. Notification of hazardous waste activities.

(a) *Scope.* This section applies to any person or municipality who generates, transports, stores, treats, or disposes of hazardous wastes within the Commonwealth.

(b) *Notification requirements.*

(1) Not later than 90 days after promulgation or revision of regulations under § 75.261 of this title (relating to criteria, identification, and listing of hazardous wastes) a person or municipality generating or transporting hazardous wastes or owning or operating a facility for treatment, storage, or disposal of hazardous wastes shall file with the Department a notification of such activity on a form designated by the Department.

(2) Not more than one such notification shall be required to be filed with respect to the same substance.

(3) No identified or listed hazardous waste may be transported, treated, stored or disposed of unless notification has been given as required.

(4) A person or municipality who begins to generate hazardous waste within the Commonwealth after the initial notification period shall file with the Department a completed notification

form for such hazardous waste before the waste is either transported, treated, stored or disposed of.

(5) Any person or municipality who owns or operates a facility where hazardous waste is treated, stored, or disposed and has not filed a notification during the 90 day period following the promulgation or revision of § 75.261 of this title (relating to criteria, identification, and listing of waste) shall not continue hazardous waste activities until a hazardous waste permit has been obtained. Similarly, a person or municipality who plans to open a new hazardous waste treatment, storage, or disposal facility, shall obtain a hazardous waste permit before commencing operations. Owners or operators of new facilities need not submit a notification, since the permit application will fulfill the notification requirements.

(6) Any person or municipality shall not transport hazardous waste within the Commonwealth after the initial notification period without filing a notification form with the Department.

(7) A person or municipality who modifies hazardous waste identification characteristics or ceases production of hazardous wastes shall file a

notification form with the Department.

(8) A notification to the Department shall provide the following information:

(i) Name and mailing address of installation.

(ii) Location of installation.

(iii) Name, title and phone number of installation contact.

(iv) Name of installation's legal owner.

(v) Type of hazardous waste activity.

(vi) Description of hazardous wastes.

(vii) Such other information as the Department may require.

(9) Notification completed pursuant to section 3010 of the Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6930) shall be deemed to satisfy the requirements of this section when furnished to the Department upon request.

(10) Upon receiving the notification, the Department will assign an identification number.

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