

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
OFFICE OF THE GOVERNOR

No. *2863*
Date: *March 5, 1992 10:30 AM*
Approved: Carlos S. Quirós
Secretary of State

Louder I. de la Cruz
By:
Assistant Secretary of State

IN RE: *
ADOPTION BY REFERENCE OF FEDERAL *
REGULATIONS AND PUBLICATIONS INTO * R-81-19-1
THE REGULATIONS FOR THE CONTROL *
OF HAZARDOUS AND NON-HAZARDOUS *
SOLID WASTE *

RESOLUTION OF THE
ENVIRONMENTAL QUALITY BOARD

- WHEREAS: On September 12, 1980 the Environmental Quality Board promulgated the Regulation for the Control of Hazardous and Non-Hazardous Solid Waste;
- WHEREAS: Many of the provisions of said regulation refer to federal regulations or publications that are being incorporated into the Regulation, after compliance with the requirements set forth by law;
- WHEREAS: These federal regulations or publications have been frequently revised by the pertinent federal agencies since said Regulation was promulgated;
- WHEREAS: The Board has reviewed these federal regulations and publications and all revisions to them as of the date of this resolution;
- WHEREAS: The Board desires to have each of these federal provisions, as amended and as they exist on this date, apply with full force and effect, as if they had been written directly into the Regulation for the Control of Hazardous and Non-Hazardous Solid Waste;
- WHEREAS: The Board held public hearings on September 3, 1981, pursuant Rules 207(A) and (B) of the Regulation for the Control of Hazardous and Non-Hazardous Solid Waste so that the citizens had the opportunity to review and comment on each of these federal regulations or publications being incorporated into said regulation;
- WHEREAS: There were no oral or written comments regarding Resolution R-81-11-1 during the public review process

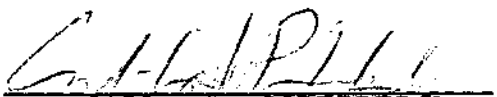
and to the federal regulations and publications set forth in Attachment A.

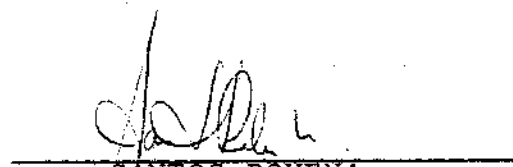
WHEREAS: The Board has the authority under Law No. 9 of June 18, 1970, to promulgate the Regulation for the Control of Hazardous and Non-Hazardous Solid Waste; and, by Resolution, to adopt or approve revisions to these regulations.

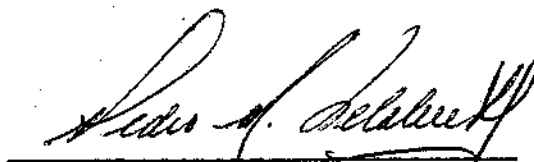
NOW THEREFORE: The Board resolves:

- 1- To approve and adopt each of the federal regulatory provisions listed in Attachment A of this Resolution incorporates them to the Regulation;
- 2- To approve and adopt each of the federal publications listed in Attachment A of this Resolution and incorporates them to the Regulation for the Control of Hazardous and Non-Hazardous Solid Wastes.
- 3- That the effective date of this Resolution will be the date of its approval by the Board.

In San Juan, Puerto Rico, November, 20, 1981.


CARL. A. SODERBERG
Vice-chairman


SANTOS ROHENA
Associate Member


PEDRO A. GELABERT
Chairman

CERTIFICACION

CERTIFICO que la presente es copia fiel y exacta del original que obra en el Archivo de Seguridad de esta Junta

En San Juan, Puerto Rico,

hoy 20 de Noviembre de 1981

COMMONWEALTH OF PUERTO RICO / OFFICE OF THE GOVERNOR

ENVIRONMENTAL QUALITY BOARD


2863


Pursuant to and in accordance with the
Public Policy Environmental Act
(Law No. 9 of June 18, 1970, as amended),
this

REGULATION FOR THE CONTROL
OF
HAZARDOUS AND NON-HAZARDOUS SOLID WASTE

has been promulgated by resolution to
protect the natural environment of Puerto
Rico and the health of its citizens from
hazardous and non-hazardous solid waste.

DATED this 5 th day of March, 1982.


PEDRO A. GELABERT
Chairman


CARL AXEL SODERBERG
Vice-Chairman



SANTOS ROHENA
Associate Member

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PART I
DEFINITIONS
AND
ABBREVIATIONS

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REGULATION FOR

THE CONTROL OF HAZARDOUS AND
NON-HAZARDOUS SOLID WASTE

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PART I - DEFINITIONS AND ABBREVIATIONS

RULE 101 - PURPOSE, SCOPE, AND APPLICABILITY

This part provides definitions of words and phrases and abbreviations applicable to this regulation. Some of the definitions were adopted from other Environmental Quality Board regulations and from federal statutes and regulations. Except as hereinafter stated and unless a different meaning of a word or term is clear from its context, these words or terms have the same meaning when used in this regulation as they have in the statutes or regulations from which they were adopted.

Rule 102 - DEFINITIONS

The following definitions apply throughout this regulation. Where a word or phrase in any definition is in turn defined or is closely related to a word or phrase that is in turn defined in this rule, such word or phrase is enclosed in quotation marks.

Active Portion

That portion of a "solid waste facility" where "storage," "treatment," or "disposal" operations are being or have been conducted after the effective date of this regulation and which is not a "closed portion." (See also "Inactive Portion.")

Adverse Modification (See "Destruction.")

Aeration of a Container

A specific treatment method for empty "containers" which have held volatile material and which consists of opening the "container" and placing it in an inverted position for at least five (5) days.

Agricultural Burning

"Burning" sugar cane, pineapple prunings, or rice hulls and stubble on fields when grown in conjunction with the raising of crops for commercial purposes.

Agricultural Waste

Any "solid waste" produced as a result of agricultural activities, except pineapple prunings and rice hulls and stubble.

Animal Feed Crop

Any crop grown for direct consumption by animals, such as pasture crops, forage, and grain.

Aquifer

A geological formation, group of formations, or part of a formation capable of yielding a significant amount of "ground water" to wells or springs.

Attenuation

Any decrease in the maximum concentration or total quantity of a chemical or biological constituent, either over time or over distance travelled, and resulting from a physical, chemical, or biological reaction or transformation occurring in the "zone of aeration" or the "zone of saturation."

Authorized Representative

The "person" responsible for the overall operation of a facility or part of facility (e.g., the plant manager, superintendent, or person of equivalent responsibility).

Background Soil pH

The "pH" of the soil prior to the addition of substances that alter its hydrogen ion concentration.

Base Flood

A flood that has only a one percent (1%) chance of occurring or being exceeded in any year (i.e. a flood of a magnitude equalled or exceeded, on the average, only once in 100 years).

Basin

Any uncovered, man-made structure used to retain solid waste as part of a treatment process, usually with a capacity of less than 100,000 gallons. Examples of basins include open mixing tanks, clarifiers, and open settling tanks.

Bird Hazard

A reasonable likelihood of aircraft collisions with birds that may cause damage to the aircraft or injury to its occupants.

Board (or "EOB")

The Environmental Quality Board of the Commonwealth of Puerto Rico.

Bulky Waste

Items of "solid waste" that due to their large size are not or cannot be handled by a non-hazardous solid waste collection service, including but not limited to items such as electric appliances, furniture, large auto parts, trees and large branches, stumps, and flottage.

Burning (or "Incineration")

The complete or incomplete combustion of any material.

Cation Exchange Capacity

The sum of exchangeable cations a soil can absorb expressed in milliequivalents per 100 grams of soil, as determined by sampling the soil to the depth of cultivation or to the depth of "solid waste" placement, whichever is greater, and analyzing by the summation method for distinctly acidic soils or the sodium acetate method for neutral, calcareous, or saline soils ("Methods of Soils Analysis, Agronomy Monograph No. 9," C.A. Block, ed., American Society of Agronomy, Madison, Wisconsin, pp 891-901, 1965).

Chemical Fixation

A treatment process involving reactions between a "solid waste" and certain chemicals, resulting in solids which encapsulate, immobilize, or otherwise tie up components in the waste so as to minimize the leaching of these components and render the waste safe or more suitable for "disposal."

Closed Portion

That portion of a "solid waste facility" which an "owner" or "operator" has closed in accordance with an approved facility closure plan and all applicable closure requirements. (See also "Active Portion" and "Inactive Portion.")

Closure

The act of securing a "solid waste facility" after it or any portion of it has ceased receiving "solid waste" for "storage," "treatment," or "disposal" in order to satisfy the condition of registration and other requirements of this regulation.

Commenced Construction

The "owner" or "operator" of a "solid waste facility" has obtained all necessary preconstruction approvals or permits required by applicable federal and Commonwealth of Puerto Rico "solid waste" control laws and regulations, and either has:

1. Begun, or caused to be begun, a continuous program of physical "on-site" construction of such facility, or
2. Entered into a binding agreement or contractual obligation to undertake a program for construction of such facility, to be completed within a reasonable time, which cannot be canceled or modified without substantial loss to the "owner" or "operator."

Compactor

A machine that reduces the volume of "solid waste" by usually forcing it into a "container" for "transportation," "storage," or "disposal."

Composting

A controlled, microbial decomposition of organic waste yielding a nuisance-free product of potential value as a soil conditioner.

Confined Aquifer

An "aquifer" bounded above and below by impermeable beds or by beds of distinctly lower permeability than the "aquifer" itself.

Container

Any portable device in which "solid waste" can be "stored," "transported," "treated," "disposed of," or otherwise handled.

Contamination

The significant degradation of naturally occurring water, air, or soil quality either directly or indirectly as a result of man's activities in violation of applicable rules and regulations.

Contingency Plan (or "Emergency Plan")

A document setting out an organized, planned, and coordinated course of action to be followed in case of fire, explosion, or release of "solid waste" which could threaten human health or the environment.

Crops for Direct Human Consumption

Crops that are consumed by humans without processing to minimize pathogens prior to distribution to consumers.

Designated Hazardous Solid Waste Management Facility

Any "hazardous solid waste" "treatment," "storage," or "disposal" facility which:

1. Has received an "EPA" permit (or is a facility with interim status) in accordance with federal regulations or is authorized to operate in a state authorized in accordance with federal regulations or is operating in accordance with this regulation and
2. Has been designated on a "manifest" by a "hazardous solid waste generator."

Destruction (or "Adverse Modification")

The direct or indirect alteration of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat.

Dike

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

Discarded Material

Any material which is considered discarded if it is abandoned by means of:

1. "Disposal;"
2. "Burning" or "incinerating," except where the material is being burned as a fuel for the purpose of recovering usable energy; or
3. Being physically, chemically, or biologically "treated" (other than "burned" or "incinerated") in lieu of or prior to being "disposed of."

Discharge

The accidental or intentional "spilling," leaking, pumping, pouring, emitting, emptying, or dumping of "solid waste" into or on any land or water.

Disposal

The "discharge," deposit, injection, dumping, "spilling," leaking or placing of any "solid waste" into or on any land or water so that it or any constituent thereof may enter the environment or be emitted into the air or discharged into any body of water, including "ground water."

Elementary Neutralization Unit

Any device which:

1. Is used for neutralizing waste which is "hazardous solid waste" only because it exhibits corrosivity characteristics defined in Section 604 (B) of this regulation or is listed pursuant to Rule 608 of this regulation only for that reason, and
2. Meets the definition of "tank," "container," "transport vehicle," or "vessel" in this rule.

Emergency Plan (See "Contingency Plan.")

EPA

The United States Environmental Protection Agency.

EPA Hazardous Waste Number

The number assigned by "EPA" to each "hazardous solid waste" listed in 40 CFR Part 261, Subpart D, and to each characteristic identified in this regulation and in 40 CFR Part 261, Subpart C.

EPA Identification Number

The number assigned by "EPA" to each "generator," "transporter," and "treatment," "storage," or "disposal" facility.

EQB (See "Board.")

Equivalent Testing Method

Any testing or analytical method which the "Board" determines to be functionally equivalent or superior to the method specified.

Existing Solid Waste Facility

Any "solid waste facility" which was in operation, or for which the owner or operator has "commenced construction," on or before the effective date of this regulation.

Food-Chain Crops

Crops grown for human consumption, including tobacco, or crops grown as feed for animals whose products are in turn consumed by humans.

Food Waste

Organic or "putrescible" waste resulting from the handling, processing, storage, sale, preparation, cooking, serving, or consumption of food.

Freeboard

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

Free Liquid

Liquid which readily separates from the solid portion of a waste under ambient temperature and pressure.

Fugitive Emissions

Atmospheric emission which emanates from sources other than stacks, ducts, or vents (i.e., from a "non-point source").

Ground Water

Water below the land surface in the "zone of saturation."

Hazardous Solid Waste

A. Any "solid waste" which is designated as hazardous by the "Board" or which is not excluded by Subpart B of this definition and which is listed as a "hazardous solid waste" pursuant to Rules 607 and 608 (including mixtures of "solid waste" and of the "hazardous solid waste" so listed) or which exhibits any of the characteristics of "hazardous solid waste" identified in Rule 604.

Any "solid waste" which is "hazardous solid waste" and which has not been determined to be non-hazardous pursuant to Section 208(G) remains a "hazardous solid waste" even though, as a result of "storage" or "disposal" or as a result of dilution, it no longer exhibits the characteristics established in Rule 604.

All materials produced from "hazardous solid waste," but that no longer are a "solid waste" (as defined in this rule),

are also no longer a "hazardous solid waste."

B. The following "solid waste" is not "hazardous solid waste" unless so designated by the "Board":

1. "Household waste," including but not limited to "household waste" that has been collected, "transported," "stored," "treated," "disposed," recovered, or re-used.
2. "Solid waste" generated by the growing and harvesting of agricultural crops and by the raising of animals, including manures which are returned to the soil as fertilizers.
3. "Mining overburden returned to the mine site."
4. Ash waste generated from the combustion of coal or other fossil fuels, including flue gas emission control waste.
5. Drilling fluids, produced waters, and other waste associated with exploration, development, or production of crude oil, natural gas, or geothermal energy.

Hazardous Solid Waste Constituent

A constituent which is designated as hazardous by the "Board" or which either caused the "EPA" Administrator to list a "hazardous solid waste" in 40 CFR Part 261, Subpart D, List of Hazardous Waste, or which is listed in 40 CFR 261.24, Table I, but in both cases, only after the list, or any change thereto, has been approved by the "Board."

Hazardous Solid Waste Disposal Facility

A "solid waste disposal facility" or part thereof at which "hazardous solid waste" is intentionally placed into or on any land where the waste will remain after the "closure" of the facility.

Hazardous Solid Waste Facility

Any "solid waste facility" for the "treatment," "storage," and final "disposal" of "hazardous solid waste," including but not limited to facilities such as:

1. "Hazardous solid waste landfills,"
2. "Chemical fixation" process facilities,
3. "Land treatment facilities,"
4. "Incinerators" ("on-site" and central plants),
5. "Thermal treatment,"
6. "Surface impoundments,"
7. Resource recovery facilities,
8. Chemical, physical, and biological "treatment" facilities, and
9. "Tanks."

Hazardous Solid Waste Generation

The act or process of producing "hazardous solid waste."

Hazardous Solid Waste Generator

Any "person," by site, whose act or process produces "hazardous solid waste" identified or listed in this regulation.

Hazardous Solid Waste Landfill

A "hazardous solid waste disposal facility" operated in accordance with the requirements of this regulation, and which is not a "land treatment facility," a "surface impoundment," or an "injection well."

Hazardous Solid Waste Management

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

Hazardous Solid Waste Substance or Material

A substance or material which:

1. Has been so designated by the Board or
2. Has been determined by the United States Secretary of Transportation to be capable of posing an unreasonable risks to health, safety, and property when transported and which has been designated under

49 CFR 171.8 and 173, as amended, but only after the designation, or any change to prior designations, has been approved by the Board.

Hazardous Solid Waste Storage

The holding of "hazardous solid waste" for a temporary period at the end of which the waste is "treated," "disposed of," or "stored" elsewhere.

Household Waste

Any waste material generated in residences, including but not limited to garbage, trash, and sanitary waste in septic tanks.

Inactive Portion

That portion of a facility which is not operated after the effective date of this regulation. (See also "Closed Portion" and "Active Portion.")

Incineration (See "Burning.")

Incinerator

An enclosed device using controlled flame combustion to thermally degrade "solid waste."

Incompatible Waste

A "hazardous solid waste" which is unsuitable for:

1. Placement in a particular device or facility because it may cause corrosion or decay of containment materials (e.g., "container" liners or "tank" walls) or
2. 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.

Incorporated into the Soil

Injection of "solid waste" beneath the surface of the soil or mixing of it with surface soil.

Increments of Progress

The steps to be taken by the "owner" or "operator" to bring a "solid waste facility" into compliance with applicable rules and regulations and with all conditions pursuant thereto imposed by the "Board," as specified in an approved compliance plan or in any other legally binding or enforceable document issued by the "Board."

Individual Generation Site

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

Injection Well

A well through which fluids are injected. (See also "Underground Injection.")

International Shipment

The transportation of "hazardous solid waste" into or out of the jurisdictions of the United States, the Commonwealth of Puerto Rico, and the U.S. Virgin Islands, but not the transportation of "hazardous solid waste" between these jurisdictions.

Junk Vehicle

A motor vehicle, as defined by Law No. 141 of July 20, 1960, as amended, or a trailer, or air or maritime transport, in whole or part, that is incapable of being operated and has been abandoned.

Land Treatment Facility

Any "solid waste facility" or part thereof at which "solid waste" is applied onto or "incorporated into the soil." Such facilities are "solid waste disposal facilities" if the waste remains there after "closure."

Leachate

Liquid that has percolated through, or drained from "solid waste" and that contains soluble, partially soluble, suspended, or miscible materials or components removed from such waste.

Liner

Any continuous layer of natural or man-made materials placed on the bottom or sides of a "surface impoundment," "landfill," or landfill cell, which restricts the downward or lateral migration of "solid waste," or its "constituents," or "leachate" from the impoundment or landfill.

Lower Explosive Limit

The lowest percent, by volume, of a mixture of explosive gases which will propagate a flame in air at twenty-five (25) degrees Centigrade and atmospheric pressure.

Manifest

The document provided by the "Board" for identifying the quantity and composition, and the origin, routing, and

destination of "hazardous solid waste" being transported for "treatment," "storage," or "disposal."

Manifest Document Number

The serially increasing number assigned to the "manifest" by the "generator" for recording and reporting purposes.

Manufacturing or Mining By-Product

A material that is not one of the primary products of a particular manufacturing or mining operation, is a secondary and incidental product of the particular operation, and would not be solely and separately manufactured or mined by the particular manufacturing or mining operation. The term does not include an intermediate manufacturing or mining product which result from one of the steps in a manufacturing or mining process and is typically processed through the next step of the process within a short time.

Mining Overburden Returned to the Mine Site

Any 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.

Modification

Any physical change to a "solid waste facility" or change in the method of operation of such a facility that results in

an increase in the amount or type of "solid waste" that is "generated," "transported," "stored," "treated," "disposed of," or otherwise handled.

"Modification" does not include routine maintenance, repair, and equipment replacement, nor does change in the method of operation (unless previously limited by permit conditions) or change of ownership of the facility.

Monitoring

All actions taken to inspect and collect information relating to compliance with this regulation or with permits issued pursuant to it.

Municipality

Any government subdivision created in accordance with Article 6, Section I, of the Constitution of the Commonwealth of Puerto Rico and pursuant to Section 640, Title 21 of the Annotated Laws of Puerto Rico.

New or Modified Solid Waste Facility

Any "solid waste facility" where "construction commenced" or "modification" occurred after the effective date of this regulation.

Non-Attainment Area

Any area in which ambient air quality is shown by "monitoring," or by air quality modelling (or by any other method approved by the "Board") to exceed any National Ambient Air Quality Standard established under the Clean Air Act for any pollutant.

Non-Hazardous Solid Waste Facility

Any "solid waste facility" for the "storage," "treatment," or "disposal of" only non-hazardous solid waste, including, but not limited to, facilities such as:

1. Transfer stations,
2. "Compactors" (on-site and central plants),
3. Shredders (on-site and central plants),
4. "Incinerators" (on-site and central plants),
5. Pyrolysis plants (on-site and central plants),
6. "Sanitary landfills,"
7. Salvage yards,
8. Pulverizers,
9. "Compost" plants, and
10. Recycling plants

Non-Hazardous Solid Waste Generating Activity

Any act, event, or activity that produces, or results in, or generates a substantial quantity of non-hazardous solid

waste or that causes problems related to waste disposal, including but not limited to the following:

1. Demolition of buildings;
2. Construction of industrial or commercial developments;
3. Utilization of recreation parks, camp grounds, and similar areas; and
4. Conduct of activity to salvage reusable materials.

Non-Hazardous Solid Waste Management

The systematic control and administration of the "storage," source separation, collection, "transportation," transfer, processing, "treatment," and "disposal" of non-hazardous "solid waste."

Non-Hazardous Solid Waste Storage

The holding of non-hazardous "solid waste" after its generation.

Non-Point Source

Any source of water effluent or air emissions which is not a "point source." (See also "Fugitive Emissions.")

One-Hundred Year Floodplain

Lowlands which are or would be inundated by the "base flood," including relatively flat areas, adjoining inland and coastal waters, and floodprone areas of offshore islands.

On-Site

The same or geographically contiguous property, which may be divided by a public or private right-of-way, provided that if public access to the right-of-way is not controlled, the entrance and exit between the properties must be at a crossroads intersection so that access is by crossing, as opposed to going along, the right-of-way. Non-contiguous properties owned by the same "person," but connected by a right-of-way which he controls and to which the public does not have access, is also considered "on-site" property.

Open Burning

The "burning" of "solid waste," "agricultural waste," or "plant life" without:

1. Control of combustion air to maintain adequate temperature for efficient combustion,
2. Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and
3. Control of the emission of the gaseous combustion products.

Operator

Any "person" responsible for the overall operation of a "solid waste facility."

Other Waste Material

Any solid, liquid, semi-solid, or contained gaseous material, resulting from industrial, commercial, mining, or agricultural operations, or from community activities which:

1. Is "discarded material" or is material being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded;
2. Has served its original intended use and sometimes is discarded;
3. Is a "manufacturing or mining by-product" and sometimes is "discarded;" or
4. Is any other waste, including but not limited to "bulky waste," "agricultural waste," "plant life," "junk vehicles," and "food wastes."

Owner

Any "person" who owns a "solid waste facility" or part of such a facility.

Partial Closure

The "closure" of a discrete part of a facility in accordance with this regulation.

Particulate Matter

Any material, except water, in solid or liquid form sufficiently subdivided into small particles to be suspended or carried by currents of air or other gases.

Periodic Application of Cover Material

The application and compaction of soil or other suitable material over "disposed" of "solid waste" at the end of each operating day or at such frequencies and in such a manner as to eliminate the risk of fire and to prevent the access of "vectors" to the waste.

Person

Any natural or judicial entity, or group of entities, private or public, that has the capacity to undertake any activity controlled by this regulation, including federal and state agencies, municipalities, and public or private corporations, associations, cooperatives, trusts, and partnerships.

pH

The logarithm of the reciprocal of the hydrogen ion concentration.

Pile

Any non-containerized accumulation of solid, nonflowing waste that is used for "treatment" or "storage."

Plant Life

Vegetation such as trees, tree branches, leaves, yard trimmings, shrubbery, grass, weeds, and crops, except sugar cane leaves while on the stalk.

Point Source

Any discernible, confined, and discrete conveyance, including, but not limited to the following:

1. For point sources of water effluent, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated feeding operation, vessel, or other floating craft from which pollutants are or may be discharged; and
2. For point sources of air emissions, any stack, duct, or vent from which pollutants are or may be discharged.

Public Airport

Any airport open to the public without prior permission and without restrictions other than those resulting from the physical limitations of available airport facilities.

Publicly Owned Treatment Work (POTW)

Any device or system used in the treatment (including recycling or reclamataion) of municipal sewage or industrial waste of a liquid nature which is owned by a "state" or "municipality" (as defined in Section 502(4) of the Clean Water Act). This definition includes sewers, pipes, or other conveyance only if they convey waste water to a POTW providing treatment.

Putrescible Material

Material capable of being decomposed by anaerobic microorganisms with sufficient rapidity to cause a nuisance such as odors and gases.

Representative Sample

Any sample of a universe or whole which can be expected to exhibit the average properties of that universe or whole.

Root Crop

Plants with usable or marketable parts that are grown below the surface.

Run-Off

Any rainwater, "leachate," or other liquid that drains over land from any part of a "solid waste facility."

Run-On

Any rainwater, "leachate," or other liquid that drains over land onto any part of a "solid waste facility."

Sanitary Landfill

A method of disposing of non-hazardous "solid waste" on land by spreading it in layers, each compacted to the smallest practical volume and each separated by the "periodic application of cover material," so as to minimize health and environmental hazards and disagreeableness to the senses.

Sensitive Area

Any area that is susceptible to environmental damage, including mangroves, wetlands, floodplains, critical habitats of endangered species, and recharge zones of all "aquifers" that are or may be a source of drinking water.

Sludge

Any solid, semi-solid, or liquid waste generated from "municipal," commercial, or industrial wastewater treatment plants, water supply treatment plants, or air pollution control facilities, or any other such wastes having similar characteristics and effect, but not treated effluent discharged from a wastewater treatment plant.

Soil pH

The "pH" value obtained by sampling soil to the depth of cultivation or solid waste placement, whichever is greater, and analyzing it by the electrometric method. ("Methods of Soil Analysis, Agronomy Monograph No.9," C.A. Block, ed., American Society of Agronomy, Madison, Wisconsin, pp 914-926, 1965).

Solid Waste

Any garbage, refuse, sludge, or any "other waste material," including all "hazardous solid waste," except the following:

1. Domestic sewage (or any mixture of domestic sewage and other waste) that passes through a sewer system to a "publicly owned treatment work" for treatment;
2. Industrial wastewater discharges that are "point source" "discharges" subject to regulation under the Clean Water Act, as amended;
3. Irrigation return flows; and
4. Source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended.

Solid Waste Boundary

The outermost perimeter of the area in which "solid waste" will have been "disposed of" at the "closure" of any "solid waste disposal facility."

Solid Waste Disposal Facility

Any "solid waste facility" or part thereof at which "solid waste" is intentionally placed into or on any land or water and at which waste will remain after "closure" of the facility.

Solid Waste Facility

Any land or appurtenances or watercraft or any other place used for the collection, "treatment," "storage," or "disposal" of "solid waste." An individual "solid waste facility" may have one or more operational units for handling "solid waste," but is considered a single or individual facility if these units are located on the same property or on contiguous property. "Publicly owned treatment plants" that do not receive "solid waste," as defined above, are not "solid waste facilities."

Solid Waste Pollution

The presence in and on the land or water of any "solid waste" in such quantity, or of such nature and duration, or under such conditions as is or could be injurious to human health or welfare, to animal or plant life, or to property, including surface water or ground water; or which interferes with the enjoyment of such life or property; creates air contaminants; or causes violations of applicable air or surface

water quantity standards; or causes or contributes to significant contamination of any underground source of private or public water supply.

Solid Waste Service

Any public or private operation involving the handling of "solid waste" including the collection, "transportation," "storage," "treatment," or "disposal" of "solid waste."

Solid Waste Spill

Any accidental or intentional unauthorized "discharge" or release of "solid waste" onto land or water.

Solid Waste Storage Facility

Any "solid waste facility" at which "solid waste" is kept in "storage."

Solid Waste Treatment

Any method, technique, or process, designed to change the physical, chemical, or biological character or composition of any "solid waste" so as to neutralize such waste; or so as to recover energy or material resources from the waste; or so as to render such waste non-hazardous or less hazardous, safer to "transport," "store," or "dispose of," or suitable for recovery or "storage," or reduced in volume.

Surface Impoundment

Any "solid waste facility" or part of a "solid waste facility" which consists of a natural topographic depression, man-made excavation, or "diked" area formed primarily of earthen materials which is designed to hold an accumulation of liquid waste or waste containing "free liquid," and which is not an "injection well" (e.g., holding, storage, settling, and aeration pits, ponds, and lagoons).

Taking

The harassing, harming, pursuing, hunting, wounding, killing, trapping, capturing, or collecting of certain plant, fish, or wildlife species or attempting to engage in such conduct.

Tank

Any stationary device designed to contain an accumulation of "solid waste" which is constructed primarily of non-earthen materials such as wood, concrete, steel, or plastic which provide structural support.

Thermal Treatment

The "treatment" of "solid waste" in a device which uses high temperatures as the primary means to change the chemical,

physical, or biological character or composition of waste, including but not limited to process such as:

1. Incineration,
2. Molten salt destruction,
3. Pyrolysis,
4. Calcination,
5. Wet air oxidation, and
6. Microwave discharge.

Totally Enclosed Treatment Facility

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

Transfer Station

An intermediate "solid waste" "storage," processing, or handling facility for transferring loads of "solid waste" to another transportation unit, typically one having a larger capacity.

Transportation

Transferring of "solid waste" from the site where it was generated to any intermediate location for "storage" or "treatment" or to the final disposal site.

Transporter

Any person engaged in the off-site "transportation" of "hazardous solid waste" by air, rail, highway, or water.

Transport Vehicle

Any motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, railroad freight car, etc.) is a separate transport vehicle.

Underground Drinking Water Source

An "aquifer" supplying drinking water for human consumption or one in which the "ground water" contains less than 10,000 mg/l of total dissolved solids.

Underground Injection

The subsurface emplacement of fluids, through a bored, drilled, or driven well or through a dug well, where the depth of the dug well is greater than the largest surface dimension. (See also "Injection Well.")

Vector

Any living insect or other anthropod or animal (not human) which can transmit infectious diseases to humans or animals.

Vessel

Includes every description of watercraft or any other floating craft used or capable of being used as a means of transportation or for storage on the water.

Washout

The carrying away of "solid waste" by waters of a "base flood."

Wastewater Treatment Unit

A device which:

1. Is a part of a wastewater treatment facility which is subject to regulation under Section 402 or Section 307(b) of the Clean Water Act, and
2. Receives and "treats" or "stores" an influent wastewater which is a "hazardous solid waste" as defined in this rule; or generates and accumulates a wastewater treatment "sludge" which is a "hazardous solid waste" as defined in this rule; or "treats" or "stores" a wastewater treatment "sludge" which is a "hazardous solid waste" as defined in this rule, and
3. Meets the definition of "tank" in this rule.

Water (Bulk Shipment)

The bulk "transportation" of "hazardous solid waste" which is loaded or carried on board a "vessel" without "containers" or labels.

Zone of Aeration

The zone between the ground surface and the water table.

Zone of Saturation

That part of the earth's crust in which all voids are filled with water.

RULE 103 - ABBREVIATIONS

The following abbreviations are used in the text of this regulation:

- ASTM - American Society of Testing and Materials.
- CFR - Code of Federal Regulations.
- DOT - U.S. Department of Transportation.
- EQB - The Environmental Quality Board of the Commonwealth of Puerto Rico.
- EPA - U.S. Environmental Protection Agency.

- SIC - Standard Industrial Classification.
- OSHA - U.S. Occupational Safety and Health Administration.
- POTW - Publicly Owned Treatment Work.
- NRC - National Response Center.
- OSC - On-Scene Coordinator.
- USGS - U.S. Geological Survey.

PART II
GENERAL PROVISIONS

PART II - GENERAL PROVISIONS

RULE 201 - TITLE

This set of rules shall be known as the "Regulation for the Control of Hazardous and Non-Hazardous Solid Waste."

RULE 202 - PURPOSE, SCOPE, AND APPLICABILITY

This part establishes general requirements for managing and monitoring solid waste facility activities. It provides general rules regarding revisions to this regulation and regarding public participation. It also provides general rules for interpreting the regulation and for enforcing it. The rules in this part apply to all solid waste facilities, including those which handle hazardous solid waste. Additional requirements regarding hazardous solid waste facilities may be found in other parts of this regulation.

RULE 203 - EFFECTIVE DATE OF REQUIREMENTS

A. General Rule.

The effective date of this regulation is November 13, 1980. All deadlines established in this regulation, and in any revision to it, by reference to the effective date of this regulation are determined by reference to that date. All requirements in this regulation that were also

requirements of the earlier Regulation for the Control of Solid Waste have been in continuous effect since the November 4, 1973 effective date of that regulation. All new requirements in this regulation on its November 13, 1980 effective date became effective on that date. Except as provided in Section 208(E), all additional requirements established by revisions to this regulation do not become effective until the effective date of the revision.

B. Exceptions.

Requirements that, by their terms, are not effective until a specific date do not apply until that date. Requirements for which a Rule 909 dispensation or a Rule 910 emergency dispensation have been granted are effective according to the terms of the dispensation. Requirements within the scope of Rule 908 initial compliance plans only become effective eighteen (18) months after the effective date of this regulation (i.e., May 13, 1982). Thereafter, they are immediately effective unless they are specifically covered in a proposed initial compliance plan, in which case they become effective according to the terms of the plan.

C. Effect

As provided in Rule 302, operation in violation of any requirement after its effective date is prohibited.

RULE 204 - MONITORING, RECORDKEEPING, REPORTING, SAMPLING, AND TESTING METHODS

A. Monitoring, Recordkeeping, and Reporting.

Except as provided below, the Board will require the owner or operator of any solid waste facility to provide for the monitoring of its activities. Such monitoring will require the owner or operator to install, use, and maintain sufficient weighing and sampling and testing equipment to:

1. Monitor the solid waste stream as it enters and leaves the facility and,
2. If the facility is for solid waste disposal, to either monitor leachate and surface and ground water quality or, with prior approval of the Board, to implement an equivalent monitoring system acceptable to the Board.

The Board will also require the owner or operator of any solid waste facility to establish and maintain adequate records of its activities and to make periodic reports on them to the Board.

The Board will, as a minimum, require the following:

1. For non-hazardous solid waste incinerators having a capacity greater than 6,000 pound per hour, daily records shall be kept of the total weight of material incinerated and of the resulting residue. Records will also be required of the hours of operation.

The Board will not require the owners or operators of non-hazardous solid waste incinerators and compactors having a capacity less than 6,000 pounds per hour to monitor the solid waste stream as it enters and leaves the facility or to monitor leachate or surface or ground water quality. It may, however, require other monitoring, recordkeeping, and reporting.

2. For sanitary landfills, daily operational records shall be kept indicating at least the following:
 - a. Total waste received during each shift, including the type, weight, and volume of solid waste;

- b. Equipment used for final disposal of the waste;
- c. Portion of the landfill used (determined by cross section and survey);
- d. Quantity of cover material used; and
- e. Cost of operation.

A quarterly report which includes and summarizes this information shall be prepared and sent to the Board.

B. Test Methods.

All tests shall be made and the results calculated in accordance with test methods and procedures specified in EPA regulations 40 CFR Parts 141 or 257 or, if none is so specified, as provided for in ASTM specifications.

All tests and calculations shall be certified by an engineer licensed in Puerto Rico. All chemical analyses shall be certified by a chemical engineer or chemist licensed in Puerto Rico.

C. Certification of Records and Reports.

All records and reports required by this regulation shall be submitted together with the sworn statement of the owner or operator or of a high-ranking official representing the person or entity that owns or operates the facility. Such sworn statement shall

attest to the truth, correctness, and completeness of such records and reports. If the owner or operator is a corporation, the high-ranking official shall be the corporate President, a Vice-President reporting directly to the President, the highest ranking corporate officer with an office in Puerto Rico, or a duly authorized representative upon presentation of delegation documents. An official of equivalent rank may attest to records and reports of organizations other than corporations.

D. Presentation of Test Results.

All test results and quantities presented in reports and records shall be presented in conventional metric units. They shall also be presented in such a manner as to show the relationship between measured values and required limits established by this regulation or by permits issued pursuant thereto.

E. Sampling Equipment.

If representatives of the Board desire to obtain test samples of any solid waste facility or non-hazardous solid waste collection service or

generating activity, the owner or operator of any such facility shall provide whatever equipment may be necessary to obtain proper samples.

F. Sampling and Testing Orders.

In lieu of having its representatives obtain samples, the Board may require the owner or operator of a solid waste facility or solid waste generating activity to conduct, at its own expense, sampling or testing in accordance with this regulation. If the Board requests such sampling or testing, the owner or operator shall, in writing and at least ten (10) days prior to conducting such sampling or testing, notify the Board of the specific date, time, and place where such sampling or testing is to take place.

G. Disruptions.

If the normal operation of any solid waste facility or non-hazardous solid waste collection service or generating activity is significantly disrupted (for example, as a result of equipment breakdown, accident, or service interruption) and if the disruption prevents compliance with this regulation or any permits issued pursuant thereto, the owner or operator shall immediately report such disruption to the Board and provide it with all pertinent

available facts, including the estimated duration of the disruption and all measures being taken to overcome it. The disruption will also be reported to all agencies with designated emergency responsibility.

This immediate notice shall be confirmed by a written report to the Board not later than two (2) weeks after the onset of the disruption. The confirming report shall provide specific information concerning the disruption, including the date and hour of occurrence, the cause of the disruption, and a description of corrective measures taken or to be taken.

The occurrence of a disruption in the normal operation of a solid waste facility or non-hazardous solid waste collection service or generating activity does not relieve the owner or operator from the responsibility of complying with all provisions of this regulation or any permits issued pursuant thereto.

Not later than two (2) weeks after the elimination or correction of any significant disruption preventing compliance, the owner or

operator shall submit a written report to the Board that will include:

1. A certification confirming that the disruption has been corrected and specifying the date of correction and the method of establishing that compliance was achieved;
2. A description of the corrective measures that are being undertaken to avoid similar disruptions in the future; and
3. Pictures of any equipment or controls which failed, whenever available.

RULE 205 - RIGHT OF ENTRY

Representatives of the Board, upon presentation of their credentials and subject to pertinent provisions of the Public Policy Environmental Act (Law No. 9 of June 18, 1970, as amended) shall:

1. Have the right to entry, without prior notice, to, upon, or through any premise on which a solid waste facility or non-hazardous solid waste collection service or generating activity is located or in which any records required to be maintained under this regulation are located;

2. At reasonable times, have access to inspect and copy any records required by the Board or by this regulation or to inspect and review monitoring equipment or test procedures used for storage, collection, transportation, treatment, or disposal of solid waste;
3. Be able to inspect and obtain samples of any solid waste, including samples from any vehicles used for the transport of such waste; and
4. Be able to obtain samples from ground-water and leachate monitoring systems.

RULE 206 - DATA TO BE AVAILABLE TO THE PUBLIC

Any information received or obtained by, or to be submitted to the Board, as required by this regulation or any permits issued pursuant thereto, will be available to the public for inspection and copying except when the Board has determined the information to be confidential. The Board will only consider information to be confidential if it might substantially adversely affect the competitive position of the person providing the information.

Any person who submits information to the Board may assert a claim of confidentiality covering all or part of that information by declaring, in writing, all the specific reasons for that claim. If no claim of confidentiality accompanies the information when it is submitted to the Board, it will be made available to the public without further notice.

Confidentiality of information does not justify its being withheld from the Board, including its officials and its employees. Confidentiality of information also does not prevent the Board, including its officials and its employees, from making whatever confidential use of such information may be necessary for implementation of this regulation, including use in enforcement proceedings and including the sharing of such information with EPA upon request without restriction.

RULE 207 - OPERATING PLANS

Every solid waste facility shall be operated in accordance with a written operating plan that has been submitted to and approved by the Board. Each operating plan shall be prepared in accordance with this regulation and with any subsequent guidelines issued by the Board.

Each operating plan will provide for emergency procedures designed to prevent the occurrence of accidents or disruptions and to respond to them to avoid or to reduce injury to human health or environmental damage. As a minimum, emergency procedures shall include those required by EPA for Spill

Prevention, Control, and Countermeasure Plans pursuant to Section 311 of the Clean Water Act. It shall also include the names, addresses, and phone numbers of all persons designated to act as emergency coordinators; a list with physical descriptions of the condition and capability of emergency equipment; an evacuation plan; and an outline of the program for training employees in emergency procedures.

A copy of the emergency procedures in the operating plan shall be filed with the Board; the Department of Health Regional Office; the local Police, Civil Defense, and Fire Departments; and the local or regional hospital.

RULE 208 - REVISION OF THIS REGULATION

A. Effective Date of Revisions.

Amendments to this regulation may be adopted by the Board and shall become effective thirty (30) days after the date they are filed with the Department of State, in conformity with the Rules and Regulations Act of 1958 (Law No. 112 of June 30, 1957, as amended).

B. Petitions for Revision.

Any person may petition the Board to amend, supplement, or revoke any part of this regulation. Each petition must be submitted to the Board by certified mail and must include the following:

1. The petitioner's name and address;
2. A statement of the petitioner's legal interest in the proposed revision;
3. A complete description of the proposed revision including suggested regulatory language; and
4. A detailed statement of the need and justification for the proposed revision, including any supporting tests, studies, or other information.

C. Revisions Due to Changes in Federal Regulations.

Revisions of federal regulations referred to in this regulation (such as the federal "Maximum Contaminant Levels" contained in the National Interim Primary Drinking Water Regulations, 40 CFR Part 141, and such as the federal hazardous solid waste testing methods, including revisions to "Test Methods for the Evaluation of Solid Wastes: Physical/Chemical Methods," SW-846) shall become effective as part of this regulation only upon their adoption by the Board.

D. Notice and Public Hearing on Revisions to this Regulation.

The Board shall not adopt any revision to this regulation without notice and a public hearing, except that further notice and public hearings will not be required when the Board modifies a pending revision to this regulation that has already been considered in a public hearing when that modification does not significantly alter or change the concept or intent of the revision that was considered at the public hearing.

E. Effect of Pending Revisions.

Notwithstanding any other provision of this regulation, while any proposed revision to this regulation is pending, the Board may not grant any permit or approve any compliance plan that could not be granted if the proposed revision were already in effect. The Board may, however, issue a temporary permit to operate under Rule 912(M).

For purposes of this section, a revision to this regulation is pending:

1. From the date of the first publication of a notice of public hearing on the revision and
2. Until 120 days after the close of all public hearings on the revision, or until the effective date of the amendment, or until the

date of final Board action rejecting or withdrawing the revision, whichever first occurs.

F. Effect on Valid Permits, Compliance Plans, and Dispensations.

Revision to this regulation shall not impair the validity of any permit, compliance plan, or dispensation lawfully granted or approved before the effective date of such revision, except the Board may revoke any such permit, compliance plan, or dispensation or may impose additional conditions thereon when the Board finds such action necessary to attain timely compliance with any new or revised regulation. In such cases, the affected solid waste facility or solid waste generating activity will have an opportunity for an administrative hearing before the Board. Board action to revoke any permit, compliance plan, or dispensation to impose additional conditions based on revisions to this regulation shall be taken within 180 days of the effective date of the revision.

G. Petitions for Exclusion of Hazardous Solid Waste Produced at a Particular Facility.

Any person seeking to exclude a hazardous solid waste at a particular generating facility from the list adopted by the Board pursuant to Rules 603, 604, 607, and 608 may petition for a regulatory amendment under Section B of this rule and under this section.

To be successful, the petitioner must demonstrate to the satisfaction of the Board that the waste produced by a particular generating facility does not meet any of the criteria in Section 603(B) under which the waste was listed as a hazardous solid waste.

1. In the case of a hazardous solid waste listed only under Paragraph 603(B)(1), the petitioner must show that the waste does not meet the criteria in that paragraph.
2. In the case of an acutely hazardous solid waste listed under Paragraph 603(B)(2), the petitioner must show that the waste does not meet the criteria of that paragraph and also does not meet the criteria of Paragraph 603(B)(1) and of Paragraph 603(B)(3) when considering the factors listed in that paragraph.

3. In the case of a toxic hazardous solid waste listed under Paragraph 603(B)(3), the petitioner must show that the waste does not meet the criteria of that paragraph and also does not meet the criteria of Paragraph 603(B)(1).
4. In the case of a hazardous solid waste that was never listed under Rule 607 or 608 (pursuant to Section 603(B)) but which once exhibited one of the characteristics in Rule 604, the petitioner must show that the waste no longer exhibits any of the characteristics in that rule.

The procedures for each petition must include the information required in Section B of this rule and any additional information the Board deems necessary to evaluate the petition. It must also contain a certification that the information submitted is true, accurate, and complete.

Any exclusion granted will only apply to the waste generated at the individual facility covered by the demonstration and will not apply to waste from any other facility.

The Board may exclude only part of the waste for which the demonstration is submitted.

RULE 209 - MANDATORY PERIODIC HEARINGS ON THIS REGULATION

The Board will periodically hold public hearings to consider possible revisions to this regulation. The first such public hearing shall be held no later than February 15, 1983, and each subsequent hearing shall be held not later than three (3) years after the close of the preceding one. The Board may, but need not, propose revisions to this regulation for consideration at any such hearing. Notice of these hearings will be given as provided in Section 210(B).

RULE 210 - PUBLIC HEARINGS AND PUBLIC NOTICE

A. Public Hearings.

The Board will hold a public hearing before making any revision to this regulation or before granting a dispensation. The Board may also hold a public hearing on any permit application when requested to do so by any person with an interest in the permit or when it determines that a public hearing would aid it in evaluating the permit application.

The Board will not hold a public hearing without giving adequate public notice. If it decides to hold a public hearing on a matter for which a notice has already been published, but for which no hearing was announced, it will publish another public notice to announce the hearing.

B. Public Notice.

All public notices regarding matters pending before the Board shall specify the date, time, and place where background documents regarding the pending matter will be available for public inspection, including any preliminary determinations by the Board. All public notices will indicate the period during which interested persons may submit written comments or requests for a public hearing. In case of public notices regarding hearings, the notice will also specify the date, time, and place of hearing.

All public notices shall be published at least forty-five (45) days prior to any final determination by the Board regarding the subject matter of the notice, unless the Board determines that the public interest requires it to make a final determination in a shorter period of time.

Public notices will be published in at least two newspapers of general circulation in Puerto Rico

and, when given in response to an application, will be mailed to the applicant. The Board may also further publish any notice in any manner it deems appropriate.

Whenever the public notice relates to an application to the Board, the applicant shall pay to the Board the cost of the public notice prior to its publication.

C. Report on Matters Considered at Public Hearings.

The Board, after holding a public hearing, will issue a resolution describing its final decision, if any, regarding the proposed action. Within forty-five (45) days of the Board's final decision, copies of this resolution shall be mailed to all the participants and shall be available to the public.

RULE 211 - NOTICE OF VIOLATION AND COMPLIANCE ORDERS

Whenever the Board finds that one or more provisions of this regulation, or any permit issued pursuant thereto, is being or has been violated, the Board shall issue a written notice of violation to the alleged violator.

All notices of violation shall specify the violation and, where compliance has not yet been achieved, the time limit granted for attaining compliance. The notice will also specify any requirements that the Board deems necessary to achieve

compliance.

If the violation persists beyond the time limit granted for attaining compliance, the Board will either issue a compliance order or take any other action pursuant to the Public Policy Environmental Act (Law No. 9 of June 18, 1970, as amended).

**RULE 212 - CLOSURE OF A SOLID WASTE FACILITY OR GENERATING
ACTIVITY**

The Board may order the closure or compel the shutdown of a solid waste facility or non-hazardous solid waste generating activity or collection service which has been found not to be in compliance with this regulation or any permit issued pursuant thereto if a violation persists after the time limit granted under a compliance order or other enforcement action taken by the Board. Unless immediate closure is necessary to protect public health, the owner or operator of the affected facility will be given an opportunity for an administrative hearing before the Board. A closure order will remain in effect until the affected solid waste facility or non-hazardous solid waste generating activity or collection service is found to be in compliance with this regulation and with all permits issued thereunder.

RULE 213 - PENALTIES AND PERMIT REVOCATIONS

Any violation of this regulation or of permits issued pursuant to it constitutes a misdemeanor and is subject to penalties established by the Public Policy Environmental Act.

The Board may also, as a result of a violation of this regulation or of permits issued pursuant thereto, suspend, revise, or terminate any permit or dispensation issued by it under this regulation.

RULE 214 - PUBLIC NUISANCE

Nothing in this regulation shall be construed to authorize the creation or maintenance of a public nuisance as defined in Article 329 of the Penal Code of Puerto Rico, nor shall the prohibition of public nuisances be interpreted as a limit or restriction of the other requirements established in this regulation.

RULE 215 - CITIZEN LEGAL ACTIONS

Nothing in this regulation shall be construed to limit in any way citizen legal actions, as authorized by law.

RULE 216 - OVERLAPPING OR INCONSISTENT PROVISIONS

If a requirement established by any provision of this regulation is either more restrictive or less restrictive than a requirement established by any other law, regulation, standard, or limit established by any duly constituted governmental authority having jurisdiction, the requirement which is more restrictive shall prevail.

RULE 217 - DEROGATION

This regulation amends all previous provisions, resolutions, agreements, or regulations of the Board which may be inconsistent with it.

RULE 218 - SEPARABILITY CLAUSE

If any provision of this regulation is declared illegal or unconstitutional by a court, such declaration will not affect the other provisions of this regulation, each one being considered as separate.

PART III

GENERAL PROHIBITIONS

PART III - GENERAL PROHIBITIONS

RULE 301 - PURPOSE, SCOPE, AND APPLICABILITY

This part establishes general prohibitions concerning the handling of solid waste. Other parts of this regulation contain additional and more specific prohibitions concerning the handling of specific kinds of solid wastes, particularly those which are hazardous.

The rules in this part that refer to solid waste apply equally to solid waste that is hazardous.

RULE 302 - GENERAL PROHIBITIONS

A. General Prohibition Against Solid Waste Pollution.

No person shall cause or permit solid waste pollution (as defined in Rule 102).

B. General Requirement for Compliance with Regulation and Permits.

No person shall cause or permit the generation, storage, collection, treatment, transportation, or disposal of solid waste in violation of requirements established by this regulation, permits issued pursuant thereto, or by other laws or regulations of the Commonwealth of Puerto Rico.

C. General Solid Waste Transport Prohibitions.

No person shall transport any solid waste in such a manner that it may be discharged or spilled onto any public way. All vehicles used for transporting solid waste shall be designed so that the waste may be completely enclosed and securely covered.

D. General Solid Waste Handling Prohibitions.

No person shall cause or permit the storage, collection, treatment, transportation, or disposal of solid waste without taking all practicable measures to control fires, explosions, spills, and releases of noxious materials and odors and to avoid attracting vectors. Solid waste shall be stored, collected, transported, treated, and disposed of in such a way that it does not cause a health hazard, a hazard to public security, a source of offensive odors, or an unsightly accumulation.

E. Places for Handling Solid Waste.

No person shall cause or permit a solid waste spill or an unauthorized discharge of solid waste. Nor shall any person cause or permit the deposit of any accumulation of solid waste from any building or lot or from any public or private sidewalk or driveway in any gutter, street, or other unauthorized place.

Except as provided in Section F, below, no person shall cause or permit the collection, treatment, storage, or disposal of solid waste at any place other than the following:

1. At a solid waste facility authorized by the Board in a permit issued pursuant to this regulation to handle that type of solid waste;
2. Until a permit is issued, at an existing hazardous solid waste facility that submitted a timely and complete application for a permit to the Board; or
3. In a container designed for storage of that kind of solid waste between regular collection schedules and labelled in accordance with this regulation.

F. Additional Places for Handling Non-Hazardous Solid Waste.

In addition to the places described in Section E, the collection, treatment, storage, or disposal of non-hazardous solid waste may occur at the following places:

1. In a public container or in any non-hazardous solid waste collection device designated for such purpose pursuant to a solid waste operating plan approved by the Board;

2. Within the building where such waste originates; or
3. Storage outside of a container when authorized by this regulation.

G. Special Prohibitions Concerning Junk Vehicles and Site Conditions.

1. No person shall cause or permit the abandonment of a junk vehicle.
2. No owner of real property or prime contractor or contractors in charge of a construction site shall maintain such property or construction site in a condition that permits vehicles to pick up mud, dirt, sticky substances, litter, or foreign matter in a manner that would let it be deposited on any street, alley, or other public place.

RULE 303 - OPEN BURNING PROHIBITION

A. General Prohibition Against Open Burning.

Except as provided in Section B, below, no person shall cause or permit the open burning of hazardous or non-hazardous solid waste, including plant life, unless prior authorization is obtained from the

Board. The Board will grant such authorization only in cases of emergency involving a clear danger to public health or safety and only when the open burning can be accomplished in compliance with the Regulation for the Control of Atmospheric Pollution, as amended.

B. Exceptions.

This rule shall not apply to the open burning of:

1. Debris from emergency clean up;
2. Ordnance, including detonation of waste explosives, provided that the owners or operators choosing to open burn or detonate ordnance must do so in accordance with the following table and in a manner that does not threaten human health or the environment;

<u>Pounds of Waste Explosives or Propellants</u>	<u>Maximum Distance from Open Burning or Detonation to the Property of Others</u>
0 - 100	204 meters (670 feet)
101 - 1000	380 meters (1250 feet)
1001 - 10,000	530 meters (1730 feet)
10,001 - 30,000	690 meters (2260 feet)

COMMENT: 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 km/sec at sea level).

3. Flares or afterburners used solely as safety measures or as air pollution control equipment, provided, however, that such use must comply with the Regulation for the Control of Atmospheric Pollution, including Rules 203, 204, and 403, as amended, and with all other applicable rules and regulations.

RULE 304 - GENERAL SOLID WASTE FACILITY PROHIBITIONS

The prohibitions established by this rule apply to all solid waste facilities, except the prohibitions in Section H (which apply only to hazardous solid waste facilities) and except with respect to the facilities listed in Section I (which are excepted from this rule).

A. Prohibition Against Floodplain Siting.

Except for existing solid waste facilities that provide adequate protection, no person shall cause or permit the collection, storage, treatment, or disposal of solid waste in floodplains where it could restrict the flow of the base flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste, so as to pose a hazard to human health, wildlife, or land or water resources.

B. Endangered Species Prohibition.

No person shall cause or permit the collection, storage, treatment, or disposal of solid waste in a manner that could cause or contribute to the destruction or taking of any endangered or threatened species of plants, fish, birds, or wildlife or that could result in or contribute to the destruction or adverse modification of their habitat.

C. Prohibition Against Marine or Surface Water Pollution.

No person shall cause or permit a spill or discharge of pollutants from a solid waste facility into marine or surface waters of the Commonwealth of Puerto Rico.

D. Special Pollutant Prohibitions.

No person shall cause or permit the land treatment of solid waste containing polychlorinated biphenyls or containing cadmium in amounts that exceed the maximum permissible concentrations established by EPA.

E. Disease Vector Prohibition.

No person shall cause or permit the operation of a solid waste facility unless the on-site population

of disease vectors is controlled through the periodic application of cover material or through other techniques, as appropriate, so as to protect public health.

F. Prohibition Concerning Sewage Sludge and Septic Tank Pumpings.

No person shall cause or permit the disposal, application, or incorporation into soil of sewage sludge or septic tank pumpings unless:

1. They are treated by a Process to Significantly Reduce Pathogens, as defined in the following paragraph, prior to application or incorporation;

COMMENT: Processes to Significantly Reduce Pathogens include:

- a. Aerobic digestion: The process is conducted by agitating sludge with air or oxygen to maintain aerobic conditions at residence times ranging from sixty (60) days at fifteen (15) degrees Centigrade to forty (40) days at twenty (20) degrees Centigrade, with a volatile solids reduction of at least 38 percent (38%).
- b. Air drying: Liquid sludge is allowed to drain and dry on under-drained sand beds, or paved or unpaved basins in which the sludge is at a depth of nine (9) inches. A minimum of three (3) months is needed, two (2) months of which temperatures average on a daily basis above zero (0) degrees Centigrade.
- c. Anaerobic digestion: The process is conducted in the absence of air at residence times ranging from sixty (60) days at twenty (20) degrees Centigrade to fifteen (15) days at thirty-five to

- fifty-five (35 to 55) degrees Centigrade, with a volatile solids reduction of at least 38 percent (38%).
- d. Composting: Using the within-vessel, static aerated pile or windrow composting methods, the solid waste is maintained at minimum operating conditions of forty (40) degrees Centigrade for five (5) days, during four (4) hours of which time the temperature exceeds fifty-five (55) degrees Centigrade.
 - e. Lime stabilization: Sufficient lime is added to produce a pH of twelve (12) after two (2) hours of contact.
 - f. Other methods: Other methods or operating conditions may be acceptable if pathogens and vector attraction of the waste (volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the other methods.
- 2. Public access to the facility is controlled for at least twelve (12) months;
 - 3. Grazing by animals whose products are consumed by humans is prevented for at least one (1) month; and
 - 4. They are treated by a Process to Further Reduce Pathogens, as defined in the following paragraph, if crops for direct human consumption are grown within eighteen (18) months of application or incorporation.

COMMENT: Processes to Further Reduce Pathogens include:

- a. Composting: Using the within-vessel composting method, the solid waste is maintained at operating conditions of fifty-five (55) degrees Centigrade or

greater for three (3) days. Using the static, aerated pile composting method, the solid waste is maintained at operating conditions of fifty-five (55) degrees Centigrade or greater for three (3) days. Using the windrow composting method, the solid waste attains a temperature of fifty-five (55) degrees Centigrade or greater for at least fifteen (15) days during the composting period, during which high temperature period, there are a minimum of five (5) turnings of the windrow.

- b. Heat drying: Dewatered sludge cake is dried by direct or indirect contact with hot gases, and moisture content is reduced to 10 percent (10%) or lower. Sludge particles reach temperatures well in excess of eighty (80) degrees Centigrade, or the wet bulb temperature of the gas stream in contact with the sludge at the point where it leaves the dryer is in excess of eighty (80) degrees Centigrade.
- c. Heat treatment: Liquid sludge is heated to temperatures of 180 degrees Centigrade for thirty (30) minutes.
- d. Thermophilic aerobic digestion: Liquid sludge is agitated with air or oxygen to maintain aerobic conditions at residence times of ten (10) days at fifty-five to sixty (55 to 60) degrees Centigrade, with a volatile solids reduction of at least 38 percent (38%).
- e. Other methods: Other methods or operating conditions may be acceptable if pathogens and vector attraction of the waste (volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the above methods.

Any of the following processes, if added to one of the Processes to Reduce Pathogens, is a Process to Further Reduce Pathogens; however, because these processes, on their own, do not reduce the attraction of disease vectors, they are only additive in nature.

- a. Beta ray irradiation: Sludge is irradiated with beta rays from an accelerator at dosages of at least one (1.0) megarad at room temperature (ca. twenty (20) degrees Centigrade).

- b. Gamma ray irradiation: Sludge is irradiated with gamma rays from certain isotopes, such as Cobalt 60 and Cesium 137, at dosages of at least one (1.0) megarad at room temperature (ca. twenty (20) degrees Centigrade).
- c. Pasteurization: Sludge is maintained for at least thirty (30) minutes at a minimum temperature of seventy (70) degrees Centigrade.
- d. Other methods: Other methods or operating conditions may be acceptable if pathogens are reduced to an extent equivalent to the reduction achieved by any of the above additive methods.

G. Prohibitions Concerning Public Safety.

No person shall cause or permit the operation of a solid waste facility in violation of the following safety standards:

- 1. The concentration of explosive gases shall not exceed:
 - a. Twenty-five percent (25%) of the lower explosive limit for gases in solid waste facility structures and
 - b. The lower explosive limit for gases within the property boundary.
- 2. The solid waste facility shall not pose a hazard to the safety of persons or property from fires.
- 3. No solid waste facility disposing of putrescible waste shall pose a bird hazard to aircraft navigation.

4. Public access to solid waste facilities shall be controlled at all times so as to avoid exposure of the public to potential health and safety hazards.

H. General Hazardous Solid Waste Prohibitions.

No person shall cause or permit a hazardous solid waste facility to be operated in a manner that could result in:

1. Discharge of hazardous solid waste outside the hazardous solid waste areas designated in the operating plan for the facility;
2. Contamination or undue exposure of any person to or by hazardous solid waste; or
3. Any other hazard to public health and safety or to the environment.

I. Prohibition Exceptions.

The prohibitions established by this rule apply to all solid waste and solid waste facilities except the following:

1. Agricultural waste, including manures and crop residues, that are returned to the soil as fertilizers or soil conditioners;

2. Overburden resulting from mining operations that is intended for leaching and waste dump or for refilling the mine site;
3. Land application of domestic sewage or treated domestic sewage (however, they do apply to disposal of sludge generated by treatment of domestic sewage);
4. The location and operation of septic tanks (however, they do apply to the disposal of septic tank pumpings);
5. Solid or dissolved material in irrigation return flows; and
6. Discharges which are point sources subject to permits under Section 402 of the Clean Water Act, as amended.

RULE 305 - GENERAL PROHIBITION AGAINST CONTAMINATION OF GROUND WATER

No person shall cause or permit the contamination of an existing or potential underground drinking water source.

PART IV

SPECIAL PROVISIONS FOR
NON-HAZARDOUS SOLID WASTE
GENERATORS, COLLECTORS, TRANSPORTERS, AND
OWNERS AND OPERATORS OF
NON-HAZARDOUS SOLID WASTE FACILITIES

PART IV - SPECIAL PROVISIONS FOR NON-HAZARDOUS SOLID WASTE GENERATORS, COLLECTORS, TRANSPORTERS, AND OWNERS AND OPERATORS OF NON-HAZARDOUS SOLID WASTE FACILITIES

RULE 401 - PURPOSE, SCOPE, AND APPLICABILITY

This part establishes supplementary requirements for the operating plans of non-hazardous solid waste facilities, generating activities, and collection services. These requirements are in addition to those established in Rule 207.

This part also establishes special requirements for private non-hazardous solid waste collection services and for the storage of non-hazardous solid waste.

Principal applicability of this part is to the waste handling operations of municipalities and their contractors and to the waste collection and storage activities of individuals.

The establishment of special requirements for the handling of non-hazardous solid waste does not imply that similar or more stringent requirements do not apply to the handling of hazardous solid waste.

RULE 402 - NON-HAZARDOUS SOLID WASTE OPERATING PLANS

A. Deadline for Submitting Plans.

Not more than eighteen (18) months after the effective date of this regulation (i.e., by May 13,

1982), each owner or operator of a non-hazardous solid waste facility, collection service, or generating activity shall submit a Non-Hazardous Solid Waste Operating Plan to the Board for its approval.

B. Special Requirements for Non-Hazardous Solid Waste Operating Plans.

Each Non-Hazardous Solid Waste Operating Plan shall describe in detail the proposed operation of the non-hazardous solid waste facility, collection service, or generating activity, including plans for the following:

1. Cleaning of all public streets, plazas, walks, rivers, and beaches within the service area covered by the plan;
2. Collection and transportation of all non-hazardous solid waste within the service area covered by the plan; and
3. Final disposal of all solid waste collected.

C. Additional Requirements for Non-Hazardous Solid Waste Generating Activity and Collection Service Operating Plans.

In addition to the requirements set forth above and in Rule 207, the Non-Hazardous Solid Waste Operating Plan for a generating activity or a collection

service shall provide for the following elements, when applicable:

1. Containers for the deposit of papers and other dry wastes by users of public streets, plazas, parks, walks, and beaches;
2. Containers to be used at residences and commercial or industrial facilities to accumulate household waste or non-hazardous solid waste for collection;
3. Vehicles and containers for collection and transportation of non-hazardous solid waste;
4. Collection schedules for residential, commercial, and industrial areas;
5. Sites or facilities for the transfer of non-hazardous solid waste;
6. Sites or facilities for final disposal of non-hazardous solid waste;
7. Personnel to carry out the plan; and
8. Registers and manifests and monitoring equipment to assure compliance with the plan.

D. Emergency Procedures.

The Non-Hazardous Solids Waste Operating Plan shall include the emergency procedures required by Rule 207.

E. Coordination with Hazardous Solid Waste Activities.

If the facility, collection service, or generating activity also handles hazardous solid waste, the Non-Hazardous Solid Waste Operating Plan will explain the manner in which hazardous solid waste operations are carried out or coordinated with non-hazardous solid waste operations.

RULE 403 - RESPONSIBILITIES OF PRIVATE NON-HAZARDOUS SOLID WASTE COLLECTION SERVICES

This regulation does not limit the right of any person to attain compliance with its requirements or to provide solid waste services by contracting with others. Such contracts, however, shall not relieve any such person from the obligation to comply with this regulation.

Private contractors providing non-hazardous solid waste collection services shall be responsible for both the requirements established by this regulation and for those established by their service contracts. Compliance with this regulation does not relieve a private collection service contractor from more stringent requirements in a service contract.

This rule does not prevent any private collection service from also owning and operating solid waste disposal facilities.

RULE 404 - COLLECTION AND STORAGE OF NON-HAZARDOUS SOLID WASTE

Every person who owns, occupies, or operates any residence or commercial or industrial facility:

1. Shall be responsible for the sanitary storage of all non-hazardous solid waste accumulated at the residence or commercial or industrial facility;
2. Shall provide a sufficient number of containers to store all waste materials being accumulated for collection;
3. Shall place waste in containers in such a manner as to prevent it from being spilled or deposited upon any street, sidewalk, or other public place or upon private property;
4. Shall be responsible for draining and wrapping wet waste before placing it in a container, unless special collection procedures permit the handling of wet, unwrapped waste;
5. Shall not store liquid substances of any kind in waste storage containers unless:
 - a. The containers are specifically designed to hold liquids and
 - b. Storage and collection procedures are designated to handle liquids;

6. Shall not store any other wastes that may be hard for waste collectors to handle; and
7. Shall place waste containers at the designated point of collection prior to the designated time for collection.

RULE 405 - STORAGE OF NON-HAZARDOUS SOLID WASTE

A. Individual, Non-Disposable Containers.

Individual containers utilized for the storage of non-hazardous solid waste shall be designed or constructed so that they are:

1. Easily handled for collection;
2. Reasonably resistant to rust and corrosion;
3. Equipped with tight-fitting lids;
4. Reasonably water-tight, leak-proof, weather-proof, insect-proof, and rodent-proof; and
5. Easily washable.

When used, such containers shall be either placed on a smooth, impervious surface or in storage racks or container supports.

B. Disposable Containers.

Disposable containers such as paper or polyethylene bags shall be acceptable for storage of

non-hazardous solid waste provided they are:

1. Specially designed for such waste storage and collection;
2. Have sufficient tensile strength to withstand normal stresses until they are collected; and
3. Have a maximum capacity of forty (40) gallons.

When used, they must be protected from damage by animals and overloading and must be securely tied prior to being set out for collection. If made of paper, they must not be used for outside storage unless they are supported by wall-mounted or free-standing holders or frames and unless they are protected from precipitation.

C. Bulk or Commercial-Type Containers.

Bulk or commercial-type containers shall have sufficient capacity for the waste to be accumulated in them. They will be compatible with the collection equipment, and shall be constructed of durable and corrosion resistant material, be equipped with tight-fitting lids or doors, and be water-tight and weather-proof.

D. Temporary Open Storage.

Bundles of newspapers and magazines, waste paper, packing cases and materials, tree prunings, brush and yard trimmings, and similar waste shall be

securely tied in bundles that are not too large to be readily handled by the waste collection system.

E. Bulky Waste.

Bulky waste shall be stored in such a manner as to prevent collection of water or becoming a harborage for insects and rats. They should not be placed out for collection prior to twenty-four (24) hours before a scheduled collection pickup, and the doors of refrigerators and freezers shall be removed prior to being placed out for collection.

PART V

SPECIAL RECORDKEEPING AND REPORTING
REQUIREMENTS FOR HAZARDOUS SOLID WASTE
GENERATORS, TRANSPORTERS, AND OWNERS OR OPERATORS OF
HAZARDOUS SOLID WASTE FACILITIES

PART V - SPECIAL RECORDKEEPING AND REPORTING REQUIREMENTS FOR HAZARDOUS SOLID WASTE GENERATORS, TRANSPORTERS, AND OWNERS OR OPERATORS OF HAZARDOUS SOLID WASTE FACILITIES

RULE 501 - PURPOSE, SCOPE, AND APPLICABILITY

This section establishes special recordkeeping and reporting requirements for persons handling hazardous solid waste. These requirements supplement the general provisions of Part II, and they are in addition to specific recordkeeping and reporting requirements that may be incorporated into permits for specific facilities or services. They are also in addition to the special reports required in other parts of this regulation, such as reports regarding transportation emergencies and ground water contamination.

RULE 502 - KEEPING RECORDS OF FACILITY OR ACTIVITY OPERATIONS

A. Generator Requirements.

Generators of hazardous solid waste must maintain records of the following:

1. All tests conducted to analyze wastes or to quantify them, including tests made to determine whether or not a solid waste is hazardous;
2. The quantity and type of all hazardous solid waste whenever it is generated;
3. The quantity and type of all hazardous solid

waste that is treated, stored, or disposed of on-site;

4. The quantity and type of all hazardous solid waste that is removed to an off-site facility for treatment, storage, or disposal;

COMMENT: The record of the removal of hazardous solid waste for off-site handling may be maintained by retaining copies of the manifests prepared for hazardous solid waste transport.

5. The quantity and type of all such hazardous solid waste that is received by an off-site facility for handling;

COMMENT: The record of the receipt of transported hazardous solid waste may be maintained by retaining copies of the completed, signed manifest received from designated hazardous solid waste disposal facilities.

6. The quantity and type of all hazardous solid waste that was generated but is unaccounted for either because it was not recorded as having been transported from the facility or because it was transported from the facility but receipt has not been acknowledged by the designated hazardous solid waste disposal facility.

B. Transporter Requirements.

Transporters of hazardous solid waste will maintain records of the following:

1. The quantity and type of all hazardous solid

waste that they carry;

2. The source and delivery point of all hazardous solid waste that they carry; and
3. All hazardous solid waste that is received but for which there is no record of delivery.

COMMENT: These records may be maintained by retaining copies of all manifests received with shipments of hazardous solid waste, whether or not it has been signed by the next designated transporter or by the owner or operator of the designated facility.

C. Requirements for Owners and Operators of Hazardous Solid Waste Facilities.

1. Hazardous solid waste facility owners or operators (including generators that treat or store or dispose of hazardous solid waste on-site) must keep a daily operating log (open for inspection by personnel of the Board) to record the quantity and type of all hazardous solid waste that is treated, stored, or disposed of at the facility. The information kept in the log will include, but is not limited to the following:
 - a. A description of the quantity and type of each hazardous solid waste received and the method(s) and date(s) of its treatment, storage, or disposal at the facility. As to each hazardous solid waste

received, this record must include the following:

- (1) A description of the type of waste by its common name and the hazardous waste number identified in Part VI of this regulation which applies to the waste.

COMMENT: Each hazardous solid waste listed in Part VI and each hazardous solid waste characteristic defined in Part VI has a four-digit hazardous waste number assigned to it. This number is the one that must be used for recordkeeping and reporting purposes. Where a hazardous solid waste is a mixture of several listed in Part VI, or where more than one hazardous solid waste characteristic applies to the waste, the waste description must include all applicable hazardous solid waste numbers.

The waste description also must include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in Part VI, the description also must include the process that produced it. (For example, solid filter cake from production of _____ . Hazardous solid waste number _____ .)

- (2) The estimated or manifest reported weight, or volume and density, where

applicable, in appropriate units of measure.

- (3) The method(s) and date(s) of treatment, storage, or disposal.
 - b. The location of each hazardous solid waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross references to specific manifest document numbers, if the waste was accompanied by a manifest.
 - c. Records and results of each waste analysis performed as required by Part VIII to monitor all hazardous solid waste that is treated, stored, or disposed of.
2. In addition to the daily operating log, hazardous solid waste facility owners and operators (including generators that treat, store, or dispose of hazardous solid waste on-site) must keep the following additional records:
- a. Summary reports and details of all incidents that require implementing the emergency procedures required by Part II

- and Part VIII;
- b. Records and results of all inspections required by Part VIII;
- c. For off-site facilities, notices to generators confirming that the facility can lawfully receive hazardous solid waste;
- d. Records of operating conditions (temperature, pressure, residue, time, feed rate, etc.); and
- e. Training records.

RULE 503 - REPORTING ON FACILITY OR ACTIVITY OPERATIONS

A. Annual Reports.

- 1. Generators must prepare and submit to the Board an annual report not later than March 1 of each year. The annual report must cover all hazardous solid waste generated during the preceding calendar year. The annual report must include the following information:
 - a. Generator's name, identification number, and address or location;
 - b. Name and telephone number of the person who may be contacted regarding information submitted;
 - c. Name, identification number, and address

of each hazardous solid waste facility to which the hazardous solid waste was sent, if any, including the following information as to each:

- (1) A description of the waste by hazardous solid waste identification number;
- (2) An estimate of the quantity of each hazardous solid waste shipped to the designated facility; and
- (3) The name and identification number of each transporter whose services were used to transport such waste to the designated facility;

d. As to hazardous solid waste disposed of on-site:

- (1) A description of each hazardous solid waste treated, stored, or disposed of during the year;
- (2) The quantity of each such hazardous solid waste; and
- (3) A description of the method of treatment, storage, or disposal used for each such hazardous solid waste;

e. Any other information required in the annual reports of owners or operators of hazardous solid waste facilities; and

- f. Certification in accordance with requirements of the Board and signed by the owner or operator or his duly authorized representative.
2. Transporters, not later than March 1 of each year, must prepare and submit an annual report to the Board. The report must cover all hazardous solid waste transported during the preceding calendar year. It must include the following information:
 - a. Transporter's name, identification number, and address or location;
 - b. Name and telephone number of the person who may be contacted regarding information submitted;
 - c. Name, identification number, and address of each generator from which hazardous solid waste was received;
 - d. A description of each such hazardous solid waste by its identification number and with an estimate of the quantity shipped to each designated facility;
 - e. Name, identification number, and address of the hazardous solid waste facilities to which each such waste was delivered;
 - f. An explanation of all instances of hazardous solid waste having been received

by the transporter but not delivered to a designated hazardous solid waste facility or returned to the generator; and

- g. Certification in accordance with requirements of the Board and signed by the owner or operator or his duly authorized representative.

3. An owner or operator of a facility which receives hazardous solid waste for treatment, storage, or disposal must prepare and submit an annual report to the Board by March 1 of each year. The annual report must cover all hazardous solid waste stored, treated, or disposed of during the previous calendar year and must include the following information:

- a. The identification number, name, and address of the hazardous solid waste facility;
- b. The name and identification number of each hazardous solid waste generator from which the facility received hazardous solid waste, and for imported shipments, the name and address of the foreign generator;
- c. The description and quantity of each hazardous solid waste (by generator and by hazardous solid waste identification number) received at the facility;

- d. The method of treatment, storage, or disposal of each such hazardous solid waste;
- e. Monitoring data, where required;
- f. The most recent closure cost estimate, and for disposal facilities, the most recent post-closure cost estimate; and
- g. Certification in accordance with requirements of the Board and signed by the owner or operator or his duly authorized representative.

B. Ground-Water Monitoring, Recordkeeping, and Reporting.

The owner or operator of a hazardous solid waste facility required by Paragraph 804(A) (1) to establish a ground-water monitoring program must:

- 1. Keep records of the analyses required in Paragraphs 804(C) (3) and (4), the associated ground-water surface elevations required in Paragraph 804(C) (5), and the evaluations required in Paragraph 804(D) (2). These records shall be kept throughout the active life of the facility and, for disposal facilities, throughout the post-closure period as well.
- 2. Report the following ground-water monitoring

information to the Board:

- a. During the first year, when initial background concentrations are being established for the facility, the concentrations or values of the parameters listed in Subparagraph 804(C)(2)(a) shall be reported for each ground-water monitoring well, and they shall be reported within fifteen (15) days after completing the required quarterly analysis. The owner or operator must separately identify for each monitoring well any parameters whose concentration or value has been found to exceed the maximum contaminant level listed in Subparagraph 804(C)(2)(a).
- b. After the first year and annually thereafter, the following shall be reported:
 - (1) The concentrations or values of the parameters listed in Subparagraph 804(C)(2)(c). These values shall be submitted for each ground-water monitoring well, and they shall be submitted along with the evaluations of these parameters required under Paragraph 804(D)(2). The owner or

operator must separately identify any significant difference from initial background found in the upgradient wells, in accordance with Paragraph 804(D)(3). During the active life of the facility, this information must be submitted as part of the annual report required under this rule.

- (2) Results of the evaluation of ground-water surface elevations required under Paragraph 804(D)(5) and a description of the required response to that evaluation, where applicable.

If the ground water is monitored to satisfy the requirements of Subparagraph 804(D)(4)(d), the owner or operator must:

1. Keep records of the analyses and evaluations specified in the assessment plan required by Subparagraph 804(D)(4)(c) throughout the active life of the facility, and, for land disposal facilities, throughout the post-closure period as well; and
2. Annually, until final closure of the facility, submit to the Board a report containing the results of the ground-water assessment program, including but not limited to the calculated (or

measured) rate of migration of hazardous solid waste or hazardous solid waste constituents in the ground water during the reporting period. This report must be submitted as part of the annual report required under this rule.

C. Other Reports.

Owners and operators of hazardous solid waste facilities must report:

1. Accidents, incidents, or any disruptions from authorized operating procedure;
2. Monitoring data; and
3. Closure operations, giving at least thirty (30) days advance notice.

RULE 504 - KEEPING RECORDS AND REPORTING ON THE MANIFEST SYSTEM

A. Generator Requirements for Manifest Recordkeeping.

1. A generator must keep a copy of each manifest for three (3) years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three (3) years from the date the waste was accepted by the initial transporter.
2. A generator must keep a copy of each Annual Report and Exception Report for a period of at

least three (3) years from the due date of the report (March 1).

B. Generator Requirements for Manifest Reporting.

1. As required in Section 703(E), a generator must submit one (1) copy of each manifest to the Board within one (1) week of delivery to the transporter. The copy must be sent to:

Director
Area for Land Pollution Control
Environmental Quality Board

2. As required by Section 703(F), a generator must submit an Exception Report to the Board if he has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within thirty (30) days of the date the waste was accepted by the initial transporter.

C. Transporter Requirements for Manifest Recordkeeping.

1. A transporter of hazardous solid waste must keep a copy of the manifest signed by the generator, himself, and the next designated transporter or the owner or operator of the designated facility for a period of three (3) years from the date the hazardous waste was accepted by the initial transporter.
2. For shipments delivered to the designated

facility by water (bulk shipment), each water (bulk shipment) transporter must retain a copy of the shipping papers for a period of three (3) years from the date the hazardous solid waste was accepted by the initial transporter.

3. A transporter who transports hazardous solid waste out of the Commonwealth of Puerto Rico must keep a copy of the manifest indicating that the hazardous solid waste left the Commonwealth of Puerto Rico. This copy must be kept for a period of three (3) years from the date the hazardous solid waste was accepted by the initial transporter.

D. Manifest Recordkeeping and Reporting Requirements of Owners or Operators of Hazardous Solid Waste Facilities.

1. The owner or operator of a hazardous solid waste facility that receives hazardous solid waste accompanied by a manifest must:
 - a. Sign and date each copy of the manifest to certify that the hazardous solid waste covered by the manifest was received;
 - b. Note any significant discrepancies (as defined in Paragraph 2 of this section) on each copy of the manifest;
 - c. As required in Section 703(E), give the transporter at least one (1) copy of the

signed manifest;

- d. Within thirty (30) days after delivery, send the original copy to the generator and, at the end of each month or such longer period of time as may be approved by the Board, send one (1) copy of the completed, signed manifest to the Board; and
- e. As required by Section 505(A), retain a copy of each manifest for at least three (3) years.

The owner or operator of a facility that receives hazardous solid waste from a water (bulk shipment) transporter which, as provided in Section 706(E), is accompanied by a shipping paper containing all the information required on a manifest, must:

- a. Sign and date each copy of the shipping papers to certify that the hazardous solid waste covered by them was received;
- b. Note any significant discrepancies in the shipping papers (as defined in Paragraph 2 of this section) on each copy of the shipping papers;
- c. Immediately give the water (bulk shipment) transporter at least one (1) copy of the shipping papers;

- d. Within thirty (30) days after delivery, send a copy of the shipping papers to the generator and, at the end of each month or such longer period as may be approved by the Board, send one (1) copy to the Board; or, if the manifest is received within thirty (30) days after delivery, sign and date the manifest and return it to the generator and to the Board in lieu of the shipping papers; and
- e. As required by Section 505(A), retain at the facility a copy of each shipping paper or manifest for a least three (3) years from the date of delivery.

All copies of completed, signed manifests or shipping papers sent to the Board shall be sent to:

Director
Area for Land Pollution Control
Environmental Quality Board

- 2. Manifest discrepancies are differences between the quantity or type of hazardous solid waste designated on the manifest or shipping papers and the quantity or type of hazardous solid waste a facility actually receives. Significant discrepancies in quantity are:
 - a. For bulk waste, variations greater than ten (10) percent, by weight, and

- b. For batch waste, any variation in piece count, such as a discrepancy of one drum in a truck load.

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 papers.

Upon discovering a significant discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within fifteen (15) days after receiving the waste, the owner or operator must immediately submit a letter to the Board describing the discrepancy and attempts to reconcile it and enclosing a copy of the manifests or shipping papers at issue.

3. Owners or operators of a hazardous solid waste facility which has received unmanifested hazardous solid waste from any off-site source (other than one which qualifies for the small generator exception in Part VI and does not, therefore, have to prepare a manifest) must prepare and submit a report to the Board not later than fifteen (15) days after receiving

the waste. The report must include the following information:

- a. Identification number, name, and address of the hazardous solid waste facility;
- b. Date the hazardous solid waste facility received or discovered the waste;
- c. Identification number, name, and address of the generator and the transporter, if available;
- d. Description of type and quantity of each unmanifested hazardous solid waste received;
- e. Method of treatment, storage, or disposal used for each such hazardous solid waste;
- f. Explanation of why the waste was unmanifested, if known; and
- g. Certification in accordance with requirements of the Board and signed by the owner or operator or his duly authorized representative.

RULE 505 - GENERAL PROVISIONS REGARDING RECORDKEEPING AND REPORTING

A. Record Retention.

All of the records and reports required by this part must be kept for a period of three (3) years

from the date they were to be prepared (records) or to be submitted (reports).

B. Availability of Records.

All records required under this part must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or duly identified representative of the Board.

C. Automatic Extension of Record Retention Period.

The retention period for all records required under this part is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Board.

D. Special Retention Requirement for Waste Disposal Records.

A copy of records of waste disposal locations and quantities required under Section 502(C) and under Part VIII must be retained for submission to the Board upon closure of the hazardous solid waste facility.

PART VI

CLASSIFICATION AS HAZARDOUS SOLID WASTE

PART VI - CLASSIFICATION AS HAZARDOUS SOLID WASTE

RULE 601 - PURPOSE, SCOPE, AND APPLICABILITY

This part established rules for determining which solid waste is hazardous solid waste. It does so by identifying certain characteristics of such waste and by adoption of certain lists of such waste developed by EPA.

In addition to establishing which solid waste is hazardous, this part also contains special requirements for small quantities of hazardous solid waste and for hazardous solid waste that is legitimately recycled, re-used, or reclaimed.

RULE 602 - HAZARDOUS SOLID WASTE EVALUATION REQUIREMENTS

All generators of solid waste who know or have reason to believe that their waste may be hazardous shall first determine if it is a waste listed pursuant to Rules 607 or 608 and, if it is not, shall then evaluate it in accordance with the characteristics in Rule 604, either declaring such waste to be hazardous based on their knowledge or by testing pursuant to the methods set forth in Rule 604.

RULE 603 - CRITERIA FOR CLASSIFICATION OF HAZARDOUS SOLID WASTE

A. Criteria for Hazardous Solid Waste Characteristics.

For the purpose of establishing characteristics of

hazardous solid waste, the Board will employ the following criteria:

1. To establish hazardous solid waste characteristics, the Board will first determine that a solid waste with that characteristic may:
 - a. Cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or
 - b. Pose a substantial present or potential hazard to human health or the environment when it is improperly stored, transported, treated, disposed of or otherwise managed; and
2. The characteristic can be:
 - a. Measured by an available standardized test method which is reasonably within the capabilities of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or
 - b. Reasonably detected by generators of solid waste through their knowledge of their waste.

B. Criteria for Listing a Hazardous Solid Waste.

The Board shall list a solid waste as a hazardous solid waste only if it determines that the waste meets one of the following criteria:

1. The waste exhibits any of the characteristics identified in Rule 604.
2. A waste will be considered an Acute Hazardous Waste and be listed as a hazardous solid waste if it is found to be fatal to humans in low doses, or in the absence of data on human toxicity, if it is determined to:
 - a. Have an oral LD₅₀ toxicity in rats of less than 50 mg/kg; or
 - b. Have an inhalation LC₅₀ toxicity in rats of less than 2 mg/liter; or
 - c. Have a dermal LD₅₀ toxicity in rabbits of less than 200 mg/kg; or
 - d. Be otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible illness.
3. A waste will be considered a Toxic Waste and be listed as a hazardous solid waste if it contains any of the toxic constituents listed in Appendix VIII, EPA Regulation 40 CFR Part 261, unless, after considering any of the following factors, the Board concludes that the

waste is not capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed:

- a. The nature of the toxicity presented by the constituent;
- b. The concentration of the constituent in the waste;
- c. The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under improper management;
- d. The persistence of the constituent or any toxic degradation product of the constituent;
- e. The potential for the constituent or any toxic degradation product of the constituent to degrade into non-harmful constituents and the rate of degradation;
- f. The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems;
- g. The plausible types of improper management to which the waste could be subjected;
- h. The quantities of the waste generated at individual generation sites or on a

regional or islandwide basis;

- i. The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of waste containing the constituent;
- j. Actions taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent; and
- k. Such other factors as may be appropriate.

The Board may list classes or types of solid wastes as hazardous solid waste if it has reasons to believe that individual wastes within the class or type of waste typically or frequently are hazardous under the definition of hazardous solid waste found in Rule 102.

RULE 604 - HAZARDOUS SOLID WASTE CHARACTERISTICS

A solid waste, as defined in Rule 102, is a hazardous solid waste if it is not excluded by the definition of that term in Rule 102 and if the waste possess any of the following characteristics:

A. Ignitability.

A solid waste is a hazardous solid waste if a

representative sample of the waste exhibits any of the following characteristics:

1. It is a liquid, other than an aqueous solution containing less than twenty-four percent (24%) alcohol by volume, and has a flash point less than sixty (60) degrees Centigrade (140 degrees Fahrenheit), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79, or a Setaflash Closed Cup Tester, using the test method specified in ASTM standard D-3278-78, or as determined by an equivalent test method approved by the Board in accordance with Rule 208.
2. It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.
3. It is a compressed gas that is ignitable to the extent that:
 - a. Either a mixture of thirteen percent (13%) or less (by volume) with air forms a flammable mixture or a flammable range with air that is wider than twelve percent (12%) regardless of the lower limit; or
 - b. Using the Bureau of Explosives Flame

- Protection Apparatus, the flame projects more than eighteen (18) inches beyond the ignition source with valve opened fully or the flame flashes back and burns at the valve with any degree of valve opening; or
- c. Using the Bureau of Explosives Open Drum Apparatus, there is any significant propagation of flame away from the ignition source; or
 - d. Using the Bureau of Explosives Closed Drum Apparatus, there is any explosion of the vapor-air mixture in the drum.

- 4. It is an oxidizer such as a chlorate, permanganate, inorganic peroxide, or a nitrate, that yields oxygen readily enough to stimulate the combustion of organic matter.

A solid waste that exhibit the characteristic of ignitability, but is not listed as a hazardous solid waste in EPA regulation 40 CFR Part 261, Subpart D, has the hazardous solid waste number of D001.

B. Corrosivity.

A solid waste is a hazardous solid waste if a representative sample of the waste exhibits either of the following characteristics:

- 1. It is an aqueous solid waste having a pH less than or equal to two (2) or greater than or equal to

12.5, as determined by a pH meter using either the test method specified in the "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (also described in "Methods for Analysis of Water and Wastes", EPA 600/4-79-020, March 19, 1979), or an equivalent test method approved by the Board pursuant to Rule 208.

2. It is a liquid with a corrosion rate greater than 6.35 millimeters (0.250 inch) per year on steel (SAE 1020) at a test temperature of fifty-five (55) degrees Centigrade (130 degrees Fahrenheit) as determined by NACE (National Association of Corrosion Engineers) Standard TM-01-69, or an equivalent test method approved by the Board pursuant to Rule 208.

A solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous solid waste in EPA regulation 40 CFR Part 261, Subpart D, has the hazardous solid waste number D002.

C. Reactivity.

A solid waste is a hazardous solid waste if a representative sample has any of the following properties:

1. It is normally unstable and undergoes violent change without detonating.

2. It reacts violently with water.
3. When mixed with water, it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.
4. It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between two (2) and 12.5, can generate toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.
5. It forms potentially explosive mixtures with water.
6. It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.
7. It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.
8. It is a forbidden explosive as defined in U.S. Department of Transportation regulation 49 CFR 173.51 or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88.

A solid waste that exhibits the characteristic of reactivity, but is not listed as a hazardous solid waste in EPA regulation 49 CFR Part 261, Subpart D,

has the hazardous solid waste number of D003.

D. Extraction Procedure (EP) Toxicity.

A solid waste which meets any of the following characteristics is a hazardous solid waste if using the text methods described in Appendix II, EPA regulation 40 CFR Part 261 or an equivalent test method approved by the Board, the extraction from a representative sample of the waste contains any of the contaminants listed in Table A, below, at a concentration equal to or greater than the respective maximum concentration given in the table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering, is considered to be the extract for the purpose of this section.

TABLE A

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR
CHARACTERISTIC OF EP TOXICITY

HAZARDOUS SOLID WASTE NUMBER	CONTAMINANT	MAXIMUM CONCENTRATION (MILIGRAMS PER LITER)
D004	Arsenic	5.0
D005	Barium	100.0
D006	Cadmium	1.0
D007	Chromium	5.0
D008	Lead	5.0
D009	Mercury	0.2
D010	Selenium	1.0
D011	Silver	5.0
D012	Endrin (1,2,3,4,10, 10-hexachloro-1,7- epoxy-1,4,4a,5,6, 7,8,8a-octahydro- 1,4,-endo, endo-5, 8-dimethano naphthalene).	0.02
D013	Lindane (1,2,3,4,5, 6-hexachlorocyclohe- xane, gamma isomer).	0.4
D014	Methoxychlor (1,1,1- trichlor-2,2-bis (p-methoxyphenyl) ethane).	10.0
D015	Toxaphene (C ₁₀ H ₁₀ C ₁₈ , technical chlorinated camphene, 67-69 percent chlorine).	0.5
D016	2,4-D (2,4 - dichloro phenoxyacetic acid).	10.0
D017	2,4,5-TP Silvex (2,4,5- trichlorophenoxypropionic acid).	1.0

A solid waste that exhibits the characteristic of EP toxicity, but is not listed as a hazardous solid waste in EPA regulation 40 CFR Part 261, Subpart D, has the hazardous solid waste number specified in Table A which corresponds to the toxic contaminant causing it to be hazardous.

- E. (Reserved)
- F. (Reserved)
- G. (Reserved)
- H. (Reserved)

I. Hazardous Solid Waste Not Otherwise Classified.

A solid waste is a hazardous solid waste even though it does not meet any of the characteristics set forth in this rule if it is determined by the Board to cause or contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or pose a substantial hazard to human health or the environment.

RULE 605 - EXTREMELY HAZARDOUS SOLID WASTE

The Board may designate certain solid waste as Extremely Hazardous Solid Waste when it determines that because of its quantity or concentration and because of its highly toxic,

reactive, ignitable, corrosive, infective, or radioactive nature, such waste constitutes a grave threat to human health or the environment if it is not properly stored, treated, disposed of, or otherwise handled.

The Board may prohibit the treatment, storage, or disposal of any such Extremely Hazardous Solid Waste in the Commonwealth of Puerto Rico if there is no hazardous solid waste facility capable of treating, storing, or disposing of such Extremely Hazardous Solid Waste without creating a danger to the environment or to public health.

RULE 606 - SPECIAL REQUIREMENTS FOR CERTAIN HAZARDOUS SOLID WASTE

A. Small Quantity Generators.

1. Except as provided in Paragraph 4, any person who generates, in a calendar month, a total of less than 1000 kilograms of hazardous solid waste for treatment, storage, or disposal within the Commonwealth of Puerto Rico is exempt from the manifest and permit requirements of Parts V through X of this regulation.
2. Any person whose hazardous solid waste is exempted under Paragraph 1 of this rule, but who accumulates hazardous solid waste in quantities larger than 1,000 kilograms, is (as

to that accumulated waste) subject to all the requirements of this regulation.

3. Any person who generates, in a calendar month, or accumulates at any time, within the Commonwealth of Puerto Rico any of the following hazardous solid wastes in quantities greater than set forth below is also subject to all the requirements of this regulation.
 - a. One (1) kilogram of any commercial product or manufacturing chemical intermediate having the generic name listed under EPA regulation 40 CFR Part 261.33(e);
 - b. One (1) kilogram of any off-specification commercial chemical product or chemical manufacturing intermediate which, if it met specifications, would have the generic name listed in EPA regulation 40 CFR 261.33(e);
 - c. Any containers identified in Paragraph 607(A) (3) that are larger than 20 liters in capacity;
 - d. Ten (10) kilograms of inner liners from containers identified in EPA regulation 40 CFR Part 261.33(c);
 - e. One hundred (100) kilograms of any residue or contaminated soil, water, or other debris resulting from the clean up

of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in EPA regulation 40 CFR Part 261.33(e).

4. In order for a hazardous solid waste to be excluded from regulation under this rule, the generator must comply with Section 702(B) of this regulation and must also treat or dispose of the waste in an on-site facility, or ensure delivery to an off-site facility which is authorized to dispose of such hazardous solid waste by a permit issued by the Board under Part IX of this regulation.
5. Hazardous solid waste subject to reduced requirements of this rule may be mixed with non-hazardous solid waste and remain subject only to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this rule, unless the resultant mixture meets any of the characteristics identified in Rule 604 of this regulation or is on the list identified in Rule 608.

B. Hazardous Solid Waste Which is Used, Re-Used, Recycled, or Reclaimed.

1. Except as otherwise provided in Paragraph 2 of this section, a hazardous solid waste which meets either of the following criteria is not subject to the requirements of Parts V through IX of this regulation until the Board promulgates regulations to the contrary:
 - a. It is or will be beneficially used, or
 - b. It is being re-used or legitimately recycled or reclaimed.
2. A hazardous solid waste which is a sludge, or which is listed pursuant to Rules 607 or 608, or which contains one or more hazardous solid waste listed pursuant to Rules 607 or 608; and which is transported or stored prior to being used, re-used, recycled, or reclaimed is subject to the requirements of Parts V through IX of this regulation with respect to such transportation or storage.

C. Residues of Hazardous Solid Waste in Empty Containers.

1. Any hazardous solid waste that remains in an empty container or an inner liner removed from an empty container, as defined in Paragraph 2 of this section, is not subject to Parts V

through X of this regulation.

2. A container or an inner liner removed from a container that has held any hazardous solid waste, except a waste that is a compressed gas, or that is identified in Paragraph 607(A)(3) of this part, shall be considered empty if:
 - a. All of the waste has been removed to the highest degree possible using the common practices to empty that kind of a container, and
 - b. No more than 2.5 centimeters (one (1) inch) of residue remains in the container or inner liner.
3. A container that has held a compressed gas classified as a hazardous solid waste shall be considered empty when the pressure inside the container is equal to atmospheric pressure.
4. A container or an empty liner removed from a container that is of the kind identified in Paragraph 607(A)(3) shall not be considered empty unless one of the three conditions set forth in that rule is satisfied.

RULE 607 - DISCARDED MATERIALS AS HAZARDOUS SOLID WASTE

A. Discarded Materials as Hazardous Solid Waste.

The following materials or items are hazardous solid

waste if they are discarded or intended to be discarded:

1. Any commercial chemical product or manufacturing chemical intermediate having the generic name listed in EPA regulation 40 CFR 261.33(e) or (f);
2. Any off-specification commercial chemical product or chemical manufacturing intermediate which, if it met specifications, would have the generic name listed in EPA regulation CFR 40 261.33(e) or (f);
3. Any container or inner liner removed from a container that has been used to hold any commercial chemical product or manufacturing chemical intermediate having the generic name listed in EPA regulation 40 CFR 261.33(e), unless:
 - a. The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or chemical manufacturing intermediate;
 - b. The container or inner liner has been cleaned by another method determined by the Board to achieve equivalent removal;
or
 - c. In the case of a container, the inner liner that prevented contact of the

commercial chemical product or chemical manufacturing intermediate with the container has been removed.

4. Any residue or contaminated soil, water, or debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or chemical manufacturing intermediate having the generic name listed in EPA regulation 40 CFR 261.33(e) or (f).

B. Discarded Materials as Acute Hazardous Waste.

The commercial chemical products or chemical manufacturing intermediates referred to in Section A of this rule which are listed in EPA regulation 40 CFR Part 261.33(e) are identified as Acute Hazardous Waste and are subject to the small quantity exemption established in Section 606(A), including the exclusion from that exemption in Rule 606(A)(3).

C. Discarded Materials as Toxic Waste.

The commercial chemical products or chemical manufacturing intermediates referred to in Section A of this rule which are listed in EPA regulation 40 CFR 261.33(f) are identified as Toxic Waste unless otherwise designated and are subject to the small quantity exemption established in Section 606(A).

RULE 608 - LISTING OF HAZARDOUS SOLID WASTE

A solid waste is a hazardous solid waste if it is:

1. Listed in EPA regulation 40 CFR 261.31 or 261.32 and that designation is adopted by the Board, or
2. So designated by the Board.

PART VII

SPECIFIC REQUIREMENTS APPLICABLE TO
GENERATORS AND TRANSPORTERS OF
HAZARDOUS SOLID WASTE

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FEDERAL BUREAU OF INVESTIGATION
UNITED STATES DEPARTMENT OF JUSTICE
WASHINGTON, D. C. 20535

PART VII - SPECIFIC PROVISIONS APPLICABLE TO GENERATORS AND TRANSPORTERS OF HAZARDOUS SOLID WASTE

RULE 701 - PURPOSE, SCOPE, AND APPLICABILITY

This part establishes certain requirements applicable to generators and transporters of hazardous solid waste. It supplements the general requirements set forth in Part II and the special recordkeeping and reporting requirements for generators and transporters set forth in Part V.

This part includes requirements for generators to characterize their waste streams, to obtain identification numbers, to use a manifest system to assure the delivery of hazardous solid waste to designated hazardous solid waste facilities, and to properly prepare hazardous solid waste for transport. It also includes requirements for transporters to use the manifest system, to obtain permits, to identify their vehicles, and to assume responsibility for transportation emergencies.

This part also establishes certain special requirements relating to on-site handling of hazardous solid waste and to international and interstate shipment of hazardous solid waste.

RULE 702 - STANDARDS FOR HAZARDOUS SOLID WASTE GENERATORS

A. General Requirements Applicable to Hazardous Solid Waste Generators.

1. Any generator of hazardous solid waste who only treats, stores, or disposes of that waste

on-site need only comply with the rules in this part for:

- a. Determining if the waste is hazardous or not (in accordance with Section 702(B)), and
 - b. Obtaining an identification number from the Board (in accordance with Section 702(C)).
2. A generator of hazardous solid waste who treats, stores, or disposes of that waste on-site must comply with the applicable standards and permit requirements set forth in Parts VIII and IX and with all other applicable parts of this regulation.
 3. Any person who imports hazardous solid waste into the Commonwealth of Puerto Rico must comply with all requirements applicable to generators of hazardous solid waste.

B. Hazardous Solid Waste Determination.

1. Any person who generates a solid waste, as defined in Rule 102, must determine if that waste is hazardous in accordance with Rule 602, using the lists and characteristics set forth in Part VI and using the following procedure:
 - a. Determine, first, if the waste is excluded from regulation under Rule 102.

- b. Determine next if the waste is listed under Rules 607 and 608.
 - c. If the waste is not listed as a hazardous solid waste, determine whether the waste has any of the characteristics identified in Rule 604 by:
 - (1) Testing the waste according to the methods set forth in Rule 604 or in accordance with equivalent test methods approved by the Board, or
 - (2) Declaring the waste to be hazardous based on his own knowledge of the hazardous characteristics of the waste in light of the materials or processes used.
2. Generators of solid waste who find their waste to be hazardous must comply with the special requirements established by this regulation.
3. If a person who generates hazardous solid waste listed by Rules 607 or 608 is not satisfied that the listed waste is indeed hazardous, he may, pursuant to Rule 208, demonstrate to the satisfaction of the Board that the waste is not hazardous by performing the required tests on a representative sample in accordance with the methods and criteria established in Section 208(G).

C. Identification Numbers.

1. No person who generates hazardous solid waste may treat, store, dispose of, transport, or offer for transportation such hazardous solid waste without first applying to the Board for an identification number. This requirement is waived, however, if such person has already obtained an EPA identification number for the desired activities.
2. Generators of hazardous solid waste may also not offer such waste to transporters or to treatment, storage, or disposal facilities that do not have identification numbers.

RULE 703 - USE OF MANIFESTS BY HAZARDOUS SOLID WASTE GENERATORS AND TRANSPORTERS

A. Preparation of Manifest.

Any person who generates hazardous solid waste must prepare a manifest before transporting (or offering for transport) the hazardous solid waste to an off-site hazardous solid waste storage, treatment, or disposal facility.

B. Designation of Hazardous Solid Waste Facility.

The generator must indicate on the manifest two

designated hazardous solid waste facilities (as defined in Rule 102) to handle the waste described in the manifest. One facility must be designated as the primary facility to receive the waste, and the other must be designated as the alternate facility in case an emergency prevents delivery of the waste to the primary designated facility.

C. Inability to Make Delivery.

If the transporter is unable to deliver the hazardous solid waste to the designated facility or the alternate facility, the generator must instruct the transporter to return the waste.

D. Manifest Contents.

The manifest, which shall be prepared on a document provided by the Board, must, at a minimum, contain the following information:

1. Manifest document number;
2. Generator name, address, telephone number, and identification number;
3. Date of shipment;
4. Transporter name and identification number;
5. Name, address, and identification number of the primary designated hazardous solid waste facility and the alternate facility;
6. The description of the wastes as required by

regulations of the U.S. Department of Transportation in 49 CFR 172.101, 172.202, and 172.203;

7. The quantity and volume of each hazardous solid waste in pounds, tons, gallons, or cubic yards, and the type and number of containers as loaded onto the transport vehicle;
8. Directions as to what immediate action should be taken in the event of a spill, or a telephone number where information on how to report a spill can be obtained on a 24-hour basis;
9. Special handling instructions; and
10. A certification that the named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation in accordance with Commonwealth of Puerto Rico laws and regulations and in accordance with the applicable regulations of EPA and the U.S. Department of Transportation.

E. Use of Manifest.

The generator must prepare the manifest in an original and five (5) copies in accordance with the following procedure:

1. The manifest must be signed by the generator

who delivers the hazardous solid waste to the transporter. It shall also be signed by the transporter, acknowledging receipt of the hazardous solid waste. The generator shall then send one (1) copy of the manifest to the Board (within one (1) week of delivery to the transporter) and shall retain one copy as a record. The remaining original and three (3) copies of the manifest shall accompany the shipment of hazardous solid waste. At the destination, the manifest shall be signed by the person who accepts the hazardous solid waste from the transporter, such signature acknowledging acceptance of the hazardous solid waste.

2. The transporter must keep one (1) copy of the signed manifest and deliver the original and two (2) copies to the owner or operator of the designated hazardous solid waste facility. The owner or operator of the designated hazardous solid waste facility must retain one (1) copy of the completed, signed manifest and must return the original to the generator. In addition, the owner or operator of the designated hazardous solid waste facility shall deliver to the Board, at the end of each month or such longer period of time as may be

approved by the Board, one (1) copy of the completed, signed manifest. When the original copy of a manifest is received from the designated hazardous solid waste facility, the generator shall retain it for a period of at least three (3) years.

3. A designated hazardous solid waste facility for disposal, storage, or treatment must be designated in the manifest as the final destination point. Any subsequent shipment of the hazardous solid waste or any portion or product thereof shall be initiated by the designated hazardous solid waste facility (as a hazardous solid waste "generator") and shall be accompanied by another manifest.
4. For bulk shipments of hazardous solid waste within the Commonwealth of Puerto Rico, generators and transporters must comply with all the requirements of this rule except as provided for in Section 706(E).

F. Undelivered Shipments.

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 twenty (20) days of acceptance by the initial transporter must contact the transporter and the owner or

operator of the designated facility to determine the status of the hazardous solid waste.

The generator must submit an Exception Report to the Board if a copy of the manifest is not received within thirty (30) days of the date the waste was accepted by the initial transporter. The Exception Report must include:

1. A legible copy of the manifest for which the generator does not have confirmation of ultimate delivery to the designated hazardous solid waste facility; and
2. A cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the hazardous solid waste and the results of those efforts.

RULE 704 - PRE-TRANSPORT REQUIREMENTS OF HAZARDOUS SOLID WASTE GENERATORS

A. Packaging.

Every generator, before transporting (or offering for transport) hazardous solid waste to an off-site facility, must package the waste in accordance with the applicable U.S. Department of Transportation regulations on packaging in 49 CFR Parts 173, 178, and 179.

B. Labeling and Marking.

1. Every generator must properly label each shipment of hazardous solid waste for transportation off-site in accordance with the U.S. Department of Transportation regulations on hazardous materials in 49 CFR Part 172.
2. Every generator must mark each package of hazardous solid waste in accordance with U.S. Department of Transportation regulations in 49 CFR Part 172.
3. Every generator must mark each package of hazardous solid waste using the following words and information displayed in accordance with the requirements of 49 CFR 172.304.

Hazardous Solid Waste - State and Federal Law Prohibits Improper Disposal. If found, contact the nearest police or civil defense office or the Environmental Quality Board. Generator's Name and Address _____ . Manifest Document Number _____ .

C. Placarding.

Every hazardous solid waste generator transporting (or offering for transport) hazardous solid waste off-site must placard (or offer the initial transporter the appropriate placards) according to U.S. Department of Transportation regulations for hazardous materials under 49 CFR Part 172, Subpart F.

D. Allowable Temporary Storage Time.

1. Any generator may accumulate hazardous solid waste on-site without a permit for a period of ninety (90) days, or less, provided that:
 - a. In ninety (90) days or less, all such waste is transported off-site or disposed of in an on-site facility that has a permit or is operating under an approved initial compliance plan.
 - b. The waste is stored in tanks or containers which meet the requirements established by this regulation and which are managed as follows:
 - (1) A container holding hazardous solid waste must always be closed;
 - (2) Containers holding hazardous solid waste must not be opened, handled, or stored in a manner which may cause them to rupture or to leak;
 - (3) Containers holding ignitable or reactive waste must be located at least fifteen (15) meters (fifty (50) feet) from the facility's property line;
 - (4) The generator must inspect the areas where containers are stored at least weekly; and

- (5) Each container used must be properly labeled and marked in accordance with Section B, above, and the date upon which each period of storage began must be clearly marked and visible for inspection on each container.
2. A generator who stores hazardous solid waste for more than ninety (90) days is an operator of a storage facility and is subject to the hazardous solid waste storage requirements of this regulation.

RULE 705 - SPECIAL REQUIREMENTS FOR CERTAIN HAZARDOUS SOLID WASTE GENERATORS

A. International Shipments.

1. Any person consigning hazardous solid waste to a foreign country or importing it from a foreign country must comply with all of the requirements of this regulation and must also:
 - a. Notify EPA and the Board, in writing, four (4) weeks before the initial shipment of hazardous solid waste to each country in each calendar year, as follows:
 - (1) Each waste must be identified by its hazardous solid waste identification number and its U.S. Department of

Transportation shipping description;

- (2) The name and address of each foreign consignee must be indicated; and
- (3) The EPA notice must be sent to:

Hazardous Waste Export
Division for Oceans and
Regulatory Affairs (A-107)
U.S. Environmental Protection
Agency
Washington, D.C. 20460

- b. Require the foreign consignee to confirm the delivery of the waste in the foreign country.
 - c. Satisfy the manifest requirements under Section 703(D), except that:
 - (1) The name and address of the foreign consignee must be used, and
 - (2) The generator must identify the point of departure from the Commonwealth of Puerto Rico through which the waste must leave before entering the foreign country.
2. Generators making international shipments of hazardous solid waste shall send, within one (1) week of the shipment, a copy of the manifest to the appropriate regulatory agency of the government having jurisdiction over the foreign hazardous solid waste facility.
 3. A generator must file an Exception Report with

the Board, with EPA, and with the appropriate agency of the government having jurisdiction over the foreign hazardous solid waste facility:

- a. If within forty-five (45) days of delivery to the initial transporter, he has not received a copy of the manifest signed by the international transporter stating the date and point of embarkation from the Commonwealth of Puerto Rico, or
 - b. Within ninety (90) days from the date the waste was accepted by the initial transporter, the generator has not received written confirmation of receipt by the foreign consignee.
4. When importing hazardous solid waste, a person must satisfy all requirements of Section 703(D) for manifests except:
- a. The name and address of the foreign generator and the importer's name, address, and identification number must be used, and
 - b. In place of the generator's signature on the certification statement, the importer or his agent must sign and date the certification and obtain the signature of the initial transporter.

5. Any designated hazardous solid waste facility that receives a shipment of hazardous solid waste from a foreign country will send a copy of the completed, signed manifest to the Board.

B. Interstate Shipments.

1. Any person consigning hazardous solid waste to one of the United States or the Virgin Islands must comply with all of the requirements of this rule and must also:
 - a. Send one (1) copy of the manifest to EPA and one (1) to the appropriate regulatory agency of the state government having jurisdiction over the designated hazardous solid waste facility;
 - b. If the shipment is a bulk shipment of hazardous solid waste by water, send one copy of the shipping papers to EPA and to the appropriate state government agency having jurisdiction over the designated hazardous solid waste facility;
 - c. Require the designated hazardous solid waste facility to send a copy of the completed, signed manifest to the Board, to EPA, and to the appropriate state government agency with jurisdiction over the designated hazardous solid waste

facility; and

- d. File an Exception Report with the Board, with EPA, and with the state in which the facility designated is located, and with any other state in which the shipment may have been delivered if, within forty-five (45) days of delivery to the initial transporter, a copy of the completed, signed manifest has not been received.

2. Any designated hazardous solid waste facility that receives a shipment of hazardous solid waste from a generator in one of the United States or the Virgin Islands must send one copy of the completed, signed manifest to the Board.

C. Pesticide Disposal by Farmers.

A farmer disposing of waste pesticides which are from his own use and which are hazardous solid waste is not required to comply with the requirements in this part or in Part V or with permit requirements in Part IX provided that:

1. He triple rinses each emptied pesticide container in accordance with requirements in Paragraph 607(A)(3), and
2. Disposes of the pesticide residues on his own land in accordance with the disposal instructions on the pesticide label.

RULE 706 - SPECIFIC PROVISIONS APPLICABLE TO TRANSPORTATION OF
HAZARDOUS SOLID WASTE

A. Requirements Applicable to Hazardous Solid Waste
Transporters.

1. These requirements apply to persons transporting hazardous solid waste within the Commonwealth of Puerto Rico if the transportation requires a manifest under Rule 703.
2. These requirements do not apply to on-site transportation of hazardous solid waste.
3. A transporter of hazardous solid waste must also comply with the requirements of a hazardous solid waste generator if he:
 - a. Transports hazardous solid waste into the Commonwealth of Puerto Rico, or
 - b. Mixes hazardous solid waste of different U.S. Department of Transportation shipping descriptions by placing them into a single container.
4. Transporters who store hazardous solid waste must comply with all of the storage requirements of this regulation.
5. Any person who transports hazardous solid waste within the Commonwealth of Puerto Rico must first apply for an identification number from the Board. This requirement is waived,

however, if such person has already obtained an EPA identification number.

6. Any person transporting hazardous solid waste within the Commonwealth of Puerto Rico must also apply to the Board for a permit in accordance with procedures established in Part IX.

B. Requirements for Vehicle Identification and Hazardous Solid Waste Symbol.

1. Upon issuance of a hazardous solid waste transportation permit, the owner or operator of any vehicle used to transport hazardous solid waste shall display the identification number issued by the Board on opposite sides of each permitted vehicle, following the words "Licensed Hazardous Waste Transporter (Number)" and using permanently affixed numbers and letters not less than two (2) inches high.
2. All vehicles used to transport hazardous solid waste and all packages used to contain hazardous solid waste must be labeled, marked, and placarded in accordance with Rule 704 and with U.S. Department of Transportation regulations 49 CFR Part 173, 178, and 179.

its 24-hour toll free number 800-424-8802)

and shall furnish the following information:

- a. Name of person reporting the spill;
 - b. Name and address of transporter involved;
 - c. Name and address of generator;
 - d. Telephone number where the transporter can be contacted;
 - e. Date, time, location, and nature of incident (indicate pollution of land, water, air, or public water supply, if known);
 - f. Type of incident (e.g., fire, spillage);
 - g. Description and quantity of hazardous solid waste involved, to the extent available;
 - h. Type of transport vehicle and mode; and
 - i. Extent of injuries, if any.
2. In the event of a discharge of hazardous solid waste during transportation, the transporter must take immediate action to protect human health and environment (e.g., by diking the discharge or using fire fighting equipment).
 3. Within two (2) weeks of the occurrence, the transporter shall submit to the Board and to the Director, Office of the Hazardous Materials Regulations, Materials Transportation Bureau, U.S. Department of Transportation, Washington,

D.C. 20590, a detailed written report on each transportation emergency that occurs in the Commonwealth of Puerto Rico. Such report must include the information required in Paragraph 1 of this section, a description of the cause of the transportation emergency, and a summary of the emergency response, including the treatment or disposal of any spilled waste or contaminated material.

COMMENT: A copy of the U.S. Department of Transportation Form F 5800.1 shall suffice for this report provided that it is properly completed and supplemented as necessary to include all information herein required.

4. Upon occurrence of a transportation emergency, the transporter must also notify the generator as soon as possible of the status of his hazardous solid waste shipment.

C. Emergency Removal.

If a discharge of hazardous solid waste occurs during transportation, any state or local government officer acting within the scope of his official responsibility who determines that immediate removal of the waste is necessary to protect public health or the environment may authorize the removal of the waste by transporters who do not have permits or identification numbers and without the preparation of a manifest.

according to the generator's instructions.

E. Special Requirements for Bulk Shipments.

For bulk shipment of hazardous solid waste by water, the requirement that the manifest accompany the shipment and be delivered to the designated hazardous solid waste facility does not apply if the following requirements are complied with:

1. The water transporter delivers the hazardous solid waste to a designated hazardous solid waste facility;
2. The water transporter accepts only hazardous solid waste that is accompanied by a manifest or shipping paper containing all the information required on a manifest (excluding the identification numbers, generator certification, and signatures);
3. The person delivering the hazardous solid waste to the water transporter obtains the date of delivery and signature of the water transporter on the manifest and forwards it to the designated facility;
4. The generator (or transporter delivering to the water transporter) obtains the date of delivery and handwritten signature of the owner or operator of the designated facility on either the manifest or shipping paper; and

5. A copy of the shipping paper or manifest is retained by each water transporter.

F. Special Requirements for International Shipments.

Transporters who carry international shipments out of the Commonwealth of Puerto Rico must:

1. Indicate the date the hazardous solid waste left Puerto Rico;
2. Sign the manifest and retain one (1) copy; and
3. Return a signed copy to the generator.

RULE 707 - TRANSPORTATION EMERGENCIES

A. Definition of Transportation Emergency.

For the purpose of this rule, a transportation emergency is an accident or incident--such as a fire, explosion, breakage, spillage, or leakage--which occurs during the course of transportation of hazardous solid waste and which results in a discharge of such waste so that it has a potential for injury to human health or the environment.

B. Transporter Notice and Response Requirements.

1. Upon discovery of a transportation emergency the transporter shall immediately telephone the local Police Office, the Civil Defense, the Board, and the National Response Center (using

C. Requirements for Transport of Hazardous Solid Waste and Acceptance of Hazardous Solid Waste from Transporters.

1. Transport of hazardous solid waste to a designated hazardous solid waste facility must be in accordance with the following requirements:

a. No person may transport hazardous solid waste to a transfer station, another transporter, or to a designated hazardous solid waste facility unless the shipment is accompanied by a manifest completed in accordance with Rule 703.

b. No generator may deliver hazardous solid waste to a transporter for transportation unless the transporter:

- (1) Holds a valid permit issued by the Board in accordance with Part IX, or
- (2) Is an existing transportation service which has submitted a timely application for a permit in accordance with Part IX.

2. No person may accept any hazardous solid waste for disposal, storage, or treatment within the Commonwealth of Puerto Rico unless:

a. The transporter:

- (1) Has a valid permit issued by the Board under Part IX, or

- (2) Is an existing transportation service which has submitted a timely application for a permit in accordance with Part IX, and
- b. Concurrently presents to the receiver a completed, signed manifest as required by Rule 703 which designates the receiver's facility as the destination for the hazardous solid waste.

D. Compliance with the manifest.

1. The transporter must deliver the entire quantity of hazardous solid waste which he accepted from the generator to:
 - a. The primary designated facility listed on the manifest; or
 - b. The alternate designated facility, if the hazardous solid waste could not be delivered to the primary designated facility; or
 - c. The next designated transporter; or
 - d. A site outside of the United States designated by the generator.
2. If the hazardous solid waste cannot be delivered in accordance with the manifest, the transporter must contact the generator for further directions and must revise the manifest

D. Bulk Transporter Notice Responsibilities.

A water (bulk shipment) transporter who has discharged hazardous solid waste into water must give the same notice as required by 33 CFR 153.203 for oil and hazardous substances.

E. Transporter Clean Up Responsibilities.

A transporter must clean up any hazardous solid waste discharge that occurs during transportation, or take such appropriate actions as may be required by the Board, so that the hazardous solid waste discharge no longer presents a hazard to human health or the environment.

PART VIII

SPECIAL PROVISIONS FOR
HAZARDOUS SOLID WASTE
TREATMENT, STORAGE, AND DISPOSAL FACILITIES

PART VIII - SPECIAL PROVISIONS FOR HAZARDOUS SOLID WASTE
TREATMENT, STORAGE, AND DISPOSAL FACILITIES

RULE 801 - PURPOSE, SCOPE, AND APPLICABILITY

This part establishes additional requirements applicable to hazardous solid waste treatment, storage, and disposal facilities. These requirements supplement the general provisions in Part II and the general prohibitions in Part III. They are not applicable to facilities that do not handle hazardous solid waste. The requirements of this part also do not apply to:

- A. A person disposing of hazardous solid waste by means of ocean disposal subject to a permit issued for ocean disposal under the Marine Protection, Research, and Sanctuaries Act;

COMMENT: This part does apply to the treatment or storage of hazardous solid waste before it is loaded onto an ocean vessel for incineration or disposal at sea.

- B. The owner or operator of a POTW which treats, stores, or disposes of hazardous solid waste;

COMMENT: The owner or operator of a POTW is exempt from the requirements of this Part only to the extent that the hazardous solid waste is received via a sanitary sewage collection system.

- C. A farmer disposing of waste pesticides from his own use in compliance with Section 705(C) of this regulation;

- D. A generator accumulating waste on-site in compliance with Paragraph 704(D)(1) of this regulation; and

- E. The owner or operator of a totally-enclosed treatment facility;
- F. The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in Rule 102 of this regulation.

RULE 802 - GENERAL HAZARDOUS SOLID WASTE FACILITY PROVISIONS

A. Imminent Hazard.

Notwithstanding any other provision of this regulation, enforcement actions may be brought by the Board to enjoin any activity that presents an imminent and substantial threat to human health or the environment.

B. (Reserved)

RULE 803 - STANDARDS APPLICABLE TO HAZARDOUS SOLID WASTE FACILITIES

A. Identification Number.

The owner or operator of each hazardous solid waste facility must apply to the Board for an identification number. For the purpose of this regulation, the Board will adopt the same identification number as EPA.

B. Required Notices.

1. The owner or operator of a facility that has arranged to receive hazardous solid waste from a foreign source must notify the Board and EPA, in writing, at least four (4) weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.
2. Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of this part and of Part IX. (An owner's or operator's failure to notify the new owner or operator of the requirements of this Part in no way relieves the new owner or operator of his obligations to comply with all applicable requirements.)

C. Requirements for Site Selection.

In addition to the solid waste prohibitions in Rule 304, no new hazardous solid waste facility shall be located:

1. In a 100-year floodplain (except incinerators, storage facilities, and land treatment

facilities (landfarms) if it can be demonstrated that such facilities are designed, constructed, operated, and maintained so that they will not be inundated by the 100-year flood);

2. In an aquifer recharge zone; or
3. In an area where the active portion of the facility would not always be located at a sufficient distance from the boundary of the facility to not be a nuisance or hazard to human health or the environment.

D. Security.

1. The owner or operator must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of person or livestock onto the active portions of his facility, unless:
 - a. Physical contact with the waste, structures, or equipment within the active portions of the facility could not injure unknowing or unauthorized persons or livestock which may enter the active portions of the facility; and
 - b. Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active

portions of a facility, could not cause a violation of the requirements of this regulation.

2. A facility must have a 24-hour surveillance system which continuously monitors and controls entry onto the active portions of the facility or must have artificial barriers (e.g., fences with gates and locks) which surround the active portions of the facility and provide a means to control entry at all times (e.g., through the gates or other entrances to the active portions of the facility).
3. Signs must be posted at each entrance to an active portion of the facility with the following legend:

DANGER	PELIGRO
Unauthorized Personnel	Personal No Autorizado
Keep Out	Mantenganse Fuera

This legend must be in English and Spanish, and the signs must be sufficient in size and number and must be located in such a manner that they can easily be seen from any approach to the active portion of the facility.

4. A sign must also be erected and maintained at the main entrance to the hazardous solid waste facility. It must be clearly legible and visible and must contain the following

information:

- a. Name of the facility,
- b. Emergency phone numbers,
- c. Warnings of the presence of hazardous solid waste, and
- d. Hours of operation.

E. Emergency Procedures in Operating Plan.

The owner or operator of a hazardous solid waste facility must develop, and must submit to the Board for approval, written emergency procedures as part of the facility operating plan. These procedures must satisfy the requirements of Rule 207 and, in addition, must provide for the following:

1. At least one trained person, during hours of operation of the hazardous solid waste facility, with the responsibility and authority for coordinating all emergency response measures.
2. A description of the actions that facility personnel must take in response to an imminent or actual emergency. Such actions must be under the control of an emergency coordinator or his designee and must include the following:
 - a. Immediate notification to facility personnel and the appropriate state or local agencies with designated response

roles.

- b. Immediate identification of the character, exact source, amount, and extent of any discharge of hazardous solid waste.
- c. Assessment of hazards to human health or the environment that may result from any waste discharge, fire, or explosion.
- d. If a discharge, fire, or explosion could threaten human health or the environment, notification to:
 - (1) Local authorities about the need for evacuation of affected areas; and
 - (2) The National Response Center (using their 24-hour toll free number, 800-424-8802). This report must include the name and telephone number of the person giving the notification, the name and address of the facility, the time and type of incident, the name and quantity of the wastes involved, if known, the extent of injuries, if any, and the possible hazards to human health or the environment.
- e. Measures to ensure that fires, explosions, and discharges do not occur, reoccur, or spread.
- f. Monitoring for leaks, pressure build-up,

gas generation, or ruptures in valves, pipes, or other equipment whenever this is appropriate.

- g. Treating, storing, or disposing of recovered waste, contaminated soil or surface water or any other material that results from the discharge, fire or explosion.
- h. Preventing the treatment, storage, or disposal of any hazardous solid waste that may be incompatible with any discharged waste or waste material until clean-up procedures are completed.
- i. Cleaning of all emergency equipment listed in the contingency plan before operations are resumed.
- j. Notification to the Board when the emergency is over and when the facility is operating in compliance.
- k. Within two (2) weeks of the incident, submission of a written report to the Board. This report must include:
 - (1) Name, address, and telephone number of the owner or operator;
 - (2) Name, address, and telephone number of the facility;
 - (3) Date, time, and type of incident;

- (4) Type and quantity of waste(s) involved;
 - (5) Extent of injuries;
 - (6) An assessment of actual or potential hazards to human life or the environment; and
 - (7) An estimate of the quantity of recovered material that resulted from the incident.
3. Arrangements agreed to with local police department, fire department, civil defense, department of health, and local hospitals for emergency services.
 4. An evacuation plan.
 5. An outline of the program for familiarization of employees with these emergency procedures.
 6. Procedures to contain or to minimize the likelihood that the discharge, fire, or explosion will be harmful to human health or the environment.
 7. Maintenance and repair of emergency response facilities, safety equipment, and communication equipment.

If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan or any other emergency or contingency plan, he need only amend that plan to incorporate

hazardous solid waste management provisions sufficient to comply with the requirements of this regulation.

Amendment of the emergency plan is required when:

1. Applicable rules and regulations are revised;
2. The procedures fail in an emergency;
3. The facility changes in its design, construction, operation, or maintenance;
4. The list of emergency coordinators changes; or
5. The list of emergency equipment changes.

F. Inspections.

1. The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing or lead to:
 - a. Release of hazardous solid waste or constituents to the environment, or
 - b. Any other threat to human health or the environment.

The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

2. The owner or operator must include in the facility operating plan a written schedule for

inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important for preventing, detecting, or responding to environmental or human health hazards. He must keep this schedule at the facility, and the schedule must identify the types of problems which are to be looked for during the inspection (e.g., inoperative sump pumps, leaking fittings, eroding dikes, etc.). The frequency of 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, must be inspected daily when in use.

3. The owner or operator must remedy any deterioration or malfunction of equipment or structure which the inspection reveals and must do so on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is

imminent or is already present, remedial action must be taken immediately.

4. The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three (3) years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

RULE 804 - GROUND-WATER MONITORING

A. Ground-Water Monitoring Program.

1. Within one (1) year after the effective date of this regulation (i.e., before November 13, 1981), all owners or operators of a treatment, storage, or disposal facility which uses or employs the land to manage hazardous solid waste (e.g., a hazardous solid waste landfill, surface impoundment, or land treatment facility) must implement a ground-water monitoring program capable of determining the facility's impact on the quality of the ground water in the uppermost aquifer underlying the facility.

2. Except as provided in Paragraph 4 of this section, all ground-water monitoring programs shall include a ground-water monitoring system that shall be designed, constructed, and operated to enable detection, on a permanent basis, of any degradation in ground water quality.
3. This ground-water monitoring program must be carried out during the active life of the hazardous waste facility, and for disposal facilities, during the post-closure care period as well.
4. All or part of the ground-water monitoring requirements of this rule may be waived if the owner or operator of the hazardous solid waste facility can demonstrate to the satisfaction of the Board that there is a low potential for migration of hazardous solid waste or its constituents from the facility via the uppermost aquifer to water supply wells (domestic, industrial, or agricultural) or to surface water. The demonstration must be certified by a qualified geologist or qualified soils engineer and must establish the following:
 - a. The potential for migration of hazardous solid waste or its constituents from the

facility to the uppermost aquifer, by an evaluation of:

- (1) The water balance of precipitation, evapotranspiration, run off, and infiltration; and
- (2) The unsaturated zone characteristics; and

b. The potential for hazardous solid waste or its constituents which enter the uppermost aquifer to migrate to a water supply well or surface water, by an evaluation of:

- (1) Saturated zone characteristics (i.e., geologic materials, physical properties, and depth to ground water); and
- (2) The proximity of the facility to water supplies or surface water.

5. If an owner or operator assumes (or knows) that ground-water monitoring of the indicated parameters established in Subparagraph (C)(2)(c) of this rule would show a statistically significant increase (or decrease in the case of pH), he may elect to install, operate, and maintain an alternate monitoring system. In this case, he must:

- a. Within one (1) year after the effective date of this regulation, submit to the

Board a specific plan, certified by a qualified geologist or a qualified soils engineer, which satisfies the requirements of Subparagraph (D)(4)(c);

- b. Not later than one (1) year after the effective date of this regulation, initiate the determinations specified in Subparagraph (D)(4)(d) of this rule;
- c. Prepare and submit a written report to the Board within fifteen (15) days after that determination;
- d. Continue to make these determinations on a quarterly basis until final closure of the facility; and
- e. Comply with all recordkeeping and reporting requirements.

B. Ground-Water Monitoring System.

The ground-water monitoring system that must be installed as part of a ground-water monitoring program will consist of the following:

1. Monitoring wells installed hydraulically upgradient from the limit of the waste management area. Their number, location, and depth must be sufficient to yield ground-water samples that are:
 - a. Representative of background ground-water

quality in the uppermost aquifer near the facility; and

- b. Not affected by the facility.
2. Not less than three (3) monitoring wells installed hydraulically downgradient at the limit of the waste disposal area. Their number, location, and depth must insure that they immediately detect any statistically significant amounts of hazardous solid waste constituents that migrate from the area into the uppermost aquifer.
 3. Separate monitoring systems for each waste management component or area of a facility are not required, provided that sampling upgradient or downgradient will detect any discharge from the waste disposal area.
 - a. For a facility consisting of only one surface impoundment, landfill, or land treatment area, the waste disposal area is described by the waste boundary of the impoundment, landfill, or treatment area.
 - b. For a facility consisting of more than one surface impoundment, landfill, or land treatment area, the waste disposal area is described by an imaginary boundary line which circumscribes the several waste disposal components.

4. Each monitoring well must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must be screened or perforated, and packed with gravel or sand where necessary, to enable sample collection at depths where appropriate aquifer flow zones exist. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed with a suitable material to prevent contamination of samples and ground water.

C. Ground-Water Sampling and Analysis Plan.

1. The owner or operator must develop and follow a ground-water monitoring plan. This plan must be submitted to the Board for its approval and be kept at the facility. It must include;
 - a. Procedures and techniques for collection of samples;
 - b. Procedures for preservation and shipment of samples;
 - c. Analytical procedures; and
 - d. Chain of custody control.
2. The owner or operator must determine the concentration or value of the following parameters in ground-water samples in accordance with Paragraph 3 and 4 of this

section;

a. Parameters (and maximum levels)

characterizing the suitability of the
ground water as a drinking water supply:

Parameter	EPA Interim Primary Drinking Water Standard Maximum Level (mg/l)
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(1) Arsenic	0.05
(2) Barium	1.0
(3) Cadmium	0.01
(4) Chromium	0.05
(5) Fluoride	1.4--2.4
(6) Lead	0.05
(7) Mercury	0.002
(8) Nitrate (as N) ..	10.0
(9) Selenium	0.01
(10) Silver	0.05
(11) Endrin	0.0002
(12) Lindane	0.004
(13) Methoxychlor	0.1
(14) Toxaphene	0.005
(15) 2,4-D	0.1
(16) 2,4,5-TP Silvex .	0.01
(17) Radium	5 pCi/l
(18) Gross Alpha	15 pCi/l
(19) Gross Alpha	4 millirem/yr
(20) Coliform Bacteria	1/100 ml

b. Parameters establishing ground-water
quality:

- (1) Chloride,
- (2) Iron,
- (3) Manganese,
- (4) Phenols,
- (5) Sodium, and
- (6) Sulfate.

COMMENT: These parameters are to be used
as a basis for comparison in the event a
ground-water quality evaluation is
required.

c. Parameters used as indicators of
ground-water contamination:

- (1) pH,
 - (2) Specific Conductance,
 - (3) Total Organic Carbon, and
 - (4) Total Organic Halogen.
3. For all monitoring wells, the owner or operator must:
 - a. On a quarterly basis for one year, establish initial background concentrations or values of all parameters specified in Paragraph 2 of this section.
 - b. For each of the indicator parameters specified in Subparagraph (2)(c) of this section, obtain at least four (4) replicate measurements for each sample and determine the initial background arithmetic mean and variance by pooling the replicate measurements for the respective parameter concentrations or value in samples obtained from upgradient wells during the first year.
4. After the first year, all monitoring wells must be sampled and the samples analyzed with the following frequencies:
 - a. For ground-water quality parameters (Subparagraph (2)(b) of this section) at least annually.
 - b. For ground-water contamination parameters (Subparagraph (2)(c) of this section) at

least semi-annually.

5. The elevation of the ground-water surface at each monitoring well must be determined each time a sample is obtained.

D. Ground-Water Quality Assessment Program.

1. Within one (1) year after the effective date of this regulation, the owner or operator must prepare and submit to the Board for its approval an outline of a more comprehensive ground-water quality assessment program than that described above in Sections A, B, and C. The more comprehensive program must be capable of determining:
 - a. Whether hazardous solid waste or its constituents have entered the ground water;
 - b. The rate and extent of migration of hazardous solid waste or its constituents in the ground water; and
 - c. The concentrations of hazardous solid waste or its constituents in the ground water.
2. For each parameter used as an indicator of ground-water contamination (Subparagraph (C)(2)(c)), the owner or operator must calculate the arithmetic mean and variance

based on at least four replicate measurements on each sample, for each well monitored, and compare these results with its initial background arithmetic mean. The comparison must individually consider each of the wells in the monitoring system, and must use the Student's t-test at the 0.01 level of significance to determine statistically significant increases (and decreases, in the case of pH) over initial background.

3. If the comparisons for the upgradient wells show a significant increase (or pH decrease), the owner or operator must submit this information to the Board. If the comparison for downgradient wells shows a significant increase (or pH decrease), the owner or operator must then immediately obtain additional ground-water samples from the downgradient wells where a significant difference was detected, split the sample in two, and obtain independent analysis of the additional samples to determine whether the significant difference was an error.
4. If the analysis performed under the preceding subparagraph confirms the significant increase (or decrease in pH), the owner or operator must:

- a. Submit a written notice to the Board within seven (7) days of the date of such confirmation that the facility may be affecting ground-water quality.
- b. Within fifteen (15) days after the initial notification, resubmit the more comprehensive ground-water monitoring assessment plan required by Paragraph 1 of this section and submit it with the certification of a qualified geologist or qualified soils engineer.
- c. The plan must specify:
 - (1) The number, location, and depth of wells;
 - (2) Sampling and analytical methods for the hazardous solid waste or constituents handled in the facility;
 - (3) Evaluation procedures, including any use of previously-gathered ground water quality information; and
 - (4) A schedule for implementation.
- d. The owner or operator must implement the ground-water quality assessment plan and, as a minimum, determine:
 - (1) The rate and extent of migration of the hazardous solid waste or constituents in the ground water;

and

- (2) The concentrations of the hazardous waste or its constituents in the ground water.
- e. The owner or operator must make his first determination of these matters as soon as technically feasible, and within fifteen (15) days after the determination, submit to the Board a written report containing an assessment of the ground-water quality.
 - f. If the owner or operator concludes that no hazardous solid waste or constituents from the facility have entered the ground water, then he may reinstate the indicator evaluation program described in Section B of this rule and submit a written report to the Board within fifteen (15) days.
 - g. If the owner or operator concludes, based on the determination required above in Subparagraph (e) of this paragraph that the hazardous solid waste or constituents from the facility have entered the ground water, he must continue to determine the rate and extent of migration and concentrations of hazardous solid waste or constituents in the ground water on a quarterly basis.

5. At least annually, the owner or operator must evaluate the data on ground-water surface elevations obtained under Paragraph (C)(5) of this rule to determine whether the requirements for locating the monitoring wells continues to be satisfied. If not, the owner or operator must immediately modify the number, location, or depth of the monitoring wells to bring the ground-water monitoring system into compliance with this requirement.

RULE 805 - CLOSURE AND POST-CLOSURE

A. Closure.

1. The requirements set forth below apply to the owners and operators of all hazardous solid waste facilities, except as provided in Rule 801.
2. The owner or operator of each hazardous solid waste facility must close his facility only in accordance with the following requirements:
 - a. In a manner that:
 - (1) Minimizes the need for further maintenance, and
 - (2) Controls, minimizes or eliminates, to the maximum extent feasible, post-closure release of hazardous

solid waste, hazardous solid waste constituents, leachate, contaminated run-off, or waste decomposition products to the ground water, to surface waters, or to the atmosphere.

- b. The owner or operator shall provide whatever systems and devices are necessary to protect ground water and surface waters and to control air emissions.
- c. In the case of land disposal facilities, the owner or operator shall cover the hazardous solid waste disposal area with at least two (2) feet of cover material.
- d. The owner or operator shall cover the area with adequate top soil and provide vegetation to prevent erosion.
- e. The owner or operator shall establish and maintain a final grade to divert surface water drainage around and away from the disposal area.
- f. The owner or operator shall submit to the Board a final plot plan with cross sections that delineate the exact location of each type of waste disposed of at the facility.
- g. The owner or operator of any hazardous solid waste facility must submit a closure

plan to the Board for its approval prior to being granted a permit to operate. The closure plan must indicate the steps needed to close the facility at any stage of its intended life and must include, at least:

- (1) A description of how and when the facility will be partially closed, if applicable, and how and when it will be ultimately closed;
 - (2) An estimate of the maximum inventory of wastes expected to be in storage or in treatment at any given time during the life of the facility;
 - (3) Procedures for decontamination of the facility and its equipment at closure; and
 - (4) A schedule for final closure which must include, as a minimum, the anticipated date when waste will no longer be received, the final closure date, and intervening milestone dates for tracking the progress of closure.
3. Closure plans must be submitted and amended as follows:
- a. The owner or operator must submit his closure plan to the Board at least 180

days before the date he expects to begin closure. The Board will modify, approve, or disapprove the plan within ninety (90) days of receipt and after providing the owner or operator and the affected public (through a newspaper notice) the opportunity to submit written comments.

- b. 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 must amend his plan any time changes in operating plans of facility design affect the closure plan.
4. The closure plan must be accurate when establishing financial requirements under Rule 806.
5. Within ninety (90) days after receiving the final volume of hazardous solid waste, the owner or operator must treat all hazardous solid waste in storage or in treatment, or remove them from the site, or must dispose of them on-site in accordance with the approved closure plan. The owner or operator must complete all closure activities in accordance with an approved closure plan within six (6)

months after receiving the final volume of waste. A longer period will only be approved if the owner or operator can demonstrate to the satisfaction of the Board that:

- (a) The planned closure activities will take him longer than six (6) months to complete, and
- (b) He has taken all feasible steps toward eliminating threats to human health or the environment.

- 6. When closure is completed, the owner or operator must take all appropriate measures to properly dispose of all facility equipment or structures or to decontaminate them by removing all hazardous solid waste and residues.
- 7. At completion of closure, the owner or operator shall submit to the Board a certification of closure prepared by a professional engineer licensed to practice in Puerto Rico and confirming that the facility has been closed in accordance with the requirements of this rule.
- 8. The owner or operator must maintain and operate the hazardous solid waste facility in accordance with all requirements of this regulation until the certification of closure is approved by the Board.

B. Post-Closure.

1. The post-closure requirements set forth below apply to the owners or operators of all hazardous solid waste disposal facilities, except as provided in Rule 801.
 - a. The owner or operator must close access to the facility and prevent additional disposal.
 - b. The owner or operator shall maintain whatever systems and devices are necessary to protect ground water and surface water and to control air emissions.
 - c. The owner or operator shall maintain the ground-water leachate monitoring systems required by this regulation and shall do so in accordance with all of the requirements herein and for as long as the Board determines that the hazardous solid waste poses a threat to human health or the environment.
 - d. The owner or operator shall maintain the site security system to insure that accumulated hazardous solid waste does not become a threat to human health or the environment.
 - e. The owner or operator will also maintain all system elements used to contain

hazardous solid waste, including final cover, liners, and any other detection or containment device.

f. The owner or operator of a disposal facility must provide post-closure care in accordance with the post-closure plan (described below) for at least thirty (30) years after the date of completing closure. However, the post-closure care period of thirty (30) years could be discontinued or altered if the owner or operator can demonstrate to the satisfaction of the Board that the disposal facility represents no threat to human health or the environment. At the end of the specified period of time, the Board will determine whether to continue or terminate the post-closure care and maintenance at the facility.

2. The owner or operator shall also submit a post-closure plan to the Board in accordance with the following requirements:

a. Six (6) months after the effective date of this regulation, the owner or operator of a hazardous solid waste disposal facility must have a written post-closure plan. This plan must identify the activities

that will be carried on after final closure and frequencies of those activities and must do so in sufficient detail to demonstrate to the Board that all of the post-closure requirements will be satisfied.

The post-closure plan must include at least the following:

- (1) A description of the planned ground-water monitoring activities and frequencies at which they will be performed (as specified in Rule 804 of this regulation) during the post-closure period; and
- (2) A description of the planned maintenance activities and frequencies at which they will be performed to ensure:
 - (a) The integrity of the cap and final cover or other containment structures as specified in Sections 817(B), 817(F), 816(C), and 819(I), where applicable; and
 - (b) The function of the facility monitoring equipment as specified in Rule 804.

- b. The owner or operator of a hazardous solid waste disposal facility must amend his post-closure plan any time it is affected by changes in the facility operating plan or design.
- c. The owner or operator of a hazardous solid waste disposal facility must submit his post-closure plan to the Board pursuant to all of the procedures for granting a permit to operate set forth in Part IX of this regulation.
- d. The owner or operator of a hazardous solid waste disposal facility must submit this post-closure plan to the Board at least 180 days before the date he expects to begin closure. The Board will modify, approve, or disapprove the plan within ninety (90) days of receipt and after providing the owner or operator and the affected public (through a newspaper notice) the opportunity to submit written comments. Any amendments to the plan which occur after closure must also be approved by the Board.

C. Notice in Deed to Property.

The owner of property on which a hazardous solid

waste disposal facility is located must record (in accordance with Commonwealth of Puerto Rico law) a notation on the Registry of Deeds (to the facility property) and on any other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser that:

1. The land has been used to manage hazardous solid waste; and
2. Post-closure use of property on or in which hazardous solid waste remains after closure must never be allowed to disturb the integrity of the final cover, of liners or any other components of any containment system, or of the facility's monitoring systems, unless the owner or operator can demonstrate to the satisfaction of the Board, either in the post-closure plan or by petition, that the disturbance:
 - a. Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or
 - b. Is necessary to reduce a threat to human health or the environment.

D. Notice to Planning Board and to the Environmental Quality Board.

1. Within ninety (90) days after closure is completed, the owner or operator of a hazardous solid waste disposal facility must submit to the Planning Board and to the Environmental Quality Board a survey plat indicating the locations and dimensions of landfill cells (or other disposal areas) with respect to permanently surveyed benchmarks.
2. This plat must be prepared and certified by an engineer or surveyor with a license for surveying in Puerto Rico.
3. The plat must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbances of the site as specified above in Paragraph (C) (2) of this rule.
4. The owner or operator must submit to the Planning Board and to the Environmental Quality Board a record of the type, location, and quantity of all hazardous solid waste disposed of within each cell or area of the facility. For wastes disposed of before these regulations were promulgated, the owner or operator must identify the type, location, and quantity of such waste to the best of his knowledge and in

accordance with any records he has kept.

E. Application to Prior Disposal Sites.

The Board may require the owner of the land on which hazardous solid waste has been disposed of prior to the effective date of this regulation (whether or not a hazardous solid waste facility is still being operated on that date) to comply with the requirements of this rule.

RULE 806 - FINANCIAL REQUIREMENTS

A. Financial Arrangement for Closure and Post-Closure Obligations and for Potential Liabilities.

An owner or operator of a hazardous solid waste facility must establish and continue in effect financial arrangements that are adequate to pay for all closure and post-closure obligations and any liability that may result from harm that operation of the facility may cause to human health or to the environment. The Board, in granting a permit to operate, shall establish the amount of this financial requirement and shall approve the particular financial arrangement.

B. Financial Arrangement to Continue After Closure.

An owner or operator who closes a hazardous solid

waste facility, on his own or pursuant to an order of the Board, EPA, or Courts of the Commonwealth of Puerto Rico, must continue in effect the financial arrangements required under this rule.

C. Submission of Financial Arrangements and Determination of Potential Liability.

Upon submission of an application for a permit to operate, the owner or operator of all hazardous solid waste facilities, except as provided by Rule 801, will submit to the Board:

1. As required below, written estimates of the cost of closing the facility in accordance with the requirements of Section 805(A) and, for disposal facilities, estimates of the cost of post-closure under Section 805(B);
2. A written risk analysis used to determine the likelihood and amount of potential liability for harm to human health or the environment; and
3. A written description of the financial arrangements that will be established, including copies of all instruments or documents needed to establish such arrangements.

D. (Reserved)

E. Financial Arrangement Exceptions.

The requirements of this rule apply to all owners and operators of hazardous solid waste facilities except:

1. As provided in Rule 801, and
2. The Commonwealth of Puerto Rico and the federal government.

F. Determination of Closure Cost.

The cost of closing the facility must be determined in accordance with the following requirements:

1. The estimate must 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 the most expensive, as indicated by the facility's closure plan.
2. The owner or operator must prepare a new closure cost estimate whenever a change in the closure plan affects the cost of closure.
3. On each anniversary of the effective date of this regulation the owner or operator must adjust the latest closure cost estimate using current estimated inflation factors.

G. (Reserved)

H. Determination of Post-Closure Cost.

Cost estimates for post-closure monitoring and maintenance must be prepared in accordance with the following requirements:

1. The owner or operator must prepare a new estimate of annual post-closure costs whenever a change in the post-closure plan affects the annual cost of post-closure care. The latest post-closure cost estimate is calculated by multiplying the latest annual post-closure cost by thirty (30).
2. On each anniversary of the effective date of these regulations during the operating life of the facility, the owner or operator must adjust the latest post-closure cost estimate using current estimated inflation factors.

I. (Reserved)

J. (Reserved)

K. Resubmission of Financial Arrangement.

If the revised estimates of closure and post-closure cost increase the amount of the required financial requirement by twenty-five percent (25%) or more, the owner or operator of the facility shall resubmit the written description of the financial arrangement for the facility to the Board for its approval.

RULE 807 - HUMAN HEALTH AND ENVIRONMENT REQUIREMENTS

A. Injection Wells.

The owner or operator of a hazardous solid waste facility shall not discharge hazardous solid waste directly into the ground by means of injection wells or any other structures or devices used for the purpose of injecting substances or materials beneath the surface.

B. Surface Water Pollution.

1. All hazardous solid waste facilities shall be located, designed, constructed, and operated in such a manner as to prevent any surface or subsurface discharge from the facility into the waters of the Commonwealth of Puerto Rico.
2. All hazardous solid waste facilities shall provide adequate measures to prevent surface water runoff from entering areas of operation and to prevent the collection of standing water within the facility.

C. Ground-Water Pollution.

All hazardous solid waste facilities shall be located, designed, constructed, operated, and maintained in such a manner as to prevent the

hazardous solid waste, or its constituents, from causing or contributing to ground water pollution.

D. Air Pollution.

1. All hazardous solid waste facilities shall be located, designed, constructed, operated, and maintained in such a manner as to prevent air emissions from such facilities from causing violations of the Board's Regulation for the Control of Atmospheric Pollution, as amended, or violators of the airborne contaminant levels established in 29 CFR 1910.1000 pursuant to the federal Occupational Safety and Health Act.
2. The owner or operator shall take all feasible measures to minimize odors in accordance with Rule 420 of the Board's Regulation for the Control of Atmospheric Pollution, as amended.
3. Hazardous solid waste in the form of powder, dust, or fine solids shall be treated, stored, or disposed of in covered containers to prevent the release of hazardous solid waste gases, mists, or vapors where the emitted hazardous materials could result in a hazard to public health and safety or to the environment.

E. Noise Pollution.

All hazardous waste facilities shall be located

designed, constructed, operated, and maintained in such a manner as to prevent excessive noise.

F. Waste Handling Areas.

1. No hazardous solid waste may be stored, treated, or disposed of at any hazardous solid waste facility in places not designated for these purposes in the operations manual prepared pursuant to Rule 811.
2. A site plan showing the exact location of all hazardous solid waste that has been disposed of must be maintained at the facility at all times.
3. The owner or operator must maintain the waste disposal areas in such a manner as to prevent any commingling of incompatible hazardous solid waste.

G. Removal of Disposed of Hazardous Solid Waste.

1. Hazardous solid waste that has been disposed of in a designated hazardous solid waste disposal area shall not be excavated, removed, or recovered without the written approval of the Board.
2. All subsequent handling, storage, transportation, treatment, and final disposal of such hazardous solid waste shall be in

conformance with this regulation.

3. A completed manifest shall accompany such waste if it is transported to an off-site hazardous solid waste facility.

H. Combined Non-Hazardous and Hazardous Solid Waste Management Facilities.

The owner or operator of any hazardous solid waste management facility that handles both hazardous solid waste and non-hazardous solid waste shall take appropriate safety measures to keep the public from being exposed to the hazardous solid waste.

I. Physical and Chemical Analysis.

1. All owners or operators of hazardous solid waste facilities must obtain a complete and detailed chemical and physical analysis of all waste to be handled at the facility at the time of initiating hazardous solid waste operations.
2. The owner or operator of an off-site hazardous solid waste facility must inspect and, if necessary, analyze each truckload or other shipment or batch of hazardous solid waste designated for treatment, storage, or disposal at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

3. The detailed chemical and physical analysis required in Paragraph 1 of this section may include existing published or documented data on the hazardous solid waste or on waste generated from similar processes, and the owner or operator of an off-site facility may arrange for the generator of the hazardous solid waste to supply part or all the information required by Paragraph 1.
4. The detailed waste analysis must be performed not less than annually or repeated as necessary to ensure that it is accurate. At a minimum, it must be repeated:
 - a. When the owner or operator is notified, or has reason to believe, that the process or operation generating the waste has changed, and
 - b. When results of an inspection indicate that the hazardous solid waste does not match the waste designated in the accompanying manifest or shipping papers.
5. The owner or operator must develop and follow a written hazardous solid waste analysis plan which describes the procedures for the detailed chemical analysis and the procedures which will be used to inspect shipments of the hazardous solid waste.

6. No owner or operator shall accept any hazardous solid waste unless the transporting container of the waste has affixed to it an identifying label listing the following information:
 - a. Generator's name,
 - b. Waste type,
 - c. Generic name of the major hazardous waste component,
 - d. Date of containerization, and
 - e. Manifest number.

7. An owner or operator of a hazardous solid waste facility must not treat or dispose of ignitable, corrosive, toxic, reactive, volatile, or incompatible waste in a landfill, surface impoundment, or land treatment facility, unless the owner or operator can demonstrate to the Board, at the time of the request for an operating permit, that such treatment or disposal facility will not:
 - a. Damage the structural integrity of the land treatment facility, surface impoundment, or landfill, or
 - b. Affect the attenuation capacity of any land treatment facility through heat generation, fires, or explosive reactions.

RULE 808 - EQUIPMENT, PERSONNEL, AND TRAINING REQUIREMENTS

A. Equipment.

The owner or operator shall have all equipment necessary for the operation of the hazardous solid waste facility in accordance with these rules. All equipment shall be maintained so that it is fit for the purpose for which it was intended.

Equipment used at the hazardous solid waste facility that is contaminated with hazardous solid waste, including but not limited to storage containers, processing equipment, and vehicles shall be decontaminated prior to being serviced or used in an area not used for hazardous solid waste handling. Residues and residual water from such decontamination process shall be disposed of in an appropriate manner within the facility.

B. Personnel.

1. The owner or operator of a hazardous solid waste facility shall have trained personnel at the facility to provide effective and timely operations, maintenance, environmental control, recordkeeping, emergency response, and health and safety measures.
2. The owner or operator shall also provide trained and properly equipped personnel at the facility

who are capable of determining and attesting to the accuracy of the type of waste identified on each manifest received or shall have available and under contract a laboratory capable of providing the same service.

3. The owner or operator of a hazardous solid waste facility shall also provide adequate supervision to ensure that the operation of the facility and the activities conducted at it are in compliance with all applicable rules and regulations.
4. The owner or operator shall require personnel to wear appropriate clothing and safety equipment to avoid being contaminated by hazardous solid waste.

C. Training of Personnel.

1. Within six (6) month of the effective date of this regulation, or after the date of employment, whichever is later, personnel at new and existing hazardous solid waste facilities shall have attended special training courses in hazardous solid waste management procedures appropriate to the positions in which they are employed.
2. All facility personnel must successfully complete a program of classroom instruction or

on-the-job training that teaches them to perform their duties in a way that ensure the facility's compliance with the requirements of this regulation. The owner or operator must ensure that this program includes all the elements described in the documents required under Paragraph 5 below.

- a. This program must be directed by a person trained in hazardous solid waste management procedures, and must include instruction which teaches facility personnel hazardous solid waste management procedures (including contingency plan implementation) appropriate to the positions in which they are employed.
- b. At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:
 - (1) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
 - (2) Key controls for automatic waste feed cut-off;

- (3) Communications or alarm systems;
 - (4) Response procedures for fires or explosions;
 - (5) Response procedures for ground-water contamination incidents; and
 - (6) Operation shutdown procedures.
3. Facility personnel must successfully complete the program required above in Paragraph 2 within six (6) months after the effective date of this regulation or six (6) months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of Paragraph 2.
4. Facility personnel must take part in an annual review of the initial training required in Paragraph 2.
5. The owner or operator must maintain the following documents and records at the facility:
- a. The job title for each position at the facility related to hazardous solid waste management and the name of the employee filling each job;

- b. A written job description for each position at the facility;
 - c. A written description of the type and amount of both introductory and continuing training that will be given to each person; and
 - d. Records that document that the training or job experience has been given to, and completed by, facility personnel.
6. Training records on current personnel must be kept until closure of the facility.

RULE 809 - IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

A. Precautions for Ignitable or Reactive Waste.

The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. Such waste must be separated and protected from sources of ignition and reaction.

B. Handling of Ignitable, Reactive, or Incompatible Waste.

The treatment, storage, or disposal of ignitable, reactive waste, and the mixture or commingling of incompatible waste, or incompatible waste materials, must be conducted so that it does not:

- 1. Generate extreme heat or pressure, fire or explosion, or violent reaction;
- 2. Produce uncontrolled toxic mists, fumes, dusts,

or gases in sufficient quantities to threaten human health;

3. Produce uncontrollable flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
4. Damage the structural integrity of the device or facility containing the waste; or
5. Through other like means, threaten human health or the environment.

RULE 810 - PREPAREDNESS AND PREVENTION

A. Applicability.

The requirements in this rule apply to owners and operators of all hazardous solid waste facilities, except as Rule 801 provides otherwise.

B. Maintenance and Operation of the Facility.

Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous solid waste or hazardous solid waste constituents into air, soil, or water which could threaten human health or the environment.

C. Required Equipment.

All facilities must be equipped with the following equipment unless the Board determines that none of the hazards posed by the waste handled at the facility could possibly require such equipment:

1. An internal communications or alarm system capable of providing immediate emergency instruction (by voice or signal) to all facility personnel;
2. A device (such as a telephone immediately available at the scene of operations or a hand-held, two-way radio) capable of rapidly summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;
3. Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and
4. Water at adequate volume and pressure to supply water hose systems, foam producing equipment, automatic sprinklers, or water spray systems.

D. Testing and Maintenance of Equipment.

All facility communications or alarm systems, fire protection equipment, spill control equipment, and

decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

E. Access to Communications or Alarm System.

Whenever hazardous solid waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee. If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device (such as a telephone immediately available at the scene of operation or a hand-held, two-way radio) capable of summoning external emergency assistance.

F. Required Aisle Space.

The owner or operator must maintain sufficient aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the facility operation in an emergency, unless aisle space is not needed for any of these purposes.

G. Arrangement with Local Authorities.

1. The owner or operator must make the following

arrangements, as appropriate for the type of waste handled at his facility and the potential need for such service:

- a. Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, with properties of the hazardous solid waste handled at the facility and associated hazardous places where facility personnel would normally be working, with entrances to roads inside the facility, and with possible evacuation routes;
- b. Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police or fire department, and agreements with any others to provide support to the primary emergency authority;
- c. Agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and
- d. Arrangements to familiarize local hospitals with the properties of hazardous solid waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or

releases at the facility.

When state or local authorities decline to enter into such agreements or arrangements, the owner or operator must document the refusal in the operating record and must inform the Board.

RULE 811 - OPERATIONS MANUAL

A. Preparation of Operations Manual.

The owner or operator of a hazardous solid waste facility shall prepare an operations manual and shall have it available within the facility.

B. Minimum Contents of Operations Manual.

The operations manual shall indicate the manner in which the hazardous solid waste facility will comply with this regulation, including but not limited to:

1. Operating procedures to be followed at the facility to protect public health and the environment.
2. Procedures for receiving, identifying, and monitoring hazardous solid waste.
3. A list of personnel by job-title.
4. A list of equipment used by the facility as required by Rule 808.
5. Known or anticipated types, general characteristics, and weight or volume of

- environmental monitoring stations and pollution control systems.
- f. Location of power lines, pipelines, and easements through the hazardous solid waste facility.
 - g. Surface water courses and wetlands.
 - h. Locations for each waste type, with delineation of waste that are not compatible.
 - i. Location of all storage facilities with estimated maximum storage times.
 - j. Methods for logging shipments into and out of inventory.
9. The operations manual shall also include a site plan certified and signed by an engineer or surveyor licensed to practice in Puerto Rico which shall be drawn to a minimum scale of one (1) inch to two hundred (200) feet (1:2,400) or any other scale previously approved by the Board which shall encompass all areas within one quarter (1/4) mile from the property lines and shall include the following: zoning, buildings, surface waters, wetlands, roads, boring locations, and extent of the 100-year flood.
10. For land disposal facilities, the operations manual shall also include a cross section plan drawn to a horizontal scale of not more than

hazardous solid waste received or handled.

6. Maintenance and inspection schedules for ensuring that containers in storage are properly labeled and not leaking.
7. Procedures to be employed by facility personnel reacting to spills or other emergency situations that could arise during facility operations.
8. A site plan, certified and signed by a professional engineer licensed to practice in Puerto Rico, which shall include the following:
 - a. A plot plan drawn at a scale of not more than one (1) inch to two hundred (200) feet (1"=200').
 - b. For land disposal facilities, the plot plan shall include the proposed final elevations of the completed site, at not more than five (5) foot intervals.
 - c. Legal boundaries of the areas in which a right to possession is held by the facility operator or owner.
 - d. Location of permanent facilities such as access roads, fences, loading and unloading facilities, stationary equipment, cleaning areas and treatment, storage, and disposal areas.
 - e. Locations and descriptions of

one (1) inch to two hundred (200) feet (1"=200') and a vertical scale of one (1) inch to ten (10) feet (1"=10'). The required information on the cross section plan includes the following:

- a. Proposed lift,
 - b. Maximum ground-water table,
 - c. Bedrock location,
 - d. Surface drains and ditches,
 - e. Final fill elevation and grades,
 - f. Limits of excavation,
 - g. Final cover elevations,
 - h. Access roads,
 - i. Leachate collection systems (if required),
 - j. Gas venting facilities (if required), and
 - k. Ground-water monitoring systems.
11. The operations manual shall include a ground-water plan certified and signed by a professional engineer licensed to practice in Puerto Rico, drawn to a minimum scale of one (1) inch to two hundred (200) feet (1"=200') showing the maximum ground-water elevations.
12. For all hazardous solid waste facilities, the operations manual shall include a closure plan, and for hazardous solid waste disposal facilities, it shall include a post-closure plan.

RULE 812 - REQUIREMENTS FOR STORAGE OF HAZARDOUS SOLID WASTE
IN CONTAINERS

A. Applicability.

This rule applies to owners and operators of all hazardous solid waste facilities that store containers of hazardous solid waste, except as provided under Rule 801.

B. Facility Requirements.

1. Hazardous solid waste facilities that store containers of hazardous solid waste must have a continuous base which is impervious to the stored waste and which is constructed so that any surface runoff or spill can be contained until the waste can be removed for treatment or final disposal.
2. The owner or operator shall provide special equipment such as lifts, ramps, and lines to remove containerized hazardous solid waste from vehicles and containers if necessary to prevent hazards to the environment and to the health and safety of the public or employees.
3. If exposure of the containers to moisture or direct sunlight will create a hazardous condition, the facility operator shall store the containers in an area with a roof or other

overhead covering that does not obstruct the visibility of labels.

4. The owner or operator storing hazardous solid waste containers shall provide sufficient confinement structures to contain leakage or spills within the designated storage area, including but not limited to dikes, berms, or trenches.
5. Containers holding ignitable or reactive waste must be located at least fifteen (15) meters (fifty (50) feet) from the facility property boundary.

C. Container Requirements.

1. The owner or operator shall not store hazardous solid waste in containers at the hazardous solid waste facility unless the container is of sturdy, leak-proof construction. Containers shall be of adequate wall thickness, of adequate weld, hinge, and seam strength, and of sufficient strength to withstand side and bottom shock, while filled, without impairment of the ability of the container to fully contain the hazardous solid waste.
2. Lids, caps, valves, hinges, or other closure devices shall be of sufficient strength and construction so that when closed they will withstand dropping, overturning, or other shock

without impairment of the container's ability to contain hazardous solid waste.

3. Containers and their closures shall be constructed of materials, or protected by a liner, that will not undergo chemical reaction with the contained waste.
4. Corroded or damaged containers shall not be used to store hazardous solid waste.
5. The owner or operator of a hazardous solid waste facility may provide for the recycling of containers by returning them to a container reconditioner. While the container remains at the facility, the owner or operator must manage the container as a hazardous solid waste.

D. Handling Containers.

1. Containers may be opened and emptied within a hazardous solid waste facility only if the nature of the waste, or degree of hazard, and the precautions taken preclude fires, violent reactions, creation of extremely hazardous solid waste, or contamination of persons with hazardous solid waste. Containers holding hazardous solid waste shall not be opened, handled, or disposed of in a manner which may rupture the containers, or cause them to leak before they are buried; and they may be buried

only in strict compliance with the requirements in Rule 816.

2. Except during filling or emptying the container, it shall be securely closed so that there is no escape of hazardous solid waste or vapors. In the event a container needs to be vented, it shall be equipped with a vapor control system, if vapor emissions would otherwise exceed applicable air quality standards.
3. The following special procedures shall be taken when handling incompatible waste:
 - a. The owner or operator shall not create a situation where incompatible waste or material can contact each other.
 - b. The owner or operator shall ensure that storage containers holding waste which might be incompatible will be separated from each other or protected from each other in order to prevent the waste from mixing should the containers break.
 - c. The owner or operator must not add any waste to an unwashed storage container that previously held incompatible waste.
 - d. Incompatible waste, or incompatible waste and other material must not be placed in the same container, unless in compliance

with Section 809(B).

E. Inspection.

1. The owner or operator must at all times provide a means to locate and identify all hazardous solid waste stored within the facility.
2. The owner or operator of a facility that stores hazardous solid waste containers must inspect, at least weekly, the areas where the containers are stored, looking for leaks and for deterioration caused by corrosion or other factors.

RULE 813 - STORAGE AND TREATMENT TANKS

A. Applicability.

This rule applies to owners and operators of facilities that use tanks to treat or store hazardous solid waste, except as provided in Rule 801.

B. Operating Requirements.

1. Treatment or storage of hazardous solid waste in tanks must be in compliance with Section 809(B).
2. Hazardous solid waste or treatment reagents must 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.

3. Uncovered tanks must be operated to ensure at least sixty (60) centimeters (two (2) feet) of freeboard, unless the tank is equipped with a containment structure (e.g., dike or trench), a drainage control system, or a diversion structure (e.g., standby tank) and such devices have a capacity that equals or exceeds the volume of the top sixty (60) centimeters (two (2) feet) of the tank.
4. Where hazardous solid waste is continuously fed into the tank, the tank must be equipped with the means to stop this inflow (e.g., a waste feed cutoff system or by-pass system to a stand-by tank).

C. Waste Analysis and Trial Tests.

In addition to the waste analysis required by Rule 807, whenever a tank is to be used to:

1. Chemically treat or store a hazardous solid waste which is substantially different from the waste previously treated or stored in that tank, or
2. Chemically treat a hazardous solid waste with a substantially different process than any

previously used in that tank,

The owner or operator, before treating or storing the different waste or using the different process must:

1. Conduct waste analyses and trial treatment or storage tests (e.g., bench scale or pilot plant scale tests); or
2. Obtain written, documented information on similar storage or treatment of similar waste under similar operating conditions to show that this proposed treatment or storage will meet all applicable requirements of Paragraphs (B) (1) and (2) of this rule.

D. Inspections.

1. The owner or operator of a tank must inspect, if applicable:
 - a. Discharge control equipment (e.g. waste feed cut-off systems, by-pass systems, or drainage systems) at least once each operating day, to ensure that it is in good working order;
 - b. Data gathered from monitoring equipment (e.g., pressure and temperature gauges) at least once each operating day, to ensure that the tank is being operated according to its design;

- c. The level of waste in the tank, at least once each operating day;
- d. The construction materials of the tank, at least weekly, to detect corrosion or leaking of fixtures or seams; and
- e. The area immediately surrounding discharge confinement structures (e.g. dikes), at least weekly, to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).

E. Closure.

At closure, all hazardous solid waste and hazardous solid waste residues must be removed from tanks, control equipment, and discharge confinement structures. (At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with Rule 102, that any solid waste removed from his tank is not a hazardous solid waste, the owner or operator becomes a generator of hazardous solid waste and must manage it in accordance with all applicable requirements.)

F. Special Requirements for Ignitable or Reactive Waste.

- 1. Ignitable or reactive waste must not be placed in a tank, unless:

- a. 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 Rule 809 is complied with; or
 - b. The waste is stored or treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react; or
 - c. The tank is used solely for emergencies.
2. The owner or operator of a facility which treats or stores ignitable or reactive waste in covered tanks must comply with the National Fire Protection Association's (NFPA's) buffer zone requirements for tanks. These requirements are contained in Tables 2-1 through 2-6 of the "Flammable and Combustible Code - 1977."

G. Special Requirements for Incompatible Waste.

1. Incompatible waste, or incompatible waste and material, must not be placed in the same tank, unless in compliance with Rule 809.
2. Hazardous waste must not be placed in an unwashed tank which previously held an

incompatible waste or material, unless Rule 809 is complied with.

H. (Reserved)

I. (Reserved)

RULE 814 - INCINERATORS

A. Applicability.

1. This rule applies to owners and operators of facilities that treat hazardous solid waste in incinerators, except as Rule 801 provides otherwise.
2. The Board may, in establishing permit conditions, exempt ignitable waste from all requirements of this rule (except waste analysis and closure) if the waste to be burned:
 - a. Is either listed as a hazardous solid waste in Rule 608 of this regulation only because it is ignitable or has been tested against the characteristics of hazardous solid waste under Rule 604 of this regulation and meets only the ignitability characteristic; and
 - b. According to the waste analyses included with the permit application, includes none

of the hazardous solid waste listed in Rule 608 of the regulation.

3. The owner or operator of an incinerator may conduct trial burns subject to the requirements of Section 912(M).

B. Waste Analysis.

The owner or operator of an incinerator burning hazardous solid waste must first obtain a detailed chemical and physical analysis of a representative sample of the waste. In addition, the owner or operator must conduct trial burns to enable him to establish normal operating conditions (including waste and auxiliary fuel feed and air flow) and to determine the type of pollutants which might be emitted. At a minimum, the analysis must determine:

1. Heating value of the waste;
2. Concentration of halogens in the waste;
3. Concentration of sulfur in the waste; and
4. Concentrations of lead and mercury in the waste, unless the owner or operator has written, documented data that show that the element is not present.

COMMENT: The owner or operator must keep the results from each waste analysis, or the documented information, in the operating record of the facility.

C. Inspection and Monitoring.

The owner or operator of an incinerator burning hazardous solid waste must at least conduct the following monitoring and inspections when incinerating hazardous solid waste:

1. At least every fifteen (15) minutes, the owner or operator must inspect existing instruments which relate to combustion and emission control, including but not limited to:
 - a. Instruments measuring waste feed;
 - b. Auxiliary fuel feed;
 - c. Air flow;
 - d. Incinerator temperature;
 - e. Scrubber pH; and
 - f. Relevant level controls.

Appropriate corrections to maintain steady state combustion conditions must be made immediately either automatically or by the operator.

2. At least on an hourly basis, the stack plume must be observed for normal appearance (color and opacity) and for compliance with the Regulation for the Control of Atmospheric Pollution, as amended.
3. At least on a daily basis, the complete incinerator and associated equipment (e.g. pumps, valves, conveyors, pipes, etc) must be

inspected for leaks, spills, and fugitive emissions.

4. At least on a daily basis, all emergency shutdown controls and system alarms must be inspected to assure proper operation.

D. Operating Condition.

During start-up and shut-down of an incinerator, the owner or operator must not feed hazardous solid waste unless the incinerator is at steady state (normal) condition of operation, including steady state operating temperature and air flow.

E. (Reserved)

F. Closure.

1. At closure, the owner or operator must remove all hazardous solid waste and residue (including but not limited to ash, scrubber waters, and scrubber sludges) from the incinerator.
2. Owners or operators of incinerators burning hazardous solid waste must demonstrate to the satisfaction of the Board that any solid waste or residue removed from his incinerator throughout the operating period, or at closure, is not a hazardous solid waste. If not, the

owner or operator becomes a generator of hazardous solid waste and must manage it in accordance with all applicable requirements of this regulation.

RULE 815 - THERMAL TREATMENT

A. Applicability.

This Rule applies to owners or operators of facilities that thermally treat hazardous solid waste in devices other than incinerators, except as Rule 801 provides otherwise. Thermal treatment in incinerators is subject to the requirements established in Rule 814.

B. (Reserved)

C. (Reserved)

D. General Operating Requirements.

Before adding hazardous solid waste, the owner or operator must bring his thermal treatment 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 solid waste.

E. Waste Analysis.

The owner or operator of a thermal treatment facility treating hazardous waste must obtain a detailed chemical and physical analysis of a representative sample of the waste. In addition, the owner or operator must sufficiently analyze any waste which he has not previously treated 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 must determine:

1. Heating value of waste;
2. Halogen content in the waste;
3. Sulfur content in the waste;
4. Concentrations of mercury and lead in the waste, unless the owner or operator has written, documented data that show that the element is not present.

The owner or operator must keep the results from each waste analysis, or the documented information, in the operating record of the facility.

F. Monitoring and Inspecting.

The owner or operator of a thermal treatment

facility treating hazardous solid waste must conduct at least the following monitoring and inspections when thermally treating hazardous solid waste:

1. Existing instruments which relate to temperature and emission control (if an emission control device is present) must be monitored at least every fifteen (15) minutes. Appropriate corrections to maintain steady state (normal) or other appropriate thermal treatment conditions must be made immediately, either automatically or by the operator. Instruments which relate to temperature and emission control would normally include those measuring waste feed, auxiliary fuel feed, treatment process temperature, and relevant process flow and level controls.
2. At least on an hourly basis, the stack plume must be observed for normal appearance (color and opacity) and for compliance with the Regulation for the Control of Atmospheric Pollution, as amended.
3. At least on a daily basis, the complete thermal treatment process and associated equipment (pumps, valves, conveyors, pipes, etc.) must be inspected for leaks, spills, and fugitive emissions.
4. At least on a daily basis, all emergency

shutdown controls and system alarms must be checked to assure proper operation.

G. (Reserved)

H. (Reserved)

I. (Reserved)

J. Closure.

1. At closure, the owner or operator must remove all hazardous solid waste and residue (including, but not limited to, ash and sediments) from the thermal treatment process or equipment.
2. Owners or operators of thermal treatment facilities treating hazardous solid waste must demonstrate to the satisfaction of the Board that any solid waste or residue removed from his thermal treatment process or equipment is not a hazardous solid waste. If not, the owner or operator becomes a generator of hazardous solid waste and must manage the waste in accordance with all applicable requirements of this regulation.

RULE 816 - HAZARDOUS SOLID WASTE LANDFILLS

A. Applicability.

This Rule applies to owners and operators of facilities that dispose of hazardous solid waste in landfills, except as provided in Rule 801. This rule also applies to waste piles when used as a disposal facility.

B. General Requirements.

Hazardous solid waste landfills shall be located, designed, constructed, and operated in accordance with the following minimum requirements:

1. A landfill shall be located, designed, constructed, and operated to prevent any contact between the hazardous solid waste and its constituents with the ground water or surface waters of Puerto Rico.
2. A landfill shall be located, designed, and constructed so that the bottom of its liner system or natural in-place soil barrier is at least 1.5 meters (five (5) feet) above the historical high water table, unless the owner or operator can demonstrate at the time a permit is issued that no direct contact will occur between the landfill and the water table and a leachate monitoring system can be adequately installed

and maintained in the lesser space.

3. A landfill shall be at least 150 meters (500 feet) from any public or private water supply or livestock water supply.
4. A landfill shall be located, designed, constructed, and operated to minimize erosion, landslides, and slumping.
5. A landfill shall be located, designed, constructed, and operated so that its liner system or natural in-place soil barrier is compatible with all of the waste to be landfilled.
6. The exact position of each hazardous solid waste and of each cell shall be located and recorded with respect to permanently surveyed bench marks. The contents of each cell shall also be recorded, and these records shall be retained as required by Part V.
7. Wastes, containerized or non-containerized, that are incompatible shall not be disposed of in a landfill except as provided in Section E below.
8. Containers of liquid hazardous solid waste shall not be disposed of in landfills except in accordance with the requirements of Section F below.
9. The following hazardous solid waste shall not

be disposed in a landfill:

- a. Ignitable and reactive waste.
 - b. Incompatible waste, except as provided in Section E below.
 - c. Bulk liquids, semi-solids, and wastes containing free liquids, except as provided in Section F below.
10. Diversion structures (e.g., dikes and drainage ditches) shall be constructed so that surface water runoff will be prevented from entering the landfill.
 11. Surface water which has been in contact with the active portions of a landfill shall be collected and treated or disposed of as a hazardous solid waste in accordance with requirements in this regulation unless it is tested and found to be non-hazardous; in which case, it may be discharged through a point source to waters of Puerto Rico if the discharge complies with all requirements of the Clean Water Act, including the water quality standards of Puerto Rico.
 12. Where gases are generated within the landfill, a gas collection and control system shall be installed to control the vertical and horizontal escape of gases from the landfill.
 13. A minimum of fifteen (15) centimeters (six (6)

inches) of cover material shall be applied daily on active portions of a landfill. Active portions which will not have additional waste placed on them for at least one (1) week shall be covered with thirty (30) centimeters (twelve (12) inches) of cover material. An owner or operator may use covers of different thicknesses and apply them at different frequencies if he can demonstrate to the Board at the time a permit is issued that the possibility of fire or explosion or the harboring, feeding, or breeding of burrowing animals and vectors will be controlled to an equivalent degree.

Twenty-four (24) inches of cover material shall be applied to areas which will not receive additional waste.

14. In areas where evaporation exceeds precipitation by twenty (20) inches or more and where natural geologic conditions allow, a landfill shall have a natural in-place soil barrier on the entire bottom and sides of the landfill. Except as provided below, this barrier shall be at least three (3) meters (ten (10) feet) in thickness and consist of natural

in-place soil which has a permeability of less
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than or equal to 1×10 cm/sec. and meets the
requirements of Paragraph 17 below.

COMMENT: A natural in-place soil barrier using natural in-place soils of different thicknesses and permeabilities may be used, provided the barrier has a thickness greater than or equal to 1.5 meters (five (5) feet) and provided that the owner or operator can demonstrate to the Board at the time a permit is issued that it will provide equivalent containment of leachate.

15. An owner or operator of a landfill using the design in Paragraph 14, or any similar design which does not have a leachate collection system, shall demonstrate to the Board at the time a permit is issued that liquids will not accumulate in the landfill to the extent that they may be discharged to the surface or to ground water.
16. In areas where climatic and natural geologic conditions do not allow meeting the requirements of Paragraph 14, a landfill shall have either one of the following liner systems covering the entire bottom and sides of the landfill.
 - a. Design I: The liner system shall have slope of at least one percent (1%) at all points and be connected at all low points to one or more leachate collection sumps,

so that leachate formed in the landfill will flow by gravity into the leachate collection sump(s) from which the leachate can be removed and treated or disposed of as specified herein. The liner system shall consist of:

- (1) A soil liner which is at least 1.5 meters (five (5) feet) in thickness and composed of natural in-place soil or emplaced soil which has a permeability less than or equal to 1×10^{-7} cm/sec and meets the requirements of Paragraph 17; and
- (2) A leachate collection and removal system overlying the soil liner which is at least thirty (30) centimeters (twelve (12) inches) in thickness and composed of permeable soil capable of permitting leachate to move rapidly through the system and into the leachate collection sump(s).

- b. Design II: The liner system shall have a slope of at least one percent (1%) at all points and be connected at all low points to one or more leachate collection sumps so that leachate formed in the landfill

will flow by gravity into the leachate collection sump(s) from which the leachate can be removed and treated or disposed of as specified herein. The landfill liner system shall consist of:

- (1) A leachate detection and removal system, placed on the natural base of the landfill, which shall consist of a minimum of fifteen (15) centimeter (six (6) inches) of permeable soil capable of permitting leachate to move rapidly through the system and into the leachate collection sumps;
- (2) A membrane liner system overlying the leachate detection and removal system composed of a fifteen (15) centimeter (six (6) inch) layer of clean permeable sand or soil overlaid with a synthetic membrane liner and which is overlaid with a fifteen (15) centimeter (six (6) inch) layer of clean permeable sand or soil;
- (3) A soil liner overlying the membrane liner system which is at least one (1) meter (three (3) feet) in thickness and composed of soil which has a permeability less than or equal

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to 1×10 cm/sec and meets the requirements of Paragraph 17; and

(4) A leachate collection and removal system overlying the soil liner which is at least thirty (30) centimeters (twelve (12) inches) in thickness and composed of permeable soil capable of permitting leachate to move rapidly through the system and into the leachate collection sumps.

c. A landfill may use a different liner system than the two (2) described above provided the owner or operator can demonstrate to the Board at the time a permit is issued that the alternate liner system includes a liner and a leachate collection and removal system that provides equivalent or greater leachate containment, collection, and removal.

17. The soils to be used in a soil liner or natural in-place soil barrier shall be carefully analyzed and a report on them will be submitted to the Board along with the application to construct the facility. The report shall be certified by a professional engineer licensed to practice in Puerto Rico and it shall cover

- g. Be placed on a stable base; and
 - h. Have a permeability less than or equal to 1×10^{-12} cm/sec or its equivalent.
19. A landfill shall have a ground-water monitoring system as described in Rule 804.
20. A leachate collection sump as required in the liner systems specified in Paragraph 16 shall be designed and constructed:
- a. Of materials both compatible with and impermeable to the leachate formed in the landfill;
 - b. So that the sump is accessible for removal of leachate if the sump pump becomes inoperative or the stand pipe (for removal of leachate) becomes damaged; and
 - c. With a volume equal to or greater than three-months expected volume of leachate, but no less than 1,000 gallons.
21. The owner or operator shall remove leachate from a leachate collection sump as frequently as necessary to maintain gravity flow in the leachate collection and removal system and shall check the leachate collection sump at least monthly to assure compliance with this requirement.
22. The owner or operator of a landfill containing

the following parameters:

- a. Unified Soil Classification System;
- b. Percent passage through a No. 200 sieve;
- c. Liquid limit;
- d. Plasticity;
- e. pH;
- f. Permeability; and
- g. Sensitivity of permeability to anticipated waste.

18. A synthetic membrane liner shall meet the following minimum criteria:

- a. Be of adequate strength and thickness to insure mechanical integrity and have a minimum thickness of twenty (20) mils;
- b. Be compatible with the waste to be landfilled;
- c. Be resistant to attack from soil bacteria and fungus;
- d. Have ample weather resistance to withstand the stress of extreme heat;
- e. Have adequate tensile strength to elongate sufficiently and withstand the stress of installation and/or use of machinery and equipment;
- f. Be of uniform thickness, free from thin spots, cracks, tears, blisters, and foreign particles;

hazardous solid waste which is subject to dispersal by wind must cover or otherwise manage the landfill so that wind dispersal of the hazardous solid waste is controlled.

C. Closure and Post-Closure.

1. At closure, the owner or operator must follow the facility's closure and post-closure plans, which must include the items required under Rule 805 and under this section.
2. In the closure and post-closure plans, the owner or operator of a hazardous solid waste landfill must address the following objectives and indicate how they will be achieved:
 - a. Control of pollutant migration from the facility via ground water, surface water, or air;
 - b. Control of surface water infiltration, including prevention of pooling; and
 - c. Prevention of erosion.
3. The owner or operator must consider at least the following factors in addressing these closure and post-closure care objectives:
 - a. Type and amount of hazardous solid waste and hazardous solid waste constituents in the landfill;
 - b. The mobility and the expected rate of

- migration of the hazardous solid waste and hazardous solid waste constituents;
- c. Site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration (e.g., proximity to ground water, surface water, and drinking water sources);
 - d. Climate, including amount, frequency, and pH of precipitation;
 - e. Characteristics of the cover material including final surface contours, thickness, porosity or permeability, slope, length of run of slope, and type of vegetation on the cover; and
 - f. Geological and soil profiles and surface and subsurface hydrology of the site.
4. In addition to the requirements of Section 805(B), during the post-closure care period, the owner or operator of a hazardous solid waste landfill must:
- a. Maintain and monitor the leachate collection, removal, and treatment system (if there is one) to prevent excess accumulation of leachate in the system;
- COMMENT: If the collected leachate is a hazardous solid waste, it must be managed as a hazardous waste in accordance with applicable rules and regulations. If the collected leachate is discharged through a

point source to waters of the Commonwealth of Puerto Rico, it must comply with the requirements under Section 402 of the Clean Water Act, as amended.

- b. Maintain and monitor the gas collection and control system (if there is one) to control the vertical and horizontal escape of gases; and
- c. Protect and maintain surveyed benchmarks.

D. Special Requirements for Ignitable or Reactive Waste.

Ignitable or reactive waste must not be placed in a landfill, unless the waste is treated, rendered, or mixed before or immediately after placement in the landfill so that:

- 1. The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Part VI of this regulation, and
- 2. Compliance with the requirements of Section 809(B) is attained.

E. Special Requirements for Incompatible Waste.

Incompatible waste, or incompatible waste and material, must not be placed in the same landfill cell, unless compliance with the requirements of Section 809(B) is attained.

F. Special Requirements for Liquid Waste.

1. Bulk or non-containerized liquid waste or waste containing free liquids must not be placed in a landfill.
2. A container holding liquid waste or holding waste that has free liquids may be placed in a landfill, but only if:
 - a. The landfill has a liner which is chemically and physically resistant to the contained liquid and has a functioning leachate collection and removal system with a capacity sufficient to remove all leachate produced, and either:
 - (1) Before disposal, the containerized liquid waste or waste that has free liquids is treated or stabilized, chemically or physically (e.g., by mixing with an absorbent solid) so that free liquids are no longer present; or
 - (2) During disposal, the container is completely imbedded in an absorbent solid in a manner sufficient to absorb and hold all of the liquid in the container.
3. The date for compliance with this section is twelve (12) months after the effective date of

this regulation.

G. Special Requirements for Disposal of Containers.

1. An empty container must be crushed flat, shredded, or similarly reduced in volume before it is buried beneath the surface of a landfill.
2. The date for compliance with this section is twelve (12) months after the effective date of this regulation.

H. (Reserved)

RULE 817 - SURFACE IMPOUNDMENTS

A. Applicability.

This rule applies to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous solid waste, except as provided in Rule 801.

B. General Requirements.

Hazardous solid waste surface impoundments must be located, designed, constructed, and operated in accordance with the following minimum requirements:

1. Direct contact between the surface impoundment and the ground and surface waters of the

Commonwealth of Puerto Rico shall be prevented.

2. A surface impoundment shall be located, designed, and constructed so that the bottom of its liner system or natural in-place soil barrier is at least 1.5 meters (five (5) feet) above the historical high water table.
3. A surface impoundment shall be located at least 150 meters (500 feet) from any functioning public or private water supply or livestock water supply.
4. A surface impoundment shall be located, designed, constructed, and operated to minimize landslides, slumping, and erosion.
5. A surface impoundment shall not be used to contain hazardous solid waste which is:
 - a. Detrimental to any material being used as a barrier to the waste movement from the surface impoundment, or
 - b. Ignitable or reactive waste, except as provided in Section G of this rule.
6. Hazardous solid waste which is incompatible shall not be placed together in a surface impoundment, except as provided in Section H of this rule.
7. All hazardous solid waste shall be tested, prior to placement in a surface impoundment, for compatibility with the intended liner

materials to determine whether it will have any detrimental effect (e.g., cause cracks, dissolution, decreased mechanical strength, or increased permeability) on the soils or lining materials used to prevent leakage from the surface impoundment.

8. When natural geologic conditions allow, a surface impoundment shall have a natural in-place soil barrier on the entire bottom and sides of the impoundment. This barrier's thickness shall be subject to the approval of the Board, and it shall be composed of natural in-place soil which meets the specifications of Paragraph 10, below.
9. Where geologic conditions do not allow use of the design in Paragraph 8, above, a surface impoundment shall have a liner system covering the entire bottom and sides of the impoundment. This liner system shall consist of a top liner, a bottom liner, and a leachate detection system which meet the following specifications:
 - a. The top liner shall consist of emplaced soil at least thirty (30) centimeters (twelve (12) inches) in thickness which meets the criteria in Paragraph 10, below, or an artificial liner which meets the criteria in Paragraph 11, below;

b. The bottom liner shall consist of natural in-place soil or emplaced soil which meets the criteria in Paragraph 10, below, and is at least 1.5 meters (five (5) feet) in thickness, or an artificial liner which meets the criteria in Paragraph 11, below; and

c. The leachate detection system shall be a gravity flow drainage system installed between the top and bottom liners and shall be capable of detecting any leachate that passes through the top liner.

Provisions shall be made for pumping out any leachate that passes through the top liner and for removal of noxious gases that occur in the system.

A surface impoundment may use a different liner system than the one described above if the owner or operator can demonstrate to the Board at the time a permit is issued that the alternate liner system will provide equivalent protection of ground and surface water.

10. Soils used for surface impoundment liners or natural in-place soil barriers shall be subject to approval by the Board.

11. Artificial liners for surface impoundments (e.g., concrete or plastic) shall:

- a. Be of sufficient strength to insure mechanical integrity;
- b. Have a minimum thickness of thirty (30) mils;
- c. Be compatible with the waste to be placed in the impoundment;
- d. Have a permeability less than or equal to 1×10^{-7} cm/sec;
- e. Have an expected service life of at least twenty-five percent (25%) longer than the expected time of facility usage;
- f. Be placed on a stable base;
- g. Satisfactorily resist attack from ozone, ultraviolet rays, soil bacteria, and fungus;
- h. Have adequate tensile strength to elongate sufficiently and withstand the stress of installation or the use of machinery or equipment;
- i. Resist laceration, abrasion, and puncture from any matter that may be contained in the fluids it will hold;
- j. Be of uniform thickness, free of thin spots, cracks, tears, blisters, and foreign particles; and
- k. Be easily repaired.

12. To prevent their rupture, all artificial liners in a surface impoundment where mechanical equipment is used (e.g., for sludge dredging and collecting) shall have a protective cover of selected clean earth material, not less than forty-five (45) centimeters (eighteen (18) inches) thick, placed directly on top of the liner.
13. All surface impoundment dikes shall be designed and constructed in a manner that will prevent discharge or release of waste from the facility, both horizontally and vertically.
14. All earthen dikes at the facility shall be constructed of clay-rich soil with a permeability less than or equal to 1×10^{-7} cm/sec.
15. All earthen dikes shall have an outside protective cover (e.g., grass, shale, or rock) to minimize erosion by wind and water.
16. Those surface impoundments which are intended to be closed without removing the hazardous solid waste shall meet the landfill requirements under Rule 816.
17. The freeboard maintained in a surface impoundment shall be capable of containing rainfall from a twenty-four (24) hour,

twenty-five (25) year storm but shall be no less than sixty (60) centimeters (two (2) feet).

18. Records shall be kept of the contents and location of each surface impoundment.
19. The integrity of the natural in-place soil barrier or the liner system installed in a surface impoundment shall be maintained until closure of the impoundment. The liner system or natural in-place soil barrier shall be repaired immediately upon detection of any failure (e.g., liner puncture).
20. Surface impoundment dikes shall be visually inspected weekly, for the purpose of detecting and correcting any deterioration. Any maintenance or corrective action necessary to restore the dike to its original condition shall be accomplished expeditiously.
21. Any system provided for detecting the failure of a liner system or natural in-place soil barrier shall be visually inspected weekly to insure that it is operating properly for the purpose intended.

C. Waste Analysis and Trial Tests.

In addition to the waste analysis required in Section 807(I), whenever a surface impoundment is to

be used to:

1. Chemically treat a hazardous solid waste which is substantially different from the waste previously used in that impoundment; or
2. Chemically treat a hazardous solid waste with a substantially different process than any previously used in that impoundment, the owner or operator, before treating the different waste or using the different process, must:
 - a. Conduct a waste analysis and trial treatment test (e.g., bench scale or pilot scale test); or
 - b. Obtain written, documented information on similar treatment of similar waste under similar operating conditions to show that this treatment will comply with Section 809(B).

D. Inspections.

The owner or operator must inspect:

1. The freeboard level at least once during each operating day; and
2. The surface impoundment, including dikes and vegetation surrounding the dikes, at least once a week, to detect any leaks, deterioration, or failures in the impoundment.

E. (Reserved)

F. Closure and Post-Closure.

1. At closure, the owner or operator may elect to remove from the impoundment:
 - a. Standing liquids;
 - b. Waste and waste residues;
 - c. The liner, if any; and
 - d. Underlying and surrounding contaminated soil.

2. If the owner or operator removes all the impoundment materials in Paragraph 1, or can demonstrate that none of the materials listed in Paragraph 1 are hazardous solid waste, the impoundment is not further subject to the requirements of this part.

COMMENT: At closure, as throughout the operating period, unless the owner or operator can demonstrate that any solid waste removed from the surface impoundments is not a hazardous solid waste, he becomes a generator of hazardous solid waste and must manage it in accordance with all applicable requirements of this regulation.

3. If the owner or operator does not remove all the materials listed above in Paragraph 1, or does not make the demonstration in Paragraph 2, he must close the impoundment and provide post-closure care as for a landfill under Rule 805 and Rule 816. If necessary to support the

final cover material specified in the approved closure plan, the owner or operator must treat remaining liquids, residues, and soils by removal of liquids, drying, or other means.

G. Special Requirements for Ignitable or Reactive Waste.

Ignitable or reactive waste must not be placed in a surface impoundment, unless:

1. The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:
 - a. The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste, and
 - b. Section 809(B) is complied with; or
2. The surface impoundment is used solely for emergencies.

H. Special Requirements for Incompatible Waste.

Incompatible wastes, or incompatible wastes and materials, must not be placed in the same surface impoundment, unless Rule 809 is complied with.

I. (Reserved)

RULE 818 - WASTE PILES

A. Applicability.

This rule applies to owners and operators of facilities that treat or store hazardous solid waste in piles, except as Rule 801 provides otherwise. As an alternative to compliance with this rule, a pile of hazardous solid waste may be managed as a landfill.

B. Protection from Wind.

The owner or operator of a pile containing hazardous solid waste which could be subject to dispersal by wind must cover or otherwise manage the pile so that wind dispersal is controlled.

C. Waste Analysis.

1. In addition to the waste analysis required by Section 807(I), the owner or operator must analyze a representative sample of the waste from each incoming shipment before adding the waste to an existing pile, unless:
 - a. The only wastes the facility receives which are amenable to piling are compatible with each other, or
 - b. The waste received is compatible with the waste in the pile to which it is to be

added.

The analysis conducted must be capable of differentiating between the types of hazardous solid waste the owner or operator places in piles, so that mixing of incompatible waste does not inadvertently occur. The analysis must include a visual comparison of color and texture. As required by Section 807(I), the waste analysis plan must also include analysis needed to comply with Sections F and G of this rule.

2. The owner or operator must keep the results of this analysis in the operating record of the facility.

D. Containment.

If leachate or run-off from a pile is a hazardous solid waste, then either:

1. The pile must be placed on an impermeable base that is compatible with the waste under the conditions of treatment or storage, run-on must be diverted away from the pile, and any leachate and run-off from the pile must be collected and managed as a hazardous solid waste; or
2. The pile must be protected from precipitation and run-on by some other means; and

3. No liquids or wastes containing free liquids may be placed in the pile.

If collected leachate or run-off is discharged through a point source to waters of the Commonwealth of Puerto Rico, it is subject to the requirement of Section 402 of the Clean Water Act, as amended.

E. (Reserved)

F. Special Requirements for Ignitable or Reactive Waste.

Ignitable or reactive waste must not be placed in a pile, unless:

1. Addition of the waste to an existing pile:
 - a. Results in the waste or mixture no longer meeting the definition of ignitable or reactive waste, and
 - b. Complies with Section 809(B); or
2. The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

G. Special Requirements for Incompatible Waste.

1. Incompatible waste, or incompatible waste and material, must not be placed in the same pile, unless Section 809(B) is complied with.
2. A pile of hazardous solid waste that is

incompatible with any waste or other material stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device.

3. Hazardous solid waste must not be piled on the same area where incompatible wastes or materials were previously piled, unless that area has been decontaminated sufficiently to ensure compliance with Section 809(B).

RULE 819 - LAND TREATMENT FACILITIES

A. Applicability.

This rule applies to owners and operators of hazardous solid waste land treatment facilities, except as provided in Rule 801.

B. General Operating Requirements.

1. Hazardous solid waste must not be 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.
2. Run-on must be diverted away from the active portion of a land treatment facility.

3. Run-off from active portions of a land treatment facility must be collected.
 - a. If the collected run-off is a hazardous solid waste under Part VI of this regulation, it must be managed as a hazardous solid waste in accordance with applicable rules and regulations.
 - b. If the collected run-off is discharged through a point source to waters of the Commonwealth of Puerto Rico, it is subject to the requirement of Section 402 of the Clean Water Act, as amended.
4. Hazardous solid waste land treatment facilities shall be located, designed, constructed, and operated in accordance with the following minimum requirements.
 - a. Direct contact between the treated area and ground water or surface waters of Puerto Rico shall be prevented.
 - b. A landfarm shall be located, designed, constructed, and operated to minimize erosion, landslides, and slumping in the treated area.
 - c. A landfarm shall be located, designed, constructed and operated so that the treated area is at least 1.5 meters (five (5) feet) above the historical high water

table.

- d. The treated area of a landfarm shall be at least 150 meters (500 feet) from any functioning public or private water supply or livestock water supply.
- e. A landfarm shall be located on an area that has fine grained soils.
- f. The following hazardous solid waste shall not be landfarmed:
 - (1) Ignitable waste or reactive waste, except as provided in Section J below, and
 - (2) Waste which is incompatible except as provided in Section K below.
- g. Surface slopes of a landfarm shall be less than five percent (5%) to minimize erosion in the treated area by waste or surface run-off, but greater than zero percent (0%) to prevent the waste or water from ponding or standing for periods that will cause the treated area to become anaerobic.
- h. Caves, wells (other than active monitoring wells), and other direct connections to the subsurface environment within the treated area of a landfarm, or within

thirty (30) meters (100 feet) thereof,
shall be sealed.

- i. Soil pH in the zone of incorporation shall be equal to or greater than 6.5.
- j. Waste application and incorporation practices shall prevent the zone of incorporation from becoming anaerobic.
- k. Waste shall not be applied to the soil when it is saturated with water.
- l. The pH of the soil-waste mixture in the zone of incorporation shall be equal to or greater than 6.5 and shall be so maintained until the time of facility closure.

C. Waste Analysis.

In addition to the waste analysis required by Section 807(I), before placing a hazardous solid waste in or on a land treatment facility, the owner or operator must:

1. Determine the concentration in the waste of any substances which exceed the maximum concentrations in Rule 604 of this regulation that cause the waste to exhibit the EP toxicity characteristics;
2. For any waste listed in Rule 608, determine the concentrations of any substances which caused

the waste to be listed as a hazardous solid waste, and

3. If food chain crops are grown, determine the concentrations in the waste of each of the following constituents: arsenic, cadmium, lead, and mercury, unless the owner or operator has written, documented data that show that these constituents are not present.

D. (Reserved)

E. Food-Chain Crops.

1. An owner or operator of a hazardous solid waste land treatment facility on which food-chain crops are being grown, or have been grown and will be grown in the future, must notify the Board within sixty (60) days after the effective date of this regulation.
2. Food-chain crops must not be grown on the treated area of a hazardous solid 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 Section 819(C):
 - a. Will not be transferred to the food portion of the crop by plant uptake or direct contact, and will not otherwise be

- ingested by food-chain animals (e.g., by grazing); or
- b. Will not occur in greater concentrations in the crop grown on the land treatment facility than in the same crops grown on untreated soils under similar conditions in the same region.
3. The information necessary to make the demonstration required by Paragraph 2 of this section must be kept at the facility and must, at a minimum:
- a. Be based on tests for the specific waste and application rates being used at the facility; and
 - b. Include descriptions of crop and soil characteristics, sample selection criteria, sample size determination, analytical methods, and statistical procedures.
4. Food-chain crops must not be grown on a land treatment facility receiving waste that contains cadmium unless all requirements established by EPA regulations are met.

F. (Reserved)

G. Unsaturated Zone (Zone of Aeration) Monitoring.

1. The owner or operator must have, in writing, and must implement, an unsaturated zone monitoring plan which is designed to:
 - a. Detect the vertical migration of hazardous constituents under the active portion of the land treatment facility, and
 - b. Provide information on the background concentrations of the hazardous solid waste and hazardous solid waste constituents in similar but untreated soils nearby. This background monitoring must be conducted before or in conjunction with the monitoring required under Subparagraph (1) (a) of this section.
2. The unsaturated zone monitoring plan must include, at a minimum:
 - a. Soil monitoring using soil cores, and
 - b. Soil-pore water monitoring using devices such as lysimeters.
3. To comply with Subparagraph (1) (a) of this section, the owner or operator must demonstrate in his unsaturated zone monitoring plan that:
 - a. The depth at which soil and soil-pore water samples are to be taken is below the depth to which the waste is incorporated

- into the soil;
- b. The number of soil and soil-pore water samples to be taken is based on the variability of:
 - (1) The hazardous solid waste constituents in the waste and in the soil; and
 - (2) The soil type(s); and
 - c. The frequency and timing of soil and soil-pore water sampling is based on the frequency, time, and rate of waste application, the proximity to ground water, and the soil permeability.
4. The owner or operator must analyze the soil and soil-pore water samples for the hazardous solid waste constituents that were found in the waste during the waste analysis.

The unsaturated zone monitoring plan, the rationale used in developing this plan, and all data and information developed by the owner or operator under this section must be kept in the operating records of the facility.

H. Recordkeeping.

The owner or operator of a land treatment facility must keep records of the application dates, application rates, quantities, and location of each

hazardous solid waste placed in the facility, in the operating records or daily log.

I. Closure and Post-Closure.

1. In the closure plan and the post-closure plan, the owner or operator must address the following objectives and indicate how they will be achieved:

- a. Control of the migration of hazardous solid waste and hazardous solid waste constituents from the treated area into the ground water;
- b. Control of the release of contaminated run-off from the facility into surface water;
- c. Control of the release of airborne particulate contaminants caused by wind erosion; and
- d. Compliance with Section 819(E) concerning the growth of food-chain crops.

2. The owner or operator must consider at least the following factors in addressing the closure and post-closure care objectives of

Paragraph 1:

- a. Type and amount of hazardous solid waste and hazardous solid waste constituents applied to the land treatment facility;

- b. The mobility and the expected rate of migration of the hazardous solid waste and hazardous solid waste constituents;
 - c. Site location, topography, and surrounding land use, with respect to the potential effect of pollutant migration (e.g. proximity to ground water, surface water and drinking water sources);
 - d. Climate, including amount, frequency, and pH of precipitation;
 - e. Geological and soil profiles, surface and subsurface hydrology of the site, and soil characteristics, including cation exchange capacity, total organic carbon, and pH;
 - f. Unsaturated zone monitoring information obtained under Section 819(G); and
 - g. Type, concentration, and depth of migration of hazardous solid waste constituents in the soil as compared to their background concentrations.
3. The owner or operator must consider at least the following methods in addressing the closure and post-closure care objectives of Paragraph 1 above:
- a. Removal of contaminated soils;
 - b. Placement of a final cover, considering:
 - (1) Functions of the cover (e.g.,

infiltration control, erosion and run-off control, and wind erosions control), and

- (2) Characteristics of the cover, including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover;
 - c. Collection and treatment of run-off;
 - d. Diversion structures to prevent surface water of run-on from entering the treated area; and
 - e. Monitoring of soil, soil-pore water, and ground water.
4. In addition, during the post-closure care period, the owner or operator of a land treatment facility must:
- a. Maintain the unsaturated zone monitoring system and collect and analyze samples from this system in a manner and frequency specified in the post-closure plan;
 - b. Restrict access to the facility as appropriate for its post-closure use; and
 - c. Assure that growth of food chain crops complies with Section 819(E).

J. Special Requirements for Ignitable or Reactive Waste.

Ignitable or reactive waste must not be land treated, unless the waste is immediately incorporated into the soil so that:

1. The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste, and
2. Section 809(B) is complied with.

K. Special Requirements for Incompatible Waste.

Incompatible waste, or incompatible waste and material, must not be placed in the same land treatment area, unless Section 809(B) is complied with.

RULE 820 - CHEMICAL, PHYSICAL, AND BIOLOGICAL HAZARDOUS WASTE TREATMENT FACILITIES

A. Applicability.

This rule applies to owners or operators of facilities which treat hazardous solid waste by chemical, physical, or biological methods in other than tanks, surface impoundments, and land treatment facilities, except as provided in Rule 801.

Chemical, physical, and biological treatment of hazardous solid waste in tanks, surface

impoundments, and land treatment facilities must be conducted in accordance with other rules in this part.

B. General Requirements.

All new or existing facilities which treat hazardous solid waste by chemical, physical or biological methods, shall be located, designed, constructed, and operated in accordance with the requirements set forth in Rules 801 through 811 of this regulation and with the following minimum requirements:

1. The materials used in the construction of the treatment facility shall be compatible with the hazardous solid waste and any chemicals or reagents used in the treatment process.
2. The hazardous solid waste shall be analyzed, as required by the Board, prior to the selection of a treatment technique to determine the following:
 - a. The proper processes and procedures to treat the hazardous solid waste;
 - b. Any detrimental effects to the facility or the environment;
 - c. Any interference or decrease of the effectiveness of the process that might result from components of the waste or contaminants in it;

- d. Any component of the waste or contaminant in it which may form highly toxic substances with the treatment chemicals or reagents; and
- e. Any component or contaminant in the waste which might cause the uncontrollable release of toxic gases or fumes during the intended treatment.

This analysis of hazardous solid waste can be omitted if the owner or operator can demonstrate to the satisfaction of the Board that he has documented information on the subject hazardous solid waste that reveals that it is similar to hazardous solid waste previously treated at a similar facility under similar treatment conditions.

- 3. Trial test shall be performed for each hazardous solid waste which is new or significantly different from hazardous solid waste previously treated at the facility to determine the appropriate treatment technique and operating conditions and to evaluate the effectiveness of the treatment process and the consequences of the proposed treatment.
- 4. The facility shall have adequate provisions for the storage of chemical agents and reagents and such safety equipment as is needed to

prevent spills, fires, explosive or uncontrollable discharges, or releases.

5. The facility shall have reserve capacity for the treatment or storage of the hazardous solid waste under treatment in case of emergency or facility malfunction or disruption.
6. The facility shall have safety equipment or devices such as automatic waste feed cut-off or by-pass systems to be activated in cases of emergency or facility malfunction or disruption.
7. Hazardous solid waste or treatment reagents must 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.

C. Closure.

During closure all hazardous solid waste, by-products, and residue shall be removed from the facility and treated or disposed of as hazardous solid waste pursuant to the requirements of this regulation.

D. Inspection.

The owner or operator of a treatment facility must inspect:

1. On a daily basis, the discharge control and safety equipment.
2. On a daily basis, the data gathered from monitoring equipment to ensure that the treatment process or equipment is being operated according to its design.
3. The construction materials of the treatment process or equipment, at least weekly, to detect corrosion or leaking of fixture or seams; and
4. On a weekly basis, the construction materials of, and the area immediately surrounding, discharge confinement structures, to detect erosion or obvious signs of leakage.

E. Special Requirements for Ignitable or Reactive Waste.

Ignitable or reactive waste must not be placed in a treatment process or equipment unless:

1. The waste is treated, rendered, or mixed before or immediately after placement in the treatment process or equipment so that:
 - a. the resulting waste, mixture, or dissolution of material no longer meets

the definition of ignitable or reactive waste, and

- b. Rule 809 is complied with; or
- 2. The waste is treated in such a way that it is protected from any material or condition which may cause the waste to ignite or react.

F. Special Requirements for Incompatible Waste.

- 1. Incompatible waste, or incompatible waste and material, must not be placed in the same treatment process or equipment, unless Section 809(B) is complied with.
- 2. Hazardous solid waste must not be placed in unwashed treatment equipment which previously held an incompatible waste or material, unless Section 809(B) is complied with.

RULE 821 - (Reserved)

RULE 822 - UNDERGROUND INJECTION

Underground injection of hazardous solid waste by means as injection wells or other devices within the Commonwealth of Puerto Rico is not permitted.

PART IX

PERMITS TO CONSTRUCT AND OPERATE
SOLID WASTE FACILITIES, SERVICES, AND ACTIVITIES
COMPLIANCE PLANS
DISPENSATIONS

PART IX - PERMITS TO CONSTRUCT AND OPERATE SOLID WASTE FACILITIES, SERVICES, AND ACTIVITIES; COMPLIANCE PLANS; DISPENSATIONS

RULE 901 - PURPOSE, SCOPE, AND APPLICABILITY

This part establishes the requirement for owners and operators of certain solid waste facilities and services to obtain permits as a precondition of their right to engage in that solid waste activity. It also establish the administrative procedures by which such permits will be granted.

RULE 902 - PERMITS TO CONSTRUCT NEW OR MODIFIED SOLID WASTE FACILITIES

A. Permit Requirement.

No person shall construct or cause the construction of a new or modified solid waste facility without first obtaining a construction permit from the Board.

B. Applications for Permits.

1. Each application for a permit to construct a new or modified solid waste facility shall be submitted on forms provided by the Board and shall be completed and signed by the owner; or, in the case of a corporation, by the corporate President or Vice-President reporting directly to the President, by the highest ranking

corporate officer with offices in Puerto Rico, by a duly authorized representative upon presentation of delegation documents; or, in the case of municipalities or organizations other than corporations, by an equivalently responsible officer.

2. The signature shall constitute an agreement that the applicant will assume responsibility for the construction and operation of the facility in accordance with all applicable rules and regulations.
3. Any person signing an application for a permit to construct a new or modified solid waste facility shall make the following certification:

"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."

C. Information Requirements.

1. Each application shall include the following information:
 - a. A description of the activities to be conducted by the applicant.
 - b. Name, mailing address, and location

(including latitude and longitude) of the facility for which the application is submitted.

- c. Up to four SIC codes which best reflect the principal products or services provided by the facility.
- d. The operator's name, address, telephone number, ownership status, and status as a private, public, or other entity.
- e. A description of the status of the facility including whether the facility is new or existing and being modified and whether the application is a new one or one being revised.
- f. Evidence of all applicable permits or construction approvals received or applied for under any of the following programs:
 - (1) NPDES program under the Federal Clean Water Act, as amended.
 - (2) Prevention of Significant Deterioration (PDS) program under the federal Clean Air Act, as amended.
 - (3) Non-Attainment program under the federal Clean Air Act, as amended.
 - (4) National Emission Standard for Hazardous Pollutants (NESHAPS)

pre-construction approval under the federal Clean Air Act, as amended.

- (5) Ocean Dumping program under the Marine Protection, Research, and Sanctuary Act.
 - (6) Dredge and fill program under Section 404 of the federal Clean Water Act, as amended.
 - (7) Any other program, including state and local permits necessary for construction.
- g. A description of the processes to be used for treating, storing, or disposing of solid waste and the design capacity of these processes.
2. Each application shall include a map or aerial photograph showing the land use and zoning within one mile of the facility. Such map or aerial photograph shall be of sufficient scale and detail to show all dwellings, buildings, wells, watercourses, dry runs, rock out-croppings, and roads and shall clearly indicate the topography of the area.
 3. Each application shall include detailed plans and specifications of the facility. All plans and specifications shall be certified by an engineer licensed to practice in Puerto Rico.

They shall be submitted in triplicate and shall include a plot plan drawn at a scale of not more than two hundred (200) feet per inch (1"=200'), showing dimensions, elevations, and proposed layout of the facility. The plot plan shall also include specific geological information concerning ground water elevation and movement. Such data shall be obtained by exploratory borings or other appropriate means.

4. Each application shall include a copy of the operating plan required by Rules 206 and 402 and by Section 803(E).
5. Each application shall include a copy of the resolution from the Planning Board of the Commonwealth of Puerto Rico approving its location.
6. Each application for a permit to construct a new or modified incinerator or thermal treatment facility for solid waste shall include the following additional information:
 - a. An engineering report including furnace design criteria and expected performance standards.
 - b. Information to establish likelihood of compliance with the standards in Part VIII.
 - c. Information regarding the re-use or final

- disposal of the residues generated by the incinerator or thermal treatment facility.
- d. Any additional data the Board may require.
7. Each application for a permit to construct a new or modified chemical, physical, or biological treatment facility for solid waste shall include the following additional information:
- a. An engineering report including treatment design criteria and expected performance data.
- b. Information regarding compliance with the standards set out in Part VIII.
- c. Any additional data the Board may require.
8. Each applicant shall keep records of all data used to complete a permit application and any supplemental information submitted for a period of at least three (3) years from the date the application is signed.
9. If any of the information required by this rule has been provided to EPA in Part A or B of an EPA permit application, that information can be given to the Board by providing it with a copy of the EPA permit application.

D. Additional Information Required for Hazardous Solid Waste Facilities.

If the new or modified solid waste facility will handle hazardous solid waste, the following additional information must be submitted:

1. A general description of the hazardous solid waste that will be handled at the facility including an estimate of quantities of waste and a description of the processes that will be utilized to handle these wastes and their design capacities.
2. Chemical and physical analysis of the hazardous solid waste to be handled at the facility. At a minimum the analysis shall contain all the information which must be known to treat, store, or dispose of wastes in accordance with the requirements of the regulation.
3. A copy of the waste analysis procedures and ground-water monitoring plan required by Part VIII.
4. A description of the security and safety procedures and equipment required by Part VIII of this regulation.
5. A copy of the general inspection procedures and closure plan required by Part VIII.

6. A description of the procedures planned to satisfy the preparedness and prevention requirements of Part VIII.
7. A copy of the emergency procedures required by Part VIII.
8. A description of procedures, structures, or equipment used at the facility to:
 - a. Prevent uncontrolled reactions of incompatible wastes;
 - b. Prevent hazards in unloading operations;
 - c. Prevent run-off from hazardous solid waste handling areas and to prevent flooding;
 - d. Prevent contamination of ground water;
 - e. Mitigate effects of equipment failure and power outages;
 - f. Prevent undue exposure of personnel to hazardous solid waste; and
 - g. Prevent traffic problems or road hazards.

If any of the information required by this rule has been provided to EPA in Part A or Part B of an EPA permit application, that information can be given to the Board by providing it with a copy of the EPA permit application.

E. Standards for Granting.

No permit to construct a new or modified solid waste facility shall be granted unless the applicant shows

to the satisfaction of the Board that:

1. The solid waste facility will be capable of operating in compliance with all applicable rules and regulations;
2. The applicant holds a valid resolution from the Planning Board of the Commonwealth of Puerto Rico approving its location;
3. The proposed solid waste facility has complied with Section 4(c) of the Public Policy Environmental Act, as amended, and of those rules and regulations issued by the Board to implement that section;
4. The applicant holds a certification from the Puerto Rico Health Department that the new or modified construction does not pose a public health or safety hazard.

F. Conditions in Permits.

The Board will impose the following conditions and terms on permits granted under this regulation, which terms and conditions will be agreed to by the permittee's acceptance of the permit, and which terms and conditions will only be excused by the issuance of an emergency permit:

1. The permittee will comply with all the conditions of the permit and any permit non-compliance will constitute a violation of

this regulation and will be grounds for enforcement action.

2. The permit may be modified, revoked, or reissued by the Board for cause or upon application of the permittee, but no request for a permit change will stay the permit requirements.
3. The permittee shall furnish to the Board within a reasonable time any information which the Board may request to determine whether cause exists for modifying, revoking, or reissuing the permit or to determine compliance with the permit.
4. The permittee shall allow the Board or an authorized representative to enter the facility to inspect its construction and to verify compliance with this regulation and with the construction permit.
5. The permittee shall give notice to the Board as soon as possible of any planned physical changes, alterations, or additions to the permitted construction.
6. The permit does not convey any property rights or any exclusive privilege.
7. The permittee will not commence operation until it has received a permit under Rule 903 and until a certification of completion has been

submitted to the Board by an engineer licensed in Puerto Rico stating that the facility was built in compliance with the construction permit.

8. If the permittee becomes aware that it has submitted any incorrect information, it will properly advise the Board and will provide complete and correct information.

G. Additional Permit Conditions.

In addition to the conditions established in Section F of this rule, the Board will impose any additional conditions necessary to assure compliance with the applicable requirements of this regulation.

H. Revision to Permit.

Any revision to the conditions upon which a permit to construct has been granted must be approved by the Board prior to submission of an application for a permit to operate.

I. Lapse of Permit.

1. Each permit to construct shall automatically lapse one (1) year after the date of its issuance, unless construction has commenced.
2. Each permit to construct may be renewed at the discretion of the Board in accordance with

terms and conditions established by it.

J. Permit by Rule.

The following new or modified solid waste facilities shall be deemed to have a permit if the conditions listed below are met:

1. The owner or operator of a barge or other vessel which accepts hazardous solid waste for ocean disposal, if the owner or operator:
 - a. Has an ocean dumping permit issued under 40 CFR Part 220 (Ocean Dumping authorized by the Marine Protection, Research, and Sanctuaries Act, as amended);
 - b. Complies with the conditions of that permit; and
 - c. Complies with the requirements of this regulation for obtaining an identification number, using the manifest system, reporting manifest discrepancies, maintaining operating records, submitting an annual report, and submitting unmanifested waste reports.
2. The owner or operator of a POTW which accepts hazardous solid waste through its sewage collection system, if the owner or operator:
 - a. Has an NPDES permit;
 - b. Complies with the conditions of that

permit;

- c. Only accepts waste that meets all the state and federal pretreatment requirements; and
- d. Complies with the requirements of this regulation for obtaining an identification number, using the manifest system, reporting manifest discrepancies, maintaining operating records, submitting an annual report, and submitting unmanifested waste reports.

K. Specific Exclusions.

The following facilities are not required to obtain a construction permit:

- 1. Facilities used by generators to accumulate hazardous solid waste on-site for less than ninety (90) days, as provided in Part VII.
- 2. Facilities used by farmers to dispose of hazardous solid waste pesticide residues resulting from their own use, as provided in Part VII.
- 3. Totally-enclosed treatment facilities.
- 4. Wastewater treatment facilities and elementary neutralization units.

RULE 903 - PERMIT TO OPERATE SOLID WASTE FACILITIES

A. Permit Required.

1. Eighteen (18) months after the effective date of this regulation (i.e., May 13, 1982), no person shall operate or cause the operation of an existing solid waste facility without having applied to the Board for a permit to operate it.
2. No person shall operate or cause the operation of a new or modified solid waste facility without having obtained a permit to operate it from the Board.
3. No person shall operate or cause the operation of a solid waste facility if the Board denies, suspends, or revokes a permit to construct or a permit to operate.

B. Applications.

Applications for a permit to operate a solid waste facility shall be made in the same manner as an application for a construction permit pursuant to Section 902.

If the permit is for a new or modified solid waste facility, it will be submitted to the Board at least sixty (60) days prior to start up.

C. Information Requirements.

Applications for a permit to operate a solid waste facility shall include all of the information required by Section 902(C) for a permit to construct a solid waste facility and shall also include the following additional information:

1. Applications for a permit to operate a new or modified solid waste facility shall include a copy of the valid permit to construct.
2. Applications for a permit to operate an existing solid waste facility shall include a proposed compliance plan as described in Rule 908.

If any of the information required by this rule has been provided to EPA in Part A or Part B of an EPA permit application, that information can be given to the Board by submitting a copy of the application.

D. Additional Information Requirements for Hazardous Solid Waste Facilities.

Applications for a permit to operate a hazardous solid waste facility shall include all of the additional information required by Section 902(D) for a permit to construct a hazardous solid waste facility. If any such additional information has

been provided to EPA on an EPA permit application, it may be provided to the Board by submitting a copy of the application.

E. Standards for Granting Permits to Operate.

No permit to operate shall be granted unless the applicant shows to the satisfaction of the Board that:

1. The facility is and can remain in compliance with all requirements of this regulation or with an approved compliance plan.
2. If the facility is a new or modified solid waste facility, that is also in compliance with the terms of a valid permit to construct, and that a certificate of completion has been or will be submitted as required by Paragraph 902(F) (7).

F. Conditions on Permits to Operate.

All of the terms and conditions imposed by the Board on permits to construct new or modified solid waste facilities pursuant to Section 902(F) will be imposed by it on permits to operate solid waste facilities, with construction requirements construed as operating requirements. In addition, the Board will also impose the following conditions on permits to operate solid waste facilities.

1. The permittee shall maintain a monitoring program in accordance with the requirements of this regulation, obtaining representative samples, maintaining complete records of all monitoring, retaining (except as provided below) all records of monitoring for a period of three(3) years, and submitting monitoring reports as required by this regulation. Records of ground-water monitoring will be maintained for the life of the facility or, for hazardous waste disposal facilities, for the post-closure period of care.
2. The need to halt or reduce permitted activity is not a defense to any action to enforce compliance with permit conditions or with this regulation.
3. The permittee will take reasonable steps to mitigate any adverse health or environmental impacts resulting from non-compliance.
4. The permittee will at all times properly operate and maintain the facility and all systems of treatment and control.
5. The permittee will apply for a new permit if it wishes to continue the activity regulated by this permit after it expires.
6. The permittee will sign and certify all reports or information submitted to the Board.

7. The permit will not be transferred without notice to the Board and without the Board having an opportunity to revoke or change the permit.
8. The permittee will report success in meeting increments of progress contained in any compliance plan.
9. The permittee will accurately and promptly prepare and submit all reports required by this regulation or by the permit, including reports of manifest discrepancies and of unmanifested waste and including annual reports of facility operations, when required.
10. The permittee will orally report any instance of non-compliance which may endanger human health or the environment within twenty-four (24) hours of becoming aware thereof and will submit a detailed written report within five (5) days. The oral and written report will describe the nature of the non-compliance, its cause, its duration, or estimated duration if it continues, and all measures being taken to mitigate any injury to human health or the environment and to prevent reoccurrence of similar violations.

G. Additional Permit Conditions.

In addition to conditions established pursuant Section F, the Board will impose any additional conditions necessary to assure compliance with the applicable requirements of this regulation, including conditions regarding permit duration and specific standards required by this regulation.

H. Performance Testing.

The Board may require the applicant, at its expense, to conduct performance tests in accordance with methods approved by the Board. The Board may monitor such tests. It may also conduct performance tests of its own.

I. Period of Validity.

Any permit to operate a facility shall be valid for a period of not less than five (5) years, and not more than ten (10) years.

J. Renewal of Permit to Operate.

1. At least sixty (60) days before the expiration date of a permit to operate, the owner or operator shall file an application for renewal of the permit to operate such facility.
2. Applications for renewal of a permit to operate shall be accompanied by certifications that:

- a. The operating conditions described in the renewal application accurately reflect those of the existing facility for which the permit renewal is requested, and
- b. The permit fee required by Part X has been paid.

K. Permit by Rule.

The facilities described in Section 902(J) are deemed to have a permit to operate if the conditions stated therein are satisfied.

L. Specific Exclusion.

The facilities identified in Section 902(K) are not required to obtain an operating permit.

RULE 904 - PERMIT TO OPERATE HAZARDOUS SOLID WASTE
TRANSPORTATION SERVICES

A. Applicability.

This rule applies to owners and operators of a hazardous solid waste transportation service. It does not apply to non-hazardous solid waste collection services regulated under Rule 905 of this part.

B. Permits Required.

1. No person shall operate an existing service for the transportation of hazardous solid waste within the Commonwealth of Puerto Rico without applying for a permit to do so within six (6) months of the effective date of this regulation.
2. No person shall operate a new hazardous solid waste transportation service without having first obtained a permit to do so.
3. No person shall operate a service for the transportation of hazardous solid waste within the Commonwealth of Puerto Rico if the Board denies, suspends, or revokes a hazardous solid waste transportation permit.
4. Generators who transport their own hazardous solid waste to on-site facilities are exempt from this rule. Generators who transport their own hazardous solid waste to off-site facilities are operating a hazardous solid waste transportation service.

C. Applications.

1. Applications for a permit to operate a hazardous solid waste transport service shall be completed by the owner or operator thereof on forms furnished by the Board.

2. Each application for a permit to operate a hazardous solid waste transportation service shall be signed by the owner or operator thereof. This signature shall constitute an agreement that the applicant will assume responsibility for the operations of the service in accordance with all applicable rules and regulations.
3. Each application shall include a detailed operating plan (including emergency procedures) indicating facilities, vehicles, equipment, and personnel to be made available and procedures to be followed in order to comply with applicable rules and regulations. Such plan shall indicate:
 - a. Generators to be served by the transporter and points where hazardous solid waste will be picked up;
 - b. Anticipated type and quantity of hazardous waste to be collected; and
 - c. Such additional data and information as may be required by the Board.
4. Each application for a permit to operate an existing hazardous solid waste transportation service shall include a compliance plan as provided for in Rule 908.

D. Standards for Granting Permits to Operate.

No permits to operate shall be granted unless the applicant shows to the satisfaction of the Board that the service can operate in compliance with applicable rules and regulations.

RULE 905 - PERMIT TO OPERATE NON-HAZARDOUS SOLID WASTE
COLLECTION SERVICE

A. Applicability.

This rule applies to the owners and operators of non-hazardous solid waste collection services. It does not apply to hazardous waste transportation services which are regulated under Rule 904 of this part.

B. Permits Required.

1. Six (6) months after the effective date of this regulation, no person shall operate or cause the operation of an existing non-hazardous solid waste collection service without having applied for a permit to do so from the Board.
2. No person shall operate or cause the operation of a new non-hazardous solid waste collection service without first having obtained a permit to do so from the Board.

3. No person shall operate or cause the operation of a non-hazardous solid waste collection service if the Board denies, suspends, or revokes a permit to operate a non-hazardous solid waste collection service.

C. Applications.

1. Applications for a permit to operate a non-hazardous solid waste collection service shall be completed by the owner or operator thereof on forms furnished by the Board.
2. Each application for a permit to operate a non-hazardous solid waste collection service shall be signed by the owner or operator thereof. This signature shall constitute an agreement that the applicant will assume responsibility for the operation of the service in accordance with all applicable rules and regulations.
3. Each application shall include a detailed operating plan (including emergency procedures) indicating facilities, vehicles, equipment, and personnel to be made available and procedures to be followed in order to comply with

applicable rules and regulations. Such plan shall indicate:

- a. Population and area to be served and points where non-hazardous solid waste will be picked up.
 - b. Anticipated type and quantity of non-hazardous solid waste to be collected.
 - c. Frequency of collection.
 - d. Transfer facilities to be operated.
 - e. Such additional data and information as may be required by the Board.
4. Each application for a permit to operate an existing non-hazardous solid waste collection service shall include an initial compliance plan as provided for in Rule 908.

D. Standards for Granting Permit to Operate.

No permit to operate shall be granted unless the applicant shows to the satisfaction of the Board that the service can operate in compliance with all applicable rules and regulations.

RULE 906 - PERMIT TO OPERATE A NON-HAZARDOUS SOLID WASTE
GENERATING ACTIVITY

A. Applicability.

This rule is applicable to all owners and operators of a non-hazardous solid waste generating activity. This rule does not apply to hazardous solid waste generators, except to the extent that they are also non-hazardous solid waste generating activities.

B. Permit Required.

No person shall cause or permit the occurrence of a non-hazardous solid waste generating activity, without first obtaining a permit from the Board. Where substantial quantities of non-hazardous solid waste will be generated at different locations, a separate permit will be required for each location.

C. Applications.

1. Applications for a permit to operate a solid waste generating activity shall be completed by the owner or operator thereof on forms furnished by the Board.

2. Each application for a permit to operate a solid waste generating activity shall be signed by the owner or operator thereof. This signature shall constitute an agreement that the applicant will assume responsibility for the operation of the activity in accordance with applicable rules and regulations.
3. Each application shall include a detailed operating plan (including emergency procedures) indicating facilities, equipment, and personnel to be made available, and procedures to be followed, in order to comply with applicable rules and regulations. Each such plan shall indicate:
 - a. The area where the activity is to take place;
 - b. Anticipated type and quantity of non-hazardous solid waste to be generated;
 - c. Procedures and equipment to be made available for collection and storage of non-hazardous solid waste;
 - d. Procedures for final disposal of the non-hazardous solid waste generated and the place or places where it will be

disposed of; and

- e. Such additional data and information as may be requested by the Board.

D. Standards for Granting Permits to Operate.

No permit to operate shall be granted unless the applicant shows to the satisfaction of the Board that the activity will be in compliance with all applicable rules and regulations.

RULE 907 - CONTINUING RESPONSIBILITY FOR COMPLIANCE

Possession of a permit to construct or operate any solid waste facility, or transportation or collection service, or solid waste generating activity within the Commonwealth of Puerto Rico shall not relieve any person of the responsibility to comply with this regulation.

Application for an initial compliance plan under Rule 908 or possession of an approved initial compliance plan under Rule 908 or a dispensation under Rules 909 or 910, however, does provide relief from the requirements of this regulation but only to the extent that the requirement is specifically addressed in the initial compliance plan or dispensation. Neither permits to construct or operate nor initial compliance

plans or dispensations, however, relieve any person of the responsibility for complying with new or additional requirements established by revisions to this regulation.

RULE 908 - INITIAL COMPLIANCE PLANS FOR EXISTING SOLID WASTE FACILITIES AND COLLECTION AND TRANSPORTATION SERVICES AND ENFORCEMENT COMPLIANCE PLANS FOR VIOLATIONS OF ANY REQUIREMENT OF THIS REGULATION

A. Applicability.

Compliance plans are principally applicable to existing solid waste facilities and collection and transportation services that have not attained initial compliance with one or more of the requirements (described below) for which initial compliance plans are available. These plans are called initial compliance plans. Compliance plans are also applicable to any solid waste facility or collection or transportation service or generating activity determined to be in violation of any requirement of this regulation. Such plans are called enforcement compliance plans. They are used to establish a schedule for achieving compliance with requirements being violated. They do not, however, limit the Board from imposing other sanctions or seeking other relief with respect to such violations.

Initial compliance plans are only applicable to

requirements in this regulation that cannot be satisfied without making significant capital expenditures. They are specifically not applicable to the general prohibitions of Part III of this regulation or to the following requirements concerning hazardous solid waste:

1. The hazardous solid waste identification and listing requirements.
2. The special requirements applicable to all hazardous solid waste handlers concerning:
 - a. Recordkeeping and reporting, and
 - b. Use of a manifest system.
3. The special hazardous solid waste generator requirements concerning:
 - a. Short-term accumulation of hazardous solid waste prior to shipment, and
 - b. International shipments.
4. The special hazardous solid waste transportation requirements concerning discharges of hazardous solid waste.
5. The special hazardous solid waste treatment, storage, and disposal facility requirements concerning:
 - a. Preparation for and prevention of releases of hazardous solid waste and contingency plans and emergency procedures for responding to such releases;

- b. Closure and post-closure;
- c. Ground-water monitoring;
- d. Security to prevent unknowing and unauthorized access;
- e. Personnel training;
- f. Inspection and monitoring; and
- g. Any other requirements analogous to facility standards in EPA regulation 40 CFR Part 265.

B. Initial Compliance Plans.

Eighteen (18) months after the effective date of this regulation (i.e., May 13, 1982), no person shall own or operate or cause the operation of an existing solid waste facility, hazardous solid waste transportation service, or non-hazardous solid waste collection service in violation of any requirement to which initial compliance plans are applicable unless the owner or operator of such facility or service has:

1. Submitted a complete and timely application for an operating permit and an initial compliance plan for achieving that requirement, or
2. Is operating in accordance with an initial compliance plan for achieving that requirement that has been approved by the Board.

C. Proposed Initial and Enforcement Compliance Plans.

1. Any existing solid waste facility or transportation or collection service not in compliance with this regulation within eighteen (18) months of its effective date shall have submitted a proposed initial compliance plan with its application to the Board for a permit to operate.
2. Proposed enforcement compliance plans may be submitted by the owner or operator of a solid waste facility or generating activity or a hazardous solid waste transportation service or non-hazardous solid waste collection service for which an enforcement action has been commenced and for which a period of more than ninety (90) days is required to achieve compliance.

D. Contents of Proposed Compliance Plan.

All compliance plans submitted to the Board will comply with the following requirements:

1. The proposed compliance plan will establish specific increments of progress and will establish specific dates by which the increments are to be accomplished.
2. If the proposed compliance plan has a schedule of compliance which exceeds one (1) year from

the date the permit application is submitted, the schedule shall set forth interim requirements and the dates for their achievement.

3. The proposed compliance plan will establish final compliance dates for achieving compliance with each requirement that is being violated. The final compliance dates will be the most expeditious ones that can be achieved.
4. The proposed compliance plan will also establish reporting requirements for the permittee to notify the Board, in writing, of its compliance or non-compliance with the interim requirements, with increments of progress, and with final requirements. No more than fourteen (14) days will be allowed to report the status of any of these requirements.
5. Each proposed compliance plan shall be signed by the owner or operator of the solid waste facility or generating activity or transportation or collection service.

E. Pre-Application Conference.

Before submitting a proposed compliance plan for approval, the applicant or his authorized agent shall first confer in person with the Board or its staff.

F. Standards for Granting Compliance Plans

No compliance plan shall be approved by the Board unless the applicant establishes each of the following to the satisfaction of the Board:

1. The plan will not prevent the attainment of the purposes and goals of the Public Policy Environmental Act (Law No. 9 of 1970, as amended).
2. The plan provides for final compliance as expeditiously as practicable.
3. The plan provides for increments of progress and interim requirements that provide the maximum practicable protection for human health and for the environment.

RULE 909 - DISPENSATIONS

A. Dispensation Authorized.

The Board may grant dispensations from the substantive requirements of this regulation but only in accordance with this rule.

B. Pre-Application Conference.

Before filing an application for a dispensation, the applicant or his authorized agent must first confer in person with the Board or a member of its staff.

C. Applications.

Each application for dispensation shall include the following:

1. If the proposed dispensation pertains to a new solid waste facility or to a new solid waste transportation or collection service, the application for dispensation shall include a copy of the application for a permit to construct the proposed facility or to operate the proposed service.
2. If the proposed dispensation pertains to an existing solid waste facility or to an existing transportation or collection service, the application for dispensation shall include a copy of the application for an operation permit and for approval of a proposed compliance plan.
3. A description of the rule or regulation from which dispensation is requested must be included, stating clearly the nature and extent of the proposed dispensation.
4. The reasons in support of the dispensation must be clearly stated and must include an explanation of exactly why full compliance is not possible.
5. All adverse impacts to human health and the environment must be explained.

6. A description of the interim control measures that shall be taken by the facility must be included.
7. All actions taken by the permittee to remove any conditions giving rise to the need for a dispensation shall be described.
8. A certification of the deposit of the filing required by Part X shall be included.
9. Any other information the Board considers necessary to make a determination regarding the dispensation application must be provided.

D. Standards for Granting Dispensations.

No dispensation shall be granted unless the applicant shows the following to the satisfaction of the Board:

1. The dispensation shall not cause significantly adverse impacts on public health or the environment.
2. The dispensation will not prevent or interfere with the purposes, goals, and standards of the Public Policy Environmental Act (Law No. 9 of June 18, 1970, as amended).
3. That the granting of such dispensation is not in violation of the Resource Conservation and Recovery Act, as amended, or any regulations promulgated by EPA thereunder.

4. None of the categorical requirements of this regulation, such as the prohibition against open burning, will be violated.

E. Procedures for Dispensation Applications.

An application for a dispensation will be treated in all respects as an application for a permit, except that, as provided in Section 209(A), a public hearing is mandatory.

F. Period of Validity.

The Board shall establish the period of validity for the dispensation. The period will be as short as possible and in no event greater than three (3) years. To seek renewal or extension of a dispensation, the owner or operator of the facility or service shall, at least 120 days before its expiration, file an application for a new dispensation.

RULE 910 - TEMPORARY EMERGENCY DISPENSATIONS

The Board may grant temporary emergency dispensation but only under very grave circumstances when clearly and absolutely necessary to avoid imminent and substantial danger to human health and the environment.

RULE 911 - EMERGENCY PERMITS

A. Emergency Permits Authorized.

If the Board finds an imminent and substantial endangerment to human health or the environment, the Board may issue a temporary emergency permit to a facility to allow the treatment, storage, or disposal of hazardous or non-hazardous solid waste at a non-permitted facility.

B. Emergency Permit Procedures.

An emergency permit:

1. May be oral or written (If oral, it shall be followed within five (5) days by a written emergency permit);
2. Shall not exceed ninety (90) days in duration;
3. Shall clearly specify the hazardous or non-hazardous solid waste involved and the manner and location of its treatment, storage, or disposal;
4. May be terminated by the Board at any time, if it is determined that termination is necessary to protect human health or the environment;
5. Shall be accompanied by a public notice stating:
 - a. Name and address of the office granting the emergency authorization,

- b. Name and location of the solid waste facility granted the emergency permit,
 - c. A brief description of the waste involved,
 - d. A brief description of the action authorized and reasons for authorizing it, and
 - e. The duration of the emergency permit;
6. Shall incorporate, to the maximum extent possible and not inconsistent with the emergency situation, all applicable requirements of this regulation; and
7. May be issued without a public hearing.

RULE 912 - PERMIT DECISION-MAKING PROCEDURES

A. Applicability.

The procedures established by this part apply to all permits issued under this regulation, including those issued:

- 1. For construction of new or modified solid waste facilities (Rule 902);
- 2. To operate solid waste facilities (including temporary permits to operate) (Rule 903);
- 3. To operate hazardous solid waste transportation services (Rule 904);
- 4. To operate non-hazardous solid waste collection services (Rule 905);

5. To operate non-hazardous solid waste generating activity (Rule 906);
6. For compliance plans issued in conjunction with operating permits (Rule 908); and
7. For dispensations (Rule 909).

B. Applications.

Any person who requires a permit under this regulation shall complete, sign, and submit to the Board an application for each permit required.

Applications are not required for permits by rule.

The Board shall not begin the processing of a permit until the applicant has fully complied with all the application requirements for that permit.

Permit applications must comply with the requirements described in this part and with the signature and certification requirements.

C. Action on Applications.

1. Within sixty (60) days after receiving an application, the Board will notify the applicant in writing about the completeness of such application.
2. Within 180 days after receipt of a completed application for a permit, the Board shall grant or deny the application unless extensions have been granted to the period of public comment or

for the conduct of public hearings.

D. Modification, Revocation and Reissuance, and Termination of Permits.

1. Permits may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon the Board's initiative. However, permits may only be modified, revoked and reissued, or terminated when:

- a. Applicable rules and regulations are changed;
- b. The terms and conditions of the permit have been violated;
- c. It is necessary for the protection of human health or the environment; or
- d. An emergency condition is present.

All requests for such action shall be in writing and shall contain the facts or reasons supporting the request.

2. If the Board decides the request is not justified, it shall send the requester a brief written response giving a reason for its decision. Denials of request for modification, revocation and reissuance, or termination are not subject to public notice, comment, or hearings.

3. If the Board tentatively decides to modify or revoke and reissue a permit it shall prepare a draft permit incorporating the proposed changes. The Board may request additional information and, in the case of a modified permit, may require the submission of an updated permit application. In the case of revoked and reissued permits, the Board shall require the submission of a new application.
4. In a permit modification under this section, only those conditions to be modified shall be reopened when a new draft permit is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit. When a permit is revoked and reissued under this section, the entire permit is reopened just as if the permit had expired and was being reissued. During any revocation and reissuance proceeding the permittee shall comply with all conditions of the existing permit until a new final permit is reissued.
5. If the Board tentatively decides to terminate a permit, it shall issue a notice of intent to terminate. A notice of intent to terminate is a type of draft permit which follows the same procedures as any draft permit.
6. In the case of imminent threat to human health

or the environment, the Board may modify, revoke and reissue, or terminate a permit without notice and opportunity for a hearing.

7. A permit which has been revoked pursuant to this regulation shall be surrendered forthwith to the Board.
8. Revocation or modification of a permit to operate a hazardous solid waste disposal facility will not relieve the owner or operator from its responsibility to comply with the closure and post-closure requirements of this regulation.

E. Draft Permits.

1. Once an application is complete, the Board shall tentatively decide whether to prepare a draft permit or to deny the application.
2. If the Board tentatively decides to deny the permit application it shall issue a notice of intent to deny. A notice of intent to deny the permit application is a type of draft permit which follows the same procedures as any draft permit. If the Board's final decision is that the tentative decision to deny the permit application was incorrect, it shall withdraw the notice of intent to deny and proceed to prepare a draft permit under this section.

3. If the Board decides to prepare a draft permit, it shall prepare one that contains the following information:
 - a. All conditions,
 - b. All compliance plans,
 - c. All monitoring requirements, and
 - d. Standards for transportation, collection, treatment, storage, or disposal,
4. All draft permits prepared under this section shall be based on the background documents, publicly noticed, and made available for public comment.
5. The Board shall thereafter give notice of opportunity for a public hearing, issue a final decision, and respond to comments.

F. Statement of Basis.

The Board shall prepare a statement of basis for every draft permit for which a fact sheet under Section G, below, is not prepared. The statement of basis shall briefly describe the derivation of the conditions of the draft permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons supporting the tentative decision. The statement of basis shall be sent to the applicant and, on request, to any other person.

G. Fact Sheet.

1. A fact sheet shall be prepared for every draft permit for a major solid waste facility, hazardous solid waste transportation service, or non-hazardous solid waste collection service, or generating activity. One shall also be prepared for every draft permit which the Board finds is the subject of widespread public interest or raises major issues. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. The Board shall send this fact sheet to the applicant and, on request, to any other person.
2. The fact sheet shall include, when applicable:
 - a. A brief description of the type of facility or service which is the subject of the draft permit;
 - b. The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, or disposed of or transported or collected;
 - c. A brief summary of the basis for the draft permit conditions, including references to applicable statutory or regulatory

provisions and appropriate supporting references to background documents;

d. Reasons why any dispensations to required standards do or do not appear justified; and

e. A description of the procedures for reaching a final decision on the draft permit including:

(1) The beginning and ending dates of the comment period and the address where comments will be received;

(2) Procedures for requesting a hearing and the nature of that hearing;

(3) Any other procedures by which the public may participate in the final decision; and

(4) The name and telephone number of a person to contact for additional information.

H. Public Notice of Permit Actions and Public Comment Period.

1. The Board shall give public notice that the following actions have occurred:

a. A permit application has been tentatively denied;

- b. A draft permit has been prepared; or
- c. A hearing has been scheduled.

No public notice is required when a request for permit modification, revocation and reissuance, or termination is denied, but written notice of that denial shall be given to the requester and to the permittee.

- 2. Public notice of the preparation of a draft permit (including a notice of intent to deny a permit application) required under this section shall allow at least forty-five (45) days for public comment. Public notice of a public hearing shall be given at least forty-five (45) days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit and the two (2) notices may be combined.)
- 3. Public notice of activities described in this section shall be given in the manner specified in Section 210(B).
- 4. All public notices issued with respect to permits shall contain the following minimum information:
 - a. Name and address of the office processing the permit action for which notice is being given;
 - b. Name and address of the permittee or

permit applicant and, if different, of the facility or service regulated by the permit;

- c. A brief description of the business conducted at the facility or service described in the permit application or the draft permit;
- d. Name, address, and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit or draft general permit, as the case may be, the statement of basis or fact sheet, and the application;
- e. A brief description of the comment procedures and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final permit decision; and
- f. The location of background documents and the times at which they will be available for public inspection, and a statement that all data submitted by the applicant is available as part of the background

documents.

5. In addition to the general public notice described above, all interested persons shall be mailed a copy of the fact sheet or statement of basis, the permit application (if any), and the draft permit (if any).

I. Public Comments and Requests for Public Hearings.

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided below.

J. Public Hearings.

1. The Board shall hold a public hearing on permit actions whenever it is considering a dispensation request, or finds, on the basis of requests, a significant degree of public interest in a draft permit. The Board also may hold a public hearing at its discretion whenever, for instance, such a hearing might clarify one or more issues involved in the

permit decision. Public notice of the hearing shall be given as specified above.

2. Whenever a public hearing will be held, the Board shall designate a Presiding Officer for the hearing who shall be responsible for its scheduling and orderly conduct.
3. Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period under Section I shall automatically be extended to the close of any public hearing under this section. The hearing officer may also extend the comment period by so stating at the hearing.
4. A tape recording or written transcript of the hearing shall be available to the public.

K. Response to Comments.

1. Before any final permit decision is made and issued, the Board shall issue a response to comments in accordance with Section 4(c) of the Public Policy Environmental Act (Law No.9 of 1970, as amended). This response shall:
 - a. Specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for

the change; and

b. Briefly describe and respond to all significant comments on the permit application and proposed action raised during the public comment period or during any hearing.

2. The response to comments shall be available to the public.

L. Transfer of Permit.

1. The holder of a permit may not transfer it without written approval from the Board.

2. A permit which has lapsed or otherwise been terminated or revoked cannot be transferred. However, a new application for a permit can be submitted for the same facility or service by a new owner or operator.

3. The Board will impose a transfer fee, as described in Part X, for issuance of a transferred permit to the new holder.

M. Temporary Permit to Operate.

1. The Board may grant a temporary permit to

operate a solid waste facility or service whenever:

- a. The owner or operator of the solid waste facility or service has applied for a modification to a schedule of the increments of progress contained in a compliance plan approved by the Board;
- b. The Board has requested, from the holder of a valid permit to construct, performance tests prior to the issuance of a permit to operate;
- c. There is pending a proposed revision to applicable rules and regulations which would affect the facility;
- d. The facility is temporary in nature, such as a pilot plant or research facility that would not operate for more than two (2) years;
- e. A dispensation application has been preliminarily approved by the Board;
- f. The owner or operator of the solid waste facility or service, prior to satisfying the requirements for a permit to operate, demonstrates to the satisfaction of the

Board that the facility or service needs to be operated for a given period in order to reach normal or steady operating conditions and to do so does not represent a hazard to human health or the environment; or

- g. The owner or operator submitted a complete application for a permit to operate at least sixty (60) days in advance of the start up of a new facility, or the expiration date of an existing operating permit, or of the effective date of these regulations, and the permit has not been denied or granted.
2. Upon granting a temporary permit to operate, the Board will state the conditions for the issuance and the date of termination of the temporary permit, which in no case will extend for more than 180 days, except in case of a temporary facility, in which case it could extend to a maximum of two (2) years.
 3. A temporary permit to operate could be extended beyond its termination date.

PART X
PERMIT FEES

PART X - PERMIT FEES

RULE 1001 - PERMIT FEES

A. Applicability.

This rule establishes filing, permit, and renewal fees to be paid for:

1. Filing an application for any of the following:
 - a. Compliance plans,
 - b. Permits to construct,
 - c. Permits to operate,
 - d. Temporary permits to operate,
 - e. Modifications of permit conditions,
 - f. Dispensations, or
 - g. Revisions or modifications of a permit or compliance plan;
2. Obtaining any of the following:
 - a. Permits to construct,
 - b. Permits to operate, or
 - c. Revisions or modifications of a permit or compliance plan;
3. Transferring ownership or changing the location of any of the following:
 - a. Permits to construct,
 - b. Permits to operate, or
 - c. Dispensations; and
4. Obtaining renewal of a permit to operate.

B. Filing Fees.

1. Every person filing an application for a permit, for an approval, or for a permit modification shall pay a filing fee of \$15.00.
2. The filing fee shall not be refunded if an application for a permit, an approval or

permit modification is cancelled or denied.

C. Permit Fees.

1. An applicant for a permit to construct any non-hazardous or hazardous solid waste facility shall, in addition to the filing fee, pay the permit fee set forth in Section E.
2. In case of a proposed new non-hazardous solid waste facility, the amount determined from Section E shall be multiplied by 1.5 to cover both the permit to construct and the permit to operate.
3. In case of a proposed new hazardous solid waste facility the amount determined from Section E shall be multiplied by 1.5 to cover both the permit to construct and the permit to operate.
4. If more than one fee schedule is applicable to a permit or an approval application, the governing schedule shall be the one which results in the higher fee.
5. The filing fee and the permit fee shall be deposited together, except as provide in Section D.
6. The permit fee shall not be refunded if an application for a permit is cancelled or denied.

D. Renewal Fees.

1. All permits to operate shall be renewable upon their expiration date. Sixty (60) days before such date, and together with the application for renewal of the permit to operate, pursuant to Section 903(J), the permittee shall pay a renewal fee.
2. The renewal fee for a permit to operate shall be 50 percent (50%) of the amount shown in the schedule in Section E, except for hazardous solid waste facilities for which the renewal fee shall be 65 percent (65%) of the amount shown in Section E.
3. If the renewal application is not submitted within the sixty (60) days period required by Section 903(J), the renewal fee shall be increased by fifty percent (50%) per day of the amount determined under Paragraph 2.

E. Schedules for Permit Fees and Renewal Fees.

The following schedules establish permit fees for all hazardous and non-hazardous facilities and activities.

Schedule I: Land Storage, Treatment, or Disposal Facilities.

Any landfill, land treatment, and waste pile shall be assessed a permit fee based on the total acreage of the facility and the type of waste received, in accordance with the following schedules:

<u>Size of Site (acres)</u>	<u>Permit Fee</u>	
	<u>Non-Hazardous Solid Waste</u>	<u>Hazardous Solid Waste</u>
20 or less	\$ 25.00	\$100.00
20 to 60	50.00	200.00
60 to 100	75.00	250.00
100 to 200	100.00	300.00
Additional 200 or fraction	100.00	150.00

Schedule II: Storage and Treatment Tanks and Surface Impoundments.

Storage treatment tanks and surface impoundments shall be assessed a permit fee according to the following schedule based on capacity, in gallons, and on type of waste received.

<u>Capacity (gallons)</u>	<u>Permit Fee</u>	
	<u>Non-Hazardous Solid Waste</u>	<u>Hazardous Solid Waste</u>
less than 4,000	\$ 25.00	\$100.00
4,001 to 10,000	25.00	150.00
10,001 to 40,000	50.00	200.00
40,001 to 100,000	75.00	250.00
100,001 to 500,000	100.00	300.00
500,001 to 1,000,000	100.00	350.00
1,000,001 to 1,500,000	150.00	400.00
1,500,001 to 2,000,000	200.00	500.00
Additional 500,000 or fraction	100.00	100.00

Schedule III: Processing and Treatment Facilities.

Based upon type of facility and type of waste, the following permit fees shall be assessed incinerators and thermal treatment plants (i.e., plants used primarily to dispose of or treat combustible waste by wholly consuming the materials charged, leaving only ashes or residues); compactors and shredders; and non-thermal treatment facilities (i.e., biological, physical, or chemical treatment).

<u>Type of Facility</u>	<u>Permit Fee</u>	
	<u>Non-Hazardous Solid Waste</u>	<u>Hazardous Solid Waste</u>
1. On-site	\$ 25.00	\$100.00
2. Central Plant	100.00	250.00

Schedule IV: Collection and Transportation Services.

Services for hazardous and non-hazardous solid waste shall be assessed a permit fee as follows.

<u>Type of Service</u>	<u>Permit Fee</u>
Collection Service (non-hazardous solid waste)	\$100.00
Transportation Service (hazardous solid waste)	\$250.00

Schedule V: Miscellaneous.

Any hazardous or non-hazardous solid waste treatment storage or disposal facility which is not covered by any of the preceding schedules shall be assessed a permit fee of \$250.00.

F. Permit Fee Exceptions.

Notwithstanding the requirements of Section E of this rule, a fee of twenty-five dollars (\$25.00) shall be assessed for permits for the following activities or services:

1. Transfer stations,
2. Solid waste generating activities, and
3. Salvage yards.

G. Specific Exclusions.

The following persons are excluded from fees established in this regulation:

1. Generators who accumulate hazardous solid waste on-site for less than ninety (90) days as provided in Section 704(D);
2. Farmers who dispose of hazardous solid waste from their own use as provided in Section 705(C); and
3. Small quantity generators as provided for in Section 606(A).

H. Fees for Transfer of Ownership or Change of Location.

Whenever an application is filed for a permit because the facility has been moved to a new location or because ownership has been transferred from one person to another, and a permit has previously been granted for such facility and no

alteration or addition has been or need be made, the applicant shall pay the filing fee provided in Section B and a permit fee equal to fifty percent (50%) of the permit fee established in Section E of this rule.

I. Fees for Duplicate Permits.

A request for a duplicate permit shall be in writing by the permittee upon the destruction, loss, or defacement of a permit document. A fee of \$10.00 shall be charged for issuing a duplicate permit.

J. Fees for Revisions.

For a request for the revision of a permit to construct, of a compliance plan, or of a permit to operate, the applicant shall pay one-eighth (1/8) of the fee provided in Section C.

RULE 1002 - TEST FEES

A. Testing Authority.

The Board may, when it deems necessary, conduct performance tests of hazardous or non-hazardous solid waste facilities in order to determine the extent and amount of pollutants being discharged into the ambient air, water, or land; compliance

with permit conditions; or compliance with this regulation.

B. Test Procedures.

In such a case, the Board shall notify the owner or operator of the hazardous or non-hazardous solid waste facility of its intentions, and may request the equipment or appurtenances necessary for carrying out the test.

C. Test Expenses.

The owner or operator of the hazardous or non-hazardous solid waste facility shall pay all fees or expenses incurred by the Board for the performance tests.

D. Procedure for Payment of Test Expenses.

After the performance tests are complete, the owner or operator of the hazardous or non-hazardous solid waste facility shall be notified by the Board, in writing, of the fees or expenses to be paid for such tests. Failure to pay the Board such test fees or expenses within thirty (30) days of such notice shall result in denial or cancellation of the permit to operate the facility tested.

E. Copies of Test Results.

Upon payment of all fees or expenses incurred in the conduct of performance tests, the owner or operator shall be entitled to one (1) copy of the performance test report.

ATTACHMENT A13 49 CFR 173.51, 173.53, and 173.88
(Test Methods for Reactivity)

ATTACHMENT A14 Appendix II, 40 CFR Part 26
(Text Method for Extraction Procedure
(EP) Toxicity)

ATTACHMENT A15 40 CFR 261.33(c)
(Containers Subject to Waste Regulation)

ATTACHMENT A16 40 CFR 261.33(e)
(List of Acutely Hazardous Chemical
Products)

ATTACHMENT A17 40 CFR 261.33(f)
(List of Toxic Chemical Products)

ATTACHMENT A18 40 CFR 261.31
(List of Hazardous Wastes from
Non-Specific Sources)

ATTACHMENT A19 40 CFR 261.32
(List of Hazardous Wastes from
Specific Sources)

ATTACHMENT A20 49 CFR 172.101, 172.202, and 172.203
(Waste Descriptions for Transportation)

ATTACHMENT A21 33 CFR 153.203
(Notice Requirements for Spills)

ATTACHMENT A22 Table II-1 to Table II-6 of the
"Flammable and Combustible Code-1977"
prepared by the National Fire
Protection Association
(Buffer Zones for Tanks)

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ATTACHMENT A

Federal Regulations or Publications
Incorporated Into
the
Commonwealth Regulation for the
Control of Hazardous
and Non-Hazardous Solid Waste

<u>Applicable Rule in Commonwealth Waste Control Regulation</u>	<u>Federal Regulation or Publication Cited in Commonwealth Rule</u>	<u>Reason for Incorporation into the Commonwealth Rule</u>
Rule 102 ("Cation Exchange Capacity")	"Methods of Soils Analysis, Agronomy Monograph No. 9" C.A. Block, ed., American Society of Agronomy, Madison, Wisc., pp. 891-901, 1965 (Attachment A1)	This publication establishes a method for determining cation exchange capacity of soils according to soil type.
Rule 102 ("Hazardous Waste Constituent")	Appendix VIII, 40 CFR Part 261 and Table I, 40 CFR 261.24 (Attachments A2 and A3)	This Appendix is used in Rule 102 and Rule 603(B)(3) as one of the basis for listing a solid waste as a hazardous solid waste.
Rule 102 ("Hazardous Waste Substance or Material")	49 CFR 171.8 and 173 (Attachment A4)	This provisions identifies substances or materials determined by the Secretary of the United States Department of Transportation to be capable of posing unreasonable risk to health, safety, and property when transported.

Applicable Commonwealth Rule	Federal Regulation or Publication	Reason for Incorporation
Rule 203(C)	40 CFR Part 141 and Part 257; ASTM Specifications (Attachments A5 and A6)	These provisions contain test methods and procedures for hazardous and non- hazardous solid waste.
Rule 207(C)	40 CFR Part 141 and "Test Methods for the Evaluation of Solid Wastes, Physical/ Chemical Methods," SW846 (an EPA publication) (Attachments A7 and A8)	This rule provides that certain changes in these federal regulations and publications become effective upon promulgation by EPA and approval by the Environmental Quality Board.
Rule 304(D)	40 CFR Part 257 (Attachment A9)	This federal regulation establishes maximum permissible cadmium concentration limitations for land treatment of solid waste.
Rule 603(B) (3)	Appendix VIII, 40 CFR Part 261 (Attachment A2)	See comment regarding Rule 102 ("Hazardous Waste Constituents") described above.

Applicable
Commonwealth Rule

Federal Regulation
or Publication

Reason for
Incorporation

Rule 604(A)

ASTM Standard
D-93-79
(Pensky-Martens
Closed Test) and
ASTM Standard
D-3278-78
(Setaflash Closed
Tester)
(Attachments A10 and
A11)

These referenced
test methods are
used to determine
if a solid waste
is ignitable
and therefore a
hazardous solid
waste.

Rule 604(B)

"Test Methods for the
Evaluation of Solid
Waste, Physical/
Chemical Methods"
EPA 600/4-79-020
and National
Association of
Corrosion Engineers
Standard TM-01-69
(Attachments A7 and
A12)

These test methods
are used to
determine if a
solid waste is
corrosive and thus
a hazardous solid
waste.

Rule 604(C)

49 CFR 173.51,
173.53 and 173.88
(Attachment A13)

These regulatory
provisions are used
in part to determine
if a solid waste is
reactive and thus a
hazardous solid
waste.

Applicable
Commonwealth Rule

Federal Regulation
or Publication

Reason for
Incorporation

Rule 604(D)

Appendix II,
40 CFR Part 261
(Attachment A14)

This regulatory provision establishes the test method for determining whether or not a solid waste satisfies the "EP Toxicity Test" and thus is a hazardous solid waste.

Rule 606 and
Rule 607

40 CFR 261.33(c),
(e), and (f)
(Attachments A15,
A16, and A17)

These federal regulatory provisions determine whether certain containers and certain commercial chemical products are subject to the Commonwealth waste regulation.

Rule 608

40 CFR 261.31 and
261.32
(Attachments A18
and A19)

These provisions are used to determine whether certain solid wastes from specific and non-specific sources are hazardous solid wastes.

Applicable
Commonwealth Rule

Federal Regulation
or Publication

Reason for
Incorporation

Rule 703(E) (6)

49 CFR 172.101,
172.202, and
172.203
(Attachments A4
an A20)

These federal
regulations are
used to establish
the hazardous waste
descriptions that
must be used on
hazardous solid
waste manifests.

Rule 707(D)

33 CFR 153.203
(Attachment A21)

This reference to a
federal regulation
is used to establish
the notice
requirements of
spills of hazardous
solid waste.

Rule 803(F) (2)

Table II-1 to
Table II-6 of the
"Flammable and
Combustible Code-
1977" prepared by
the National Fire
Protection
Association
(Attachment A22)

This reference is
used to establish
buffer zones for
tanks containing
hazardous solid
waste.

ATTACHMENT A1

"Methods of Soils Analysis, Agronomy
Monograph No. 9", C.A. Block, ed.,
American Society of Agronomy, Madison,
Wisconsin, pp. 891-901, 1965
(Cation Capacity Test)

ATTACHMENT A2

Appendix VIII, 40 CFR Part 261
(List of Hazardous Constituents)

(Note: This document was copied from a list provided by the U.S. Environmental Protection Agency, Office of Solid Waste. It is adapted from the list of the hazardous constituents that was published in 46 Federal Register 27477 to 27480 on May 20, 1981, but corrects several errors that appeared in that publication.)

ATTACHMENT A3

Table I, 40 CFR 261.24
(List of Hazardous Constituents)

(Note: This document was copied from p. 913
of 40 CFR Parts 100 to 399, revised as of
July 1, 1980.)

ATTACHMENT A4

40 CFR 171.3
("Hazardous Materials and Substances")

(Note: Only the definitions of the words "hazardous material" and "hazardous substance" are significant to the Commonwealth Regulation for the Control of Hazardous and Non-Hazardous Solid Waste. For completeness, however, the entire rule is reproduced in this attachment as it appeared on pp. 53 to 58 of 49 CFR Parts 100 to 177, revised as of December 1, 1980.

Specific materials determined to be "hazardous materials" are listed in 49 CFR 172.101 in the Hazardous Materials Table. This table, as it appears on pp. 64 to 161 of 49 CFR Parts 100 to 177, revised as of December 1, 1980, is included in this attachment, as are subsequent additions to the table published on March 19, 1981 in 46 Federal Register 17739 to 17743.)

ATTACHMENT A5

40 CFR Part 141 (Test Methods)

(Note: The Part 141 test methods are contained in Subpart C. That subpart is reproduced here from pp. 296 to 332 of 40 CFR Parts 100 to 399, revised as of July 1, 1980.

Also included are subsequent amendments to Subpart C found at 46 Federal Register 57343 to 57345 (August 27, 1980) and a new Subpart E with special test methods and found at 46 Federal Register 57345 to 57346 (August 27, 1980).)

ATTACHMENT A6

40 CFR Part 257 (Test Methods)

(Note: The Part 257 test methods are in Appendices I and II. Those appendices are reproduced here from pp. 890 to 892 of 49 CFR Parts 100 to 399, revised as of July 1, 1980.)

ATTACHMENT A7

40 CFR Part 141, Subpart B
(Maximum Containment Levels)

(Note: The Maximum Containment Levels are in Subpart B of 40 CFR 141. The copy attached hereto is from 40 CFR Parts 100 to 399, revised as of July 1, 1980.

Subpart B was amended on August 27, 1980, and the amendment was published in 46 Federal Register 57342 and 57343. Copies of this amendment are also attached.)

ATTACHMENT A8

"Test Methods for the Evaluation of
Solid Wastes: Physical/Chemical
Methods," SW846 (Test Methods)

ATTACHMENT A9

40 CFR Part 257
(Cadmium Limitations for Land Treatment)

(Note: These limitations on cadmium are contained in 40 CFR 257.3-5(a), and the copy reproduced here was taken from pp. 887 and 888 of 40 CFR Parts 100 to 399, revised July 1, 1980.)

ATTACHMENT A10

ASTM Standard D-93-79
(Test Method for Ignitability)

(Note: The attached copy of this ASTM standard is designated ASTM D-93-80. It is a revised version of ASTM D-93-79, incorporating several minor technical changes.)

ATTACHMENT A2

Appendix VIII, 40 CFR Part 261
(List of Hazardous Constituents)

(Note: This document was copied from a list provided by the U.S. Environmental Protection Agency, Office of Solid Waste. It is adapted from the list of the hazardous constituents that was published in 46 Federal Register 27477 to 27480 on May 20, 1981, but corrects several errors that appeared in that publication.)

ATTACHMENT A3

Table I, 40 CFR 261.24
(List of Hazardous Constituents)

(Note: This document was copied from p. 913
of 40 CFR Parts 100 to 399, revised as of
July 1, 1980.)

ATTACHMENT A4

40 CFR 171.3
("Hazardous Materials and Substances")

(Note: Only the definitions of the words "hazardous material" and "hazardous substance" are significant to the Commonwealth Regulation for the Control of Hazardous and Non-Hazardous Solid Waste. For completeness, however, the entire rule is reproduced in this attachment as it appeared on pp. 53 to 58 of 49 CFR Parts 100 to 177, revised as of December 1, 1980.

Specific materials determined to be "hazardous materials" are listed in 49 CFR 172.101 in the Hazardous Materials Table. This table, as it appears on pp. 64 to 161 of 49 CFR Parts 100 to 177, revised as of December 1, 1980, is included in this attachment, as are subsequent additions to the table published on March 19, 1981 in 46 Federal Register 17739 to 17743.)

ATTACHMENT A5

40 CFR Part 141 (Test Methods)

(Note: The Part 141 test methods are contained in Subpart C. That subpart is reproduced here from pp. 296 to 332 of 40 CFR Parts 100 to 399, revised as of July 1, 1980.

Also included are subsequent amendments to Subpart C found at 46 Federal Register 57343 to 57345 (August 27, 1980) and a new Subpart E with special test methods and found at 46 Federal Register 57345 to 57346 (August 27, 1980).)

ATTACHMENT A6

40 CFR Part 257 (Test Methods)

(Note: The Part 257 test methods are in Appendices I and II. Those appendices are reproduced here from pp. 890 to 892 of 49 CFR Parts 100 to 399, revised as of July 1, 1980.)

ATTACHMENT A7

40 CFR Part 141, Subpart B
(Maximum Containment Levels)

(Note: The Maximum Containment Levels are in Subpart B of 40 CFR 141. The copy attached hereto is from 40 CFR Parts 100 to 399, revised as of July 1, 1980.

Subpart B was amended on August 27, 1980, and the amendment was published in 46 Federal Register 57342 and 57343. Copies of this amendment are also attached.)

ATTACHMENT A8

"Test Methods for the Evaluation of
Solid Wastes: Physical/Chemical
Methods," SW846 (Test Methods)

ATTACHMENT A9

40 CFR Part 257
(Cadmium Limitations for Land Treatment)

(Note: These limitations on cadmium are contained in 40 CFR 257.3-5(a), and the copy reproduced here was taken from pp. 887 and 888 of 40 CFR Parts 100 to 399, revised July 1, 1980.)

ATTACHMENT A11

ASTM Standard D-3278-78
(Test Method for Ignitability)

ATTACHMENT A12

National Association of Corrosive
Engineers Standard TM-01-69
(Test Method for Corrosivity)

(Note: This copy of standard TM-01-69
was taken from pp. 5.3-7 to 5.3-17 of
EPA publication SW846, "Test Methods for
Evaluating Solid Waste,
Physical/Chemical Methods." A copy of
this publication is ATTACHMENT A8.)

ATTACHMENT A13

49 CFR 173.51, 173.53, and 173.88
(Test Methods for Reactivity)

(Note: The attached copies of these federal regulations were taken from pp. 340 to 344 and pp. 363 to 365 of 49 CFR Parts 100 to 177, revised as of December 1, 1980.)

ATTACHMENT A14

Appendix II, 40 CFR Part 261
(Extraction Procedure Toxicity Test)

(Note: This federal regulatory provision was copied from pp. 923 to 927 of 40 CFR Parts 100 to 399, revised as of July 1, 1980.

Appendix II was amended on October 30, 1980. A copy of this amendment, as it appeared at 45 Federal Register 72040 and 72041, is also attached.)

ATTACHMENT A15

40 CFR 261.33(c)
(Containers Subject to Waste Regulations)

(Note: The copy of this regulation was made from p. 918 of 40 CFR Parts 200 to 399, revised as of July 1, 1980.

Also attached is a copy of a technical amendment to this regulation issued on May 20, 1981 at 46 Federal Register 27477.

The Environmental Quality Board intends to adopt or approve the version that appears at 40 CFR 261.33(c) (attached) as amended on May 20, 1981 by 46 Federal Register 27477 (also attached).

The Environmental Protection Agency has promulgated a revised version of 40 CFR 261.33(c) in conjunction with changes to several other sections of Part 261. These became effective on May 1, 1981, and the Board will consider making a corresponding change to the Commonwealth Regulation for the Control of Hazardous and Non-Hazardous Solid Waste at some future time.)

ATTACHMENT A16

40 CFR 261.33(e)
(List of Acutely Hazardous Chemical
Products)

(Note: Since it was initially published on May 19, 1980, the list of substances covered by 40 CFR 261.33(e) has been revised and corrected several times. It was republished on May 19, 1980 at 45 Federal Register 33124, and several months later on November 25, 1980 it was revised. More recently, on May 20, 1981, several mistakes and typographical errors were corrected at 40 CFR 27474. The list of substances attached herein was provided by the U.S. Environmental Protection Agency, Office of Solid Waste. It is a corrected and consolidated version that incorporates all of the changes described above.)

ATTACHMENT A17

40 CFR 261.33(f)
(List of Toxic Chemical Products)

(Note: This section of the EPA Hazardous Waste Regulation has been revised several times since it was initially published on May 19, 1980. The principal revisions occurred on November 25, 1980 (45 Federal Register 78533) and on May 20, 1980 (46 Federal Register 27474). The list attached here was provided by the U.S. Environmental Protection Agency, Office of Solid Waste. It is a corrected and consolidated version that incorporates all of the changes described above.)

ATTACHMENT A18

40 CFR 261.31
(List of Hazardous Wastes from
Non-Specific Sources)

(Note: The Environmental Protection Agency list of hazardous wastes from non-specific sources has been repeatedly revised since it was first issued on May 19, 1980. The attached copy was provided by the U.S. Environmental Protection Agency, Office of Solid Wastes, and it incorporates all of the changes and additions made since May 19, 1980.)

ATTACHMENT A18

40 CFR 261.31
(List of Hazardous Wastes from
Non-Specific Sources)

(Note: The Environmental Protection Agency list of hazardous wastes from non-specific sources has been repeatedly revised since it was first issued on May 19, 1980. The attached copy was provided by the U.S. Environmental Protection Agency, Office of Solid Wastes, and it incorporates all of the changes and additions made since May 19, 1980.)

ATTACHMENT A19

40 CFR 261.32

(List of Hazardous Wastes from Specific Sources)

(Note: The Environmental Protection Agency list of hazardous wastes from specific sources has been revised several times since it was promulgated on May 19, 1980. The attached copy of the list was obtained from the U.S. Environmental Protection Agency, Office of Solid Wastes, and it incorporates all of these prior changes.)

ATTACHMENT A20

40 CFR 172.202 and 172.203
(Waste Descriptions for Transporters)

(Note: These federal regulations were
copied from pp. 258 to 261 of 49 CFR
Parts 100 to 177, revised as of December
1, 1980.)

ATTACHMENT 21

33 CFR 153.203
(Notice Requirements for Spills)

ATTACHMENT A22

Table II-1 to Table II-6 of the
"Flammable and Combustible Code-1977"
prepared by the National Fire
Protection Association
(Buffer Zone Requirements for Tanks of
Hazardous Waste)