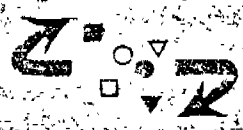
RULES AND REGULATIONS

HAZARDOUS WASTE MANAGEMENT PLAN

AS MANDATED BY ACT 334 OF 1978



STATE OF LOUISIANA
Edwin W. Edwards, Governor

DEPARTMENT OF NATURAL RESOURCES
William C. Huls, Secretary
James M. Hutchison, Deputy Secretary

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E. J. EDWARDS
GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

WILLIAM C. HULS
SECRETARY

June 7, 1979

The Honorable Edwin Edwards
Governor
State of Louisiana
Post Office Box 44004
Baton Rouge, Louisiana 70804

Dear Governor:

It is with a great deal of pride and pleasure that I hand you herewith the rules and regulations for the Hazardous Waste Management Program as promulgated by the Department of Natural Resources in accordance with Act 334 of 1978, together with letter of formal notification by the Chairmen of the House and Senate Natural Resources Committees notifying that the effective date for the implementation of these rules and regulations is to be August 1, 1979.

You are already familiar with the long drawn out negotiations, hearings, hours of controversy, etc., that were involved in getting this plan effectively in place. Many people contributed to the final document but I would be remiss if I did not pay special tribute to Mr. James Hutchison, Deputy Secretary of the Department of Natural Resources. He did an outstanding job in assembling a very effective staff and is to be congratulated for being the main driving force behind these rules and regulations.

Louisiana, once again has shown to the remainder of the country a rather farsighted approach to balancing the interest of man, environment and economics by having these rules and regulations as the first state to do so.

All of us want to especially thank you for your patience and assistance in formulating this plan and assure you that the plan will be implemented on time and managed in a very professional manner.

Sincerely,

WILLIAM C. HULS
Secretary

WCH:jmw

Enclosures

CCR 000040212

LOUISIANA STATE SENATE

LOUISIANA HOUSE OF REPRESENTATIVES

COMMITTEE ON NATURAL RESOURCES

Box 44012, Capitol Station
Baton Rouge, Louisiana 70804
Telephone: (504) 342-2350

June 5, 1979

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Mr. William C. Huls, Secretary
Department of Natural Resources
P. O. Box 44396
Baton Rouge, LA 70804

Dear Mr. Huls,

At this time, we would like to take the opportunity, as chairmen of the House and Senate Committees on Natural Resources, to formally notify the Department of Natural Resources that on May 30, 1979, the House and Senate Committees on Natural Resources unanimously approved with amendments the rules and regulations prepared by the Department of Natural Resources pursuant to Act 334 of the 1978 Regular Session of the Louisiana Legislature.

The amendments recommended by the committee were set forth in a letter to your office on May 30, 1979; an additional copy of the letter is attached for your information.

A suggestion was heard, and no objection voiced, that the Department of Natural Resources shall assume authority for the state hazardous waste management program created by Act 334, and applicable rules and regulations shall become effective on August 1, 1979.

Sincerely,

W. J. Tauzin
Chairman of the House Natural Resources Committee

Claude B. Duval
Chairman of the Senate Natural Resources Committee

WJT/CBD/lr

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CONTENTS

LIST OF ILLUSTRATIONS

Compliance schedule - remedial measures including an enforceable sequence of events, operations, or milestone actions leading to compliance with these rules and regulations and the Act.

Container - any enclosure in which a material can be stored, handled, transported, treated or disposed.

Contingency plan - an organized, planned, and coordinated course of action to be followed in the event of a fire, explosion, or discharge or release of waste into the environment which has the potential for endangering human health or the environment.

Corrosive waste - A waste subject to these regulations pursuant to provisions of Section 4.1.1 which, because of such properties as acidity or alkalinity would tend to weaken or erode a common construction material.

Department - Department of Natural Resources.

Disposal - the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters of the State.

Disposer - any person or agency who operates a treatment, storage and/or disposal site.

Emergency action - a situation in which there is no feasible alternative, other than the extraordinary actions authorized, to avoid loss of life, serious injury to human health or the environment, or severe damage to property.

Existing facilities - hazardous waste facilities in operation or under construction before the promulgation of the rules and regulations for the Hazardous Waste Program.

Facilities - a group of units (each an individual facility) on a site operated to treat, store, and/or dispose of hazardous waste.

Facility - each structure, pond, impoundment, or other unit of land, together with appurtenances used for the treatment, storage, and/or disposal of hazardous waste.

Floodplain - the lowland and relatively flat areas adjoining inland and coastal areas of the mainland and off-shore islands, including, at a minimum, areas subject to a one percent or greater chance of flooding in any given year.

Fresh-water aquifer — Those water bearing formations containing water with quantities of dissolved minerals less than 10,000 mg/l capable of yielding usable quantities of ground water to drinking water wells, pumps, springs or streams.

Generator - any person or government agency whose act or process produces hazardous waste identified or listed under Section 4.1.1.

Ground water - water in the saturated zone beneath the land surface.

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RULES AND REGULATIONS

1.0 AUTHORITY

Rules and regulations for a hazardous waste management system are hereby established by the Department of Natural Resources as mandated by Act 334 of the 1978 Legislature which is the State's response to P.L. 94-580, the Resource Conservation and Recovery Act of 1976 (RCRA).

2.0 PURPOSE

The purposes of these rules and regulations are threefold:

First: to protect the health and well-being of the people of the State of Louisiana and to prevent damage to property or to the environment by the improper management of hazardous waste;

Second: to provide incentives for the maximum recovery and reuse of substances in hazardous waste streams that is possible through the use of the most advanced technology;

Third: to carefully consider the impact of the program on the economic life of the State and to achieve a proper balance which protects the health of the citizens and the environment of the State while meeting the needs of industry.

3.0 DEFINITIONS

For all purposes of these rules and regulations the terms defined in this Section shall have the following meanings, unless the context of use clearly indicates otherwise.

Act - Act 334 of the 1978 Louisiana Legislature which established Sections 1101 - 1116 of Title 30 of the Louisiana Revised Statutes of 1950 and any subsequent amendments to these sections.

Barrier - a physical separation by natural or constructed means which prevents or restricts the penetration to adjacent areas of the harmful effects of hazardous wastes.

Basin - any uncovered area constructed to retain hazardous wastes.

Caretaker management - management by the Secretary, through an appointed manager to operate a hazardous waste facility during the time the permit of the facility is revoked.

Closure - the act of securing and rendering harmless a site which has been used to treat, store, or dispose of a hazardous waste so that it will pose no threat to human health or the environment.

Commercial facility - a hazardous waste treatment, storage or disposal facility which receives and treats, stores, or disposes of waste for a fee or other consideration.

Hazardous material - a material designated under Section 171.8 or Part 173 of Title 49 of the Code of Federal Regulations to be capable of posing an unreasonable risk to health, safety or property when transported.

Hazardous waste (Note: Also see definition of "waste.") - a solid waste or combination of solid wastes, subject to these regulations pursuant to provisions of Section 4.1.1 which, because of quantity, concentration, or physical, chemical, or infectious characteristics, 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 improperly treated, stored, transported, or disposed of, or otherwise managed.

Hazardous waste management - the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous wastes.

Health care waste - infectious or other hazardous waste resulting from operations of a health care facility.

Ignitable waste - A waste subject to these regulations pursuant to provisions of Section 4.1.1, of such properties as to constitute a potential fire hazard during its management.

Incinerator - an engineered device using controlled flame combustion to thermally decompose hazardous waste.

Incompatible waste - a waste unsuitable for commingling with another waste or material if the commingling might result in:

A. Generation of extreme heat or pressure;

B. Fire;

C. Explosion or violent reaction;

D. Formation of substances which are shock-sensitive, friction-sensitive, or which otherwise have the potential of reacting violently;

E. Formation of toxic dusts, mists, fumes, gases, or other chemicals; and

F. Volatilization of ignitable or toxic chemicals due to heat generation in such a manner that the likelihood of contamination of ground water, or escape of the substances into the environment, is increased; or

G. Any other similar reactions.

Infectious waste - a waste which has the potential to endanger humans or other living organisms by the communication of diseases caused by microorganisms and/or viruses.

Injection well - Those wells drilled to a strata below any fresh-water aquifer and permitted, or required to be permitted, by the Office of Conservation.

Lagoon - a shallow sound, channel or pond near, or communicating with, a larger body of water, either natural or man-made.

Landfarm - application of waste onto land and/or incorporation into the surface soil for the purpose of biological reduction and soil attenuation, including the use of such waste as a fertilizer or soil conditioner.

Landfill - a secured area in which hazardous waste is deposited for ultimate disposal and covered with soil.

Leachate - liquid that has percolated through or drained from hazardous waste or other man-emplaced materials and contains soluble, partially soluble, or miscible components removed from such waste.

Location - geographic area of the State.

Major modification - the alteration or physical change in size or capacity of an existing facility used for the storage, treatment or disposal of hazardous waste (by a factor of at least 30% for any single facility) and/or the addition of a waste treatment or disposal facility to an existing site.

Manifest - the form used for identifying the quantity, composition, and the origin, routing, and destination of hazardous waste during its transportation from the point of generation to the point of off-site disposal, treatment, or storage.

Monitoring - inspection and collection of data following a predesigned schedule and system on operational parameters of the facility or on the quality of the environment including the air, ground water, surface water, or soils.

"On-site" - on the same or geographically contiguous property. Two or more pieces of property which are geographically contiguous but which are divided by public or private right(s)-of-way or connected by a pipeline are considered a single site.

Operator - owner, licensee, manager, etc.....whoever has legal authority and responsibility for a facility which generates, transports, treats, stores, or disposes of any hazardous waste.

Person - an individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, state, municipality, commission, political subdivision of a State, an interstate body, or the Federal government or any agency of the Federal government.

Petition - a written request made to the Secretary.

Pond - a confined body of standing water usually smaller than a lake, either natural or man-made.

Proper - a qualifying adjective requiring consistency with any operating procedures published by the Department.

Public water supply well - a well for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Reactive waste - A waste subject to these regulations pursuant to provisions of Section 4.1.1 which is normally unstable or which may endanger life or property in the presence of other substances likely to be encountered in the management of waste.

Reclaimer - one who reclaims barrels or other containers for reuse by removing all hazardous residue of prior contents.

Resource recovery - recovery of useful material or energy from hazardous waste.

Run-off - that portion of precipitation that drains over land as surface flow.

Rural - all areas zoned rural or not zoned at all by a municipality or parish.

Site - land area and appurtenances, thereon and thereto used for the treatment, storage and/or disposal of hazardous waste.

Secretary - the Secretary of the Department of Natural Resources.

Sludge - any solid, semisolid or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effects.

Small quantities - quantities which, by quantity and degree of hazard, pose no threat to health or to the environment.

Solid waste - any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permit under Section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

Special waste - those wastes which pose minimum threat to life or property and which occur in very large quantities.

Spill - any unauthorized discharge or release of hazardous waste onto or into the land, air or water.

Standards - performance criteria established by Department of Natural Resources to govern the hazardous waste program.

Storage - the containment of hazardous waste for such time as may be permitted by regulations in such a manner as not to constitute disposal of hazardous waste.

Storage Facility - any environmentally sound facility used to store hazardous waste.

Surface Impoundments - uncovered ponds, pits, or lagoons.

Temporary Storage - storage of a generator's waste on-site for less than 90 days.

Toxic waste - a waste subject to these regulations pursuant to provisions of Section 4.1.1 which, by its chemical, biological or radiological properties, has the potential to endanger human health or other living organisms by means of acute or chronic adverse effects, including poisoning, mutagenic, teratogenic or carcinogenic effects.

"Transports" or "Transportation" - the movement of hazardous waste from the point of generation or storage to the point of treatment, storage, or disposal by any means of commercial or private transport. The term does not apply to the movement of hazardous wastes on the premises of a hazardous waste generator or on the premises of a permitted hazardous waste treatment, storage, or disposal facility.

Transport vehicle - a motor vehicle, aircraft, rail freight car, freight container, cargo tank, portable tank, or vessel used for the transportation of hazardous waste.

Treatment (when used in connection with hazardous waste) - any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste or so as to render such waste nonhazardous, safer for transport, amenable for recovery, amenable for storage, or reduced in volume. Such term includes any activity or processing designed to change the physical form or chemical composition of hazardous waste so as to render it nonhazardous.

Type of waste - waste description by category as classified in Appendix A.

Urban - all areas zoned by a municipality or parish other than those zoned rural.

Volatile waste - hydrocarbon or other waste, with vapor pressure greater than or equal to, 1.5 PSIA.

Waste - any material for which no use or reuse is intended and which is to be discarded. (Note: Feed streams to processes from which usable substances (products) are extracted, including use of waste as fuel producing energy, are not considered waste. Only the discarded substances are considered "waste" and subject to these regulations.)

4.0 SCOPE OF THE PROGRAM AND GENERAL PROVISIONS

4.1 Identification of Hazardous Waste

4.1.1 Criteria for Definition and Classification of Hazardous Wastes

A. The hazardous waste rules and regulations presented here shall apply specifically to materials identified in one of the following three categories:

Category I

Those known chemicals and process streams whose hazardous nature have been prescribed by prior determination and which are presented in either of the two lists of Appendix A.

Category II

Those special waste categories defined in Section 4.2.1 E, generally consisting of large volumes with consistent characteristics such as typical mining wastes.

Category III

Other wastes possessing any of the characteristics of the hazard classes listed in Appendix A and carrying a hazard rating of 2 or higher as specified therein. Hazard classes of concern for these wastes are ignitability, corrosivity, reactivity and toxicity. Analytical protocols and level of hazard classes are detailed in Appendix A. Other potential hazard classes, such as radioactivity and infectiousness, are controlled in other state programs (in the Office of Conservation and Department of Health and Human Resources, respectively).

4.2 Control of Wastes

4.2.1 Agency Responsibility — wastes generated, transported, treated, stored, or disposed in Louisiana are controlled by the State of Louisiana and assigned according to the appropriate statutes of the State of Louisiana as follows, and provided, that nothing contained herein shall limit the authority granted the Department of Natural Resources under the Act.

A. Department of Health and Human Resources — nonhazardous solid wastes treated, stored, and/or disposed in public and private solid waste facilities.

B. Office of Conservation, Department of Natural Resources — responsibilities defined as follows:

1) Regulated by Commissioner and subject to rules and regulations promulgated by the Office of Conservation:

a) Salt water injection wells, including related surface installations, drilling mud pits, and other areas associated with the exploration and production of oil and gas.

b) Injection wells, less related surface installations and areas, for industrial on-site or commerical disposal of hazardous wastes.

c) Radioactive Materials regulated by the Nuclear Energy Division, Office of Conservation.

C. Department of Public Safety -- transportation of wastes.

D. Department of Agriculture — waste pesticides, including pesticide containers, at point of application.

E. Department of Natural Resources, Hazardous Waste Program — responsibility defined as follows:

1) Regulated by the Department and subject to these rules and regulations:

a) Surface installations and areas, less injection wells below surface, associated with the disposal of wastes in injection wells.

b) All wastes identified as hazardous in Section 4.1.1 and not controlled by other agencies identified in 4.2.1 A, B, C, or D, which are generated, treated, stored, or disposed in Louisiana.

2) Exceptions to Otherwise Applicable Provisions of These Regulations

a) Wastes produced by any person who generates and disposes of small quantities on an infrequent basis which pose minimum threat to human health or to the environment. The Secretary reserves the right to make individual determinations under this section.

drums 90 days?

b) Temporary storage of hazardous wastes stored in an environmentally safe container by generator on-site not more than 90 days. Generators must be able to demonstrate the date storage commenced by proper marking of container or by other methods acceptable to the Secretary. The Secretary may make individual determinations under this section to exempt storage for a greater period of time when such storage poses no threat to public health or the environment.

c) Gasoline Service Stations are not subject to these rules and regulations except for quarterly reports of type and quantity of hazardous wastes generated, including waste oil, and the requirement that hazardous wastes be sent, properly manifested, to a permitted facility.

3) Provisions for Special Wastes

a) Special large volume wastes, for which consistent management practices are exercised, which pose minimum, if any, threat to life or property and which are derived from operations that are critical to the economy and

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well-being of the State are placed in a "Special Waste" category. These wastes are subject to special regulations and precautionary monitoring as provided in Section 9.0. The "Special Waste" category includes the following:

i) Spent bauxite (red mud) resulting from production of alumina;

ii) By-product gypsum and related wastes resulting from the production of phosphoric acid and phosphate fertilizers;

iii) Coal residue (bottom ash and slag, fly ash and flue-gas emission control waste) after use as a boiler fuel;

iv) Cement kiln dust;

v) Industrial waste water identified as hazardous in 4.1.1 in a NPDES treatment train when that train includes ponds, impoundments or similar facilities.

b) Provided, however, the application of these regulations to industrial waste water in an NPDES treatment train and coal residue wastes shall be subject to the following resolutory condition:

If the Federal Hazardous Waste Program does not include or is subsequently altered either by agency action, legislative mandate, or final judicial decision to remove industrial wastewater in an NPDES treatment train or coal residue wastes from the EPA regulations, then these regulations shall likewise cease to apply to wastes not included or so removed from the Federal program.

F. Provisions for Waste Regulated by Other Agencies Which Must Report to Department

1) The following waste must be reported as quantities of waste disposed:

a) Drilling mud and brine from production of oil and gas which are transported off-site to a disposer permitted under these regulations.

G. Provisions for Hazardous Waste Regulated by Other Agencies Which Must Report to Department

1) Health care wastes which are shipped off-site must be transported to a permitted site; wastes disposed on-site are controlled under a hospital licensing permit.

4.2.2 Petition to Classify a Waste Hazardous or Nonhazardous

A. Any person may petition the Secretary to declare a waste hazardous or for exemption of a waste from a given facility from control by these rules and regulations through submission of the following:

Should attempt this for our waters

1) Proof, including laboratory tests and methodology, that the wastes described in the quantities produced will not endanger life or property or damage the environment. Tests submitted for exemption of wastes in an NPDES treatment train must include samples of waste and sludge or soil at the bottom of ponds, impoundments, treatment facility and all other areas in the train.

2) Confirmatory tests undertaken by the Department through an independent laboratory.

B. The Secretary will act on this petition in accordance with authority vested in the Act.

4.2.3 Petition to Add to, or Delete from, the List of Special Wastes

A. Any person may petition the Secretary to add to, or delete from, the list of special wastes.

B. The petition must be accompanied by a complete description of the waste or operation and sufficient data for the Secretary's evaluation.

C. The Secretary will act on this petition in accordance with authority vested in the Act.

4.3 Judicial Review

4.3.1 A lawsuit may be filed to reverse any act or failure to act by the Secretary pursuant to these regulations or the Act in accordance with the provisions of the Administrative Procedures Act (R.S. 49:951 et seq.) or any other applicable provision of law.

5.0 HAZARDOUS WASTE MANAGEMENT SYSTEM

5.1 Administration

5.1.1 The Department of Natural Resources will administer these rules and regulations.

5.2 Permit System

5.2.1 Permits Must Be Secured By:

A. Operators of facilities which treat, store, and/or dispose of hazardous wastes controlled by this program as listed in 4.2.1 E, less listed exemptions.

B. All permit applications shall be submitted in triplicate on the form presented in 5.3.3 and 5.3.4.

5.2.2 Mandatory Provisions

A. Operation of existing facilities during Department action on the permit application is permitted in accordance with provisions of the Act, except that when the continued operation of an existing facility is determined by the Department to present danger to the public health and the environment, immediate enforcement actions shall be instituted pursuant to Section 10 of these regulations and of the Act.

B. No facility may be used to treat, store, or dispose of hazardous waste without a permit for the specific activities, procedures, and classification of waste handled as outlined in their permit, except as provided in "A" above, in Section 4.2.1 E. 2) a) and b), or in emergency situations under the direction of the Secretary.

C. No new facilities, or major modifications in existing facilities, for the treatment, storage, or disposal of hazardous wastes may be constructed without a permit.

D. No new facility, or major modification of an existing facility, may commence treatment, storage, or disposal of hazardous waste until the facility is complete and:

inspection & sign & start up

1) Certified by the Operator and an engineer licensed in Louisiana that the facility is complete and built in accordance with terms of the permit;

2) Inspected by the Department following a "request to make final inspection" by the Operator.

E. The Secretary, or his representative, upon presentation of proper credentials, shall have access, during working hours, to the premises of all facilities permitted and to all pertinent records, and shall have the right to take samples from any facility or waste stream covered under this permit.

5.2.3 Types of Authorization for Site Operation

A. Permits May be Issued as Follows:

1) Interim Permits -- may be issued by Secretary to the operator of an existing operation for a specified length of time while an application is being processed, or while a facility or the entire site is being modified to comply with permit requirements.

2) Standard Permits -- issued by the Secretary and valid for the operating life of site subject to the provisions of Section 5.2.8, 5.3.1(24), and 5.5.

B. Emergency action authorization -- temporary authorization may be granted by the Secretary as a result of an emergency situation for the following actions by an Operator:

1) Accept, treat, store or dispose of waste of a type or category not covered in the permit;

2) Accept for treatment, storage, or disposal of a waste not covered by a manifest;

3) Divert a waste shipment from one location to another without a manifest or prior permission from the generator; or

4) Other actions required to minimize potential damage due to the emergency situation.

5) The Secretary, in granting the Emergency action authorization, shall note, for the files, the justification for the authorization, the action taken, and the benefits realized.

Permits are valid for life of site

5.2.4 Duration of Permit

Standard permits are issued for the projected life of the site subject to the provisions of Section 5.2.8, 5.3.1(24) and 5.5.

5.2.5 Confidentiality

A. Information submitted as part of the permit application relating to proprietary processes or systems may be held confidential by the Secretary in response to following actions:

1) A request by the Operator with reference to the sections of the application affected, and

2) An indication of the degree of harm to the Operator if this information is made public, and

3) A determination by the Secretary that Operator's request meets requirements of the Act relating to confidentially of information.

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Everyone must be LNO!

5.2.6 Public Hearings

A. Public hearings shall be conducted in accordance with the Administrative Procedures Act (R.S. 49:951 et seq.).

5.2.7 Modification of Permits

A. Any proposed major modification of facility or a site, any change in wastes handled in either volume or composition, any other change in the site, facility, or operations which materially deviates from a permit or materially increases danger to the public health or the environment, and any operator or ownership change must be reported in writing to the Secretary prior to such an occurrence. The Secretary may approve an ownership change (transfer of permit) based on the following factors:

1) Assumption of liability for existing violations;

2) Financial responsibility; and

3) Managerial competence.

B. The Secretary will determine if such changes require a modification of the permit.

C. If a modification in the permit is required, the Secretary will inform the Operator by registered mail, return receipt requested, of such requirement, including, but not limited to:

1) Any specific information required relating to sections of application to be submitted; and

2) A schedule of compliance for the new or modified permit.

D. The Secretary shall distribute copies of such applications for modifications in accordance with Section 5.3.1 A. 7).

5.2.8 Suspension or Revocation of Permit

A. The Secretary may review a permit at any time and shall review a permit and inspect a facility and site in response to information submitted which, if valid, represents evidence of a violation and, after such review, may suspend or revoke a permit, in whole or in part, for cause including, but not limited to the following:

1) Violation of any term of the Permit, the applicable rules and regulations, or the Act;

2) Misrepresentation of any material fact in the permit application;

3) Willful failure to disclose all information requested in the permit application;

4) Information, including knowledge not available at time of Permit granting, which indicates that the operation poses a threat to human life or the environment; or

5) Any other cause, commission, or omission which is in violation of these regulations or the Act.

B. Procedure for suspension or for revocation of permit:

1) The Secretary shall give notice to the Operator, by registered mail, return receipt requested, of violation of the permit or Act, listing the specific violations.

2) If the Operator fails to comply with this notice by correcting the cited violations within 30 days from date of notice, the Secretary may issue an order requiring compliance within a specified time, or the Secretary may commence a civil action in the district court in the parish in which the violation occurred for appropriate relief, including a temporary or permanent injuction. If the operator fails to take corrective action within the time specified in the order, the Secretary shall assess a civil penalty, and the Secretary may suspend or revoke the permit, all pursuant to Section 10 of these regulations and the Act.

3) Reconsideration may be requested by the Operator in accordance with the provisions of Section 5.3.1 A. 28).

5.2.9 Compliance Schedule for Facilities Existing on the Effective Date of These Regulations

A. The Secretary, in granting time for an Operator to correct deficiences in facilities existing on the effective date of these regulations, shall set a schedule for achieving compliance.

B. Failure to attain target on final completion of work to achieve compliance on schedule shall be included in the reports required by the Secretary, together with the reasons why compliance has not been achieved;

C. If compliance has not been achieved on schedule, the Secretary may:

1) Extend the schedule time provided the Operator furnishes acceptable evidence that such an extension should be allowed; or,

2) Take enforcement action pursuant to these regulations and the Act.

5.2.10 Fees and Charges

A. A one-time application fee is charged to cover application, evaluation, and other related program costs. There is no fee for applications for minor modifications.

B. Permit Maintenance Fees are charged to cover costs of administration and other related program costs. (Details concerning permit maintenance fees are outlined in Section 5.7 "Program Financing.")

C. Calculation of Application Fees

1) The applicant is required to calculate his appropriate application fee according to the schedule included in the permit application form. Payment of this fee must be attached to the application.

2) Fee schedule:

Item	Fee
Site analysis — per acre site size	$ 250 [1]
Process and plan analysis	1,000
Facility analysis — per facility [2]	500
Management/financial analysis	1,000

NOTES: Fee equals total of the four items.

1) Up to 100 acres, no additional fee thereafter
2) Incinerator, landfarm, treatment pond, etc., each counted as a facility
3) Initial payments are limited to a total of $15,000.

D. Provision for collection of additional fees should application fees paid be less than program costs: .

Operators who paid an application fee of $15,000.00 will be assessed an additional fee equalling the deficit, apportioned equally, provided that no Operator pays more than the calculated fee in 5.2.10 C.

E. Provision for funds collected in excess of program costs:

Excess funds over program cost generated by this fee shall be credited to the following year's budget.

5.3 Permit Application Process

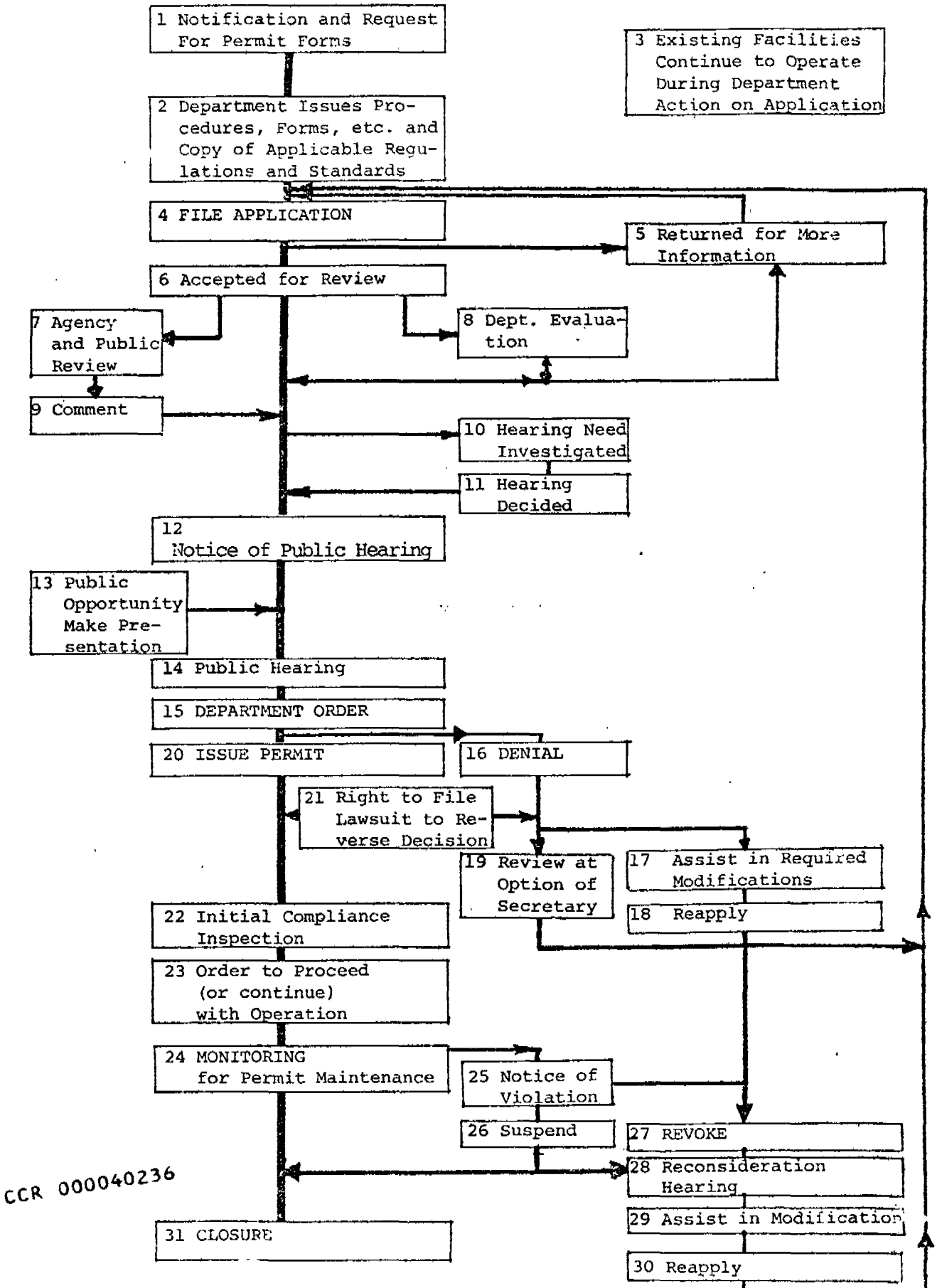
5.3.1 Process

A. The initial elements of the process involve the application for and granting of permits. The application process is illustrated in Figure 1 and includes the following steps which are referenced to the Figure:

1) Notification. All Operators of facilities which generate, transport, treat, store, or dispose of hazardous waste shall notify the Secretary that they are engaged in activities involving hazardous waste as defined in Section 4.1.1 within 90 days of promulgation of these rules and regulations. The format of this notification is illustrated in Figure 2. At the time of notification, request shall be made by the Operator for application forms.

Figure 1

PERMIT APPLICATION PROCESS



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Identification No._____
(For Department Use)

Figure 2

(TYPICAL)

NOTIFICATION FORM

Name and mailing address of Organization_____

_____ Zip:_____

Location of Operation_____

Description of Operation:

- ☐ Generator with no on-site disposal
- ☐ Generator with on-site disposal
- ☐ Transporter
- ☐ Disposer ☐ Treat ☐ Store ☐ Dispose

Phone Number( ) -

Description and estimated quantities of wastes handled:

I have personally examined and am familiar with the information submitted in the attached document, and I hereby certify under penalty of law that this information is true, accurate and complete to the best of my knowledge. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(Name of Company)

by:_____
Name and title

Date:_____

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DNR return application forms (30 days)

3) Within 30 days of receipt of notification, the Secretary will issue to each Operator requesting such information a copy of procedures governing permits, application forms, and applicable regulations and standards. The Secretary will assign a notification number indicating the type of operation (G, T, D for Generate, Transport, or Dispose), location (by planning district), and identification number (e.g. GD IV-16 —generate and dispose waste, located in Planning District IV, and #16 to apply in that district).

3) The Operator may continue to operate existing facilities during time required for Department to act on permit as provided in Section 5.2.2 A.

4) A complete application as outlined in 5.3.3 must be filed by each operator of a facility or group of facilities on a site that treats, stores, or disposes of hazardous wastes within 90 days of date application forms are mailed to operator. The Secretary may grant an extension of an additional period of 90 days upon request of operator when supported by valid reasons why an extension is needed.

90 days to file DNR ~~approval~~ applic

5) Applications which lack information necessary for proper evaluation will be returned to the Operator within 30 days of receipt of application with a list of additional data required and the timeframe for submission of additional data.

6) Applications which are complete will be accepted for review. Operators will be notified of such acceptance for review within 60 days of receipt of application.

60 days for DNR review & ~~approval~~

7) Upon acceptance of an application for review, the Secretary will distribute copies of the application (Part I) for review and comment to: the Public ((filed with local libraries or other public facility), published in a bulletin (see Section 5.7.7), and as an ad in a local newspaper), Louisiana Stream Control Commission, Louisiana Air Control Commission, Bureau of Health & Environmental Services of the Department of Health and Human Resources, Department of Wildlife and Fisheries, Office of Public Works of the Department of Transportation and Development, or the successors to any of the above, and to local governing authorities of any municipality and parish within whose territorial jurisdiction the facility or activity is located.

8) The Department evaluation will consider:

a) Purpose and use of facilities;

b) Operations and monitoring plan;

c) Capacity;

d) Closure;

e) Site suitability;

f) Financial responsibility;

g) Legal considerations;

h) Special considerations deemed necessary by the Secretary on a site specific basis; and

i) Local zoning ordinances.

30 day Public comment Period

9) Comment from the public and involved local, parish and state agencies will be reviewed. The Secretary may consider that agencies not commenting within 30 days from date ad is published in newspaper "have no objection to the proposed operation."

10) The Secretary will determine the necessity for a public hearing based on comments received and other available information.

11) Public Hearings will be held as follows:

BFI & Sediment Removed back in front of firing Squad.

a) A public hearing will be held for a permit for a commercial site.

b) For a permit for all other facilities, the Secretary will determine the necessity for a public hearing based on comments received and other available information.

12) Public Opportunity to Request Hearing — any person, within 30 days of date of publication of newspaper advertisement (item 7), may request the Secretary to consider the necessity to call for a public hearing, or if Secretary has already determined the need for a hearing, he may request the right to testify. The request must be in writing and shall contain the following information:

a) Name and affiliation, if any, of person making request;

b) Comments in support or objections to issuance of permit.

If the Secretary determines the objections warrant a public hearing the hearing will be scheduled and all concerned parties given written notice in accordance with provisions of the Administrative Procedures Act. If the Secretary determines that the objections presented do not raise genuine and pertinent issues, a written reply containing this determination will be sent to the person requesting the hearing.

13) Public Notice of a public hearing, should the Secretary determine a hearing is necessary, will be published in the Official Journal in the locality affected, included in the Department bulletin, and as an ad in the local newspaper no smaller than 3" x 5". The notice will include the following information.

a) Name of applicant;

b) Nature and location of activity, description and estimated quantities of waste handled;

c) Date and location of public hearing, and latest date written comments will be received; and

d) Name and telephone number of person to contact for additional information.

14) Public Hearing (if deemed necessary by Secretary) will be conducted in accordance with provisions of the Administrative Procedures Act (R.S. 49:951). All concerned persons may submit pertinent comments in writing or appear and testify.

determination on permit will be made within 150 days of after application is accepted for review § 5.3.1(6)

15) Order Issuing Permit or Denial — the Secretary shall issue the permit or denial after evaluation of all the information submitted and not later than 150 calendar days after application is accepted for review.

16) Denial — notice of denial will be sent to the operator by registered mail, return receipt requested. The notice will include a list of specific reasons for denial.

17) Assist in Required Modification — the Secretary will assist the Operator in the modification of the permit application or facility design or operation as follows:

a) Staff discussion with Operator, designing engineer, and other principals to discuss reasons for denial;

b) Reference to "state-of-the-art" procedures and methods which, if incorporated in the operation design, would allow permit reapplication;

c) Staff evaluation of objectionable features of application.

18) Reapply — the Secretary, based on staff evaluation of changes in application agreed to by Operator, may suggest that Operator resubmit application.

19) Review at Option of Secretary — the Secretary may require a review of the Denial based on new facts presented during the modification meetings. If review is not ordered, the denial stands.

20) Issue Permit — permits will be issued within 150 days of the date of acceptance of the permit application for review. The Secretary will assign a permit number corresponding to Notification Number for existing facilities (see 5.3.1 A. 2) followed by "P", and a similar system with prefix "NEW" assigned for new facilities.

21) Right to File Lawsuit to Reverse or Modify Decision —any person has the right to file a lawsuit to reverse the Secretary's action issuing or denying a permit in accordance with the provisions of Section 4.3 of these regulations. The lawsuit may seek to reverse the entire action or to modify sections of the action. The legal counsel of the Department of Natural Resources will represent the Secretary in such court proceedings.

B. The following are elements of the permit process concerning monitoring and enforcement procedures.

22) Initial Compliance Inspections shall be made as follows:

a) For existing facilities — made as part of permit application evaluation.

b) For new facilities ready to begin operation -made after "Request to Perform Initial Inspection" is submitted by the Operator to the Department to determine that new construction was built in conformity with conditions of the Permit by:

i) Certification from Operator and Supervising Engineer; and,

ii) Actual Department inspection and evaluation.

23) Order to Proceed, or Continue, With Operation shall be given as follows:

a) For existing facilities — the Secretary will issue a Notice to Continue Operations, thus certifying a standard permit, or issue a temporary permit for a specified length of time to continue, citing measures which must be taken to satisfy the terms of the permit. Specific target dates will be listed in the temporary permit and a quarterly report of compliance required;

b) For new facilities -- the Secretary will issue a notice permitting operation under a standard permit or a list of modifications required before an order to begin operation will be issued.

24) Monitoring for Compliance -- the Department will, from time to time, make inspections of all facilities used to treat, store, and dispose of hazardous wastes. The monitoring will determine compliance with terms of the permit. Based on this monitoring the Secretary has the right to:

a) Take no action, signifying permit remains in force;

b) Initiate appropriate enforcement actions pursuant to Section 10.0 of these regulations

25) Notice of Violation shall be given and action taken in accordance with the provisions of Section 5.2.8 B. 1) & 2).

26) Suspend the Permit — The Secretary may temporarily suspend the Operator's right to accept additional hazardous waste to treat, store, or dispose until violations are corrected. If violations are corrected to the satisfaction of the Secretary, the permit may be renewed.

27) Revoke the Permit — for major infractions of the terms of the permit the Secretary shall revoke the permit and require;

a) the Operator to cease accepting or contracting for hazardous waste to treat, store, or dispose;

b) the Operator to agree to a caretaker management of operations involving wastes which are being treated, stored, or have been disposed on-site. The caretaker management shall be selected by the Secretary from the following:

i) Operator's personnel acting under supervision of the Secretary or his designee;

ii) Independent management firm operating under Secretary's supervision; or

iii) State operation;

c) The total cost of the caretaker management shall be borne by the Operator, by revenues from operation, or by calling upon the closure fund set up for this purpose.

d) If the Operator does not voluntarily agree to the caretaker management, appropriate legal action shall be taken by the Secretary to institute the management operations to protect the public interest.

e) After exhausting all other remedies the Secretary shall request the Attorney General to secure court authority to close the site, using closure funds for this purpose.

28) Reconsideration Hearing

The Operator may request reconsideration of the suspension or revocation order. The request shall include the following information:

Forum requested:

a) Staff conference

b) Public hearing

29) Resubmit

Upon completion of required modification the Operator may submit a new or revised application for a permit.

30) Closure

The Operator will notify the Secretary in writing of intention to close and seal or abandon any storage or disposal facility stating the date of such proposed closure and certifying that closure method and specifications are in accordance with approved plan included in permit.

5.3.2 Permit Evaluation

A. To facilitate the evaluation of the initial flow of applications the Secretary may employ qualified firms. The firms will have the following duties:

1) Provide staff assistance to process the initial flow of applications;

2) Assist the Department in training a staff in permit evaluation.

B. The Operator will make available to the Department the following assistance, if requested:

1) Services of professional engineers responsible for the design of the facilities and of the Operator including:

a) Signed certification from designing engineers and/or equipment manufacturers that the designs, equipment used, and methods included satisfy the permit requirements and adhere to the standards governing the program;

b) Signed certification from the Operator that the administration and operation of the facility satisfies the permit requirements and the purposes of the Act;

c) Services required to explain the designs and operations to the Department staff;

d) Access to the site, if existing, and to pertinent information.

2) Other required assistance.

This is how they will process all the permits to be issued in a short period of time.

5.3.3 Permit Application

A. Application Form — Part I

The application form is illustrated in Figure 3 and is described in the following explanatory notes which are referenced to the form:

1) Date. Date of application.

2) Notification Number. Number assigned by Secretary to your notification.

3) Company Name.

4) Company Address. Note mailing address, Parish and Zip Code.

5) Name of Operator and Owner (if different from 3).

6) Address of Owner and Operator (if different from 4).

(TYPICAL FORM)

2. Notification Number _____

DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE FACILITIES PERMIT APPLICATION
Part I - General Information

3. Facility Name _____

4. Facility Address _____

	☐ Operator	☐ Owner (if different)
5. Name		
6. Address		
7. Contact		
8. Telephone		

9. Type of Operation:
Standard ☐ Hospital-Medical ☐
Experimental ☐ Public Treatment Works ☐

10. Purpose: Treat ☐ Store ☐ Dispose ☐

11. Size Status: Owned ☐ Optioned ☐ Leased ☐ Number of Years ☐

12. Operation Status: Existing ☐ Proposed ☐ Modification ☐ Under Construction ☐

13. Site Description: Attach following:

Site Map
Site and Facility Plan (diagramatic)

14. List existing environmental permits for specific site cited in this application.

15. List Other Company Hazardous Waste Operations (current or abandoned and permitted or unpermitted)

16. List all other states in which hazardous waste operations are conducted.

17. Zoning of Site: Zoned by Whom:

18. Comments:

CERTIFICATION: I have personally examined and am familiar with the information submitted in the attached document, and I hereby certify under penalty of law that this information is true, accurate and complete to the best of my knowledge. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

19. Signed: _____

Calculation of Fee:

Item 1)	Unit	Unit Cost	Amount $
Site size (acres)		$ 250	
Process and plan analysis		1,000	1,000
Number of facilities		500	
Management/financial			1,000

1) See 5.2.10 for explanation

7) Contact. Name of individual to be contacted concerning hazardous waste management.

8) Telephone. Office telephone number of contact.

9) Type of Operation.

10) Purpose. Check more than one block if applicable.

11) Status. Ownership status of existing site or land for proposed site.

12) Operation Status.

#1 requirement

13) Site Description. Attach site map indicating contours (1' in Coastal Zone, 5' elsewhere), property lines, houses, roads, wells, and other physical features within 2 miles of site in rural (unzoned) areas and 1/2 mile in urban (zoned) areas. Schematic plans of facilities required with Part I include location and identification of buildings, wells, lagoons, etc. (Detailed plans are required with Part II).

wells - include do they have wells?

14) List existing environmental permits for the site, if any. Permit number, date, expiration date, and issuing agency are required.

15) List other company hazardous waste operations in Louisiana (permitted or non-permitted and current or abandoned).

#2

16) List other states in which hazardous waste operations are or have been conducted.

17) Zoning of site, if applicable.

18) Comments.

19) Signature. By the Operator accompanied by his legal authority to sign for the company.

5.3.4 Supplementary Information — Part II

A. Responses and exhibits must be identified with the following numbering system to facilitate Department evaluation.

1) Site Master Plan ? what is this - ???

2) Site layout and facility design

#3

a) Site plan illustrating property lines; location of: on-site transportation and material movement; storage, treatment, and disposal facilities; utilities; drainage; security facilities; buildings and other physical facilities.

b) When phased construction is planned the plans must indicate each phase and an accompanying schedule of construction as planned.

Scholarship landfill

c) Illustrate all cut-and-fill plans and locate, on-site or off-site, liner and cover material to be used, if applicable.

d) Area topographical map indicating interruption of natural features affecting off-site drainage patterns, transportation, utilities, and location of effluent discharges.

(3) Site Geology

a) The Secretary requires that the following be submitted:

i) Geologist's or licensed engineer's, specializing in geotechnical engineering, certification that the ground and subsurface conditions at the site are acceptable for the planned purposes of the facility;

ii) Submission of following data:

Surface and subsurface geological features including active faults of area extending at least 1,000 feet beyond property line;

Soil types and conditions to depth of 30' below lowest elevation of planned disposal cells for burial, landfill and treatment facility ("Special Waste" facilities excluded) based on test holes at 200' intervals (or greater or less intervals if acceptable to Secretary);

Logs of test holes and wells, including soil samples for each pertinent strata analyzed for soil type, porosity, permeability, and other pertinent characteristics; and map and cross section of each strata to depth of 1,000 feet;

Map and cross sections indicating the extent of fresh-water sands, and the degree of isolation of these aquifers from waste sources by confining layers of clay, location of water wells, springs, and other drinking, irrigation, or fresh-water uses.

(4) Site Hydrology

a) Map of surface flow through site and map of the potentiometric surface for aquifers within 100 feet of lowest elevation of disposal cells, or other facilities containing hazardous waste, from 1,000 feet upstream to 1,000 feet downstream;

b) Map of all water wells, operating or abandoned, within the site and within 2,000 feet of the site perimeter and all public water wells within 2 miles including:

i) Depth of wells;

ii) Amount of pumpage;

iii) Water level depth (annual maximum and minimum);

iv) Water analysis from water well nearest the disposal site.

c) Travel times in feet/day for normal drainage of each natural surface drainage system within 1,000 feet of the property.

d) Flood hazard map of the area (Corps of Engineers or Department of Housing and Urban Development).

e) Climate Factors

i) Maximum rainfall in 24 hours during last 25 years

ii) Maximum, minimum, and average temperature/ month for past 10 years

iii) Impact of previous hurricanes on area

iv) Comparison of rainfall and evapotranspiration rates

v) Prevailing wind direction (provide wind rose)

(5) Environmental Factors

a) List all known historical sites, recreational areas, archaeological sites, wildlife areas, swamps and marshes, habitat for endangered species and other sensitive ecological areas within 1000' of the site.

b) Indicate measures planned to protect such areas listed from detrimental impact from the operation of the proposed facility.

(6) Geographical Factors

a) For an area within two miles of the proposed site in a location which is not zoned and one-half mile of the site in a location which is zoned, provide the following information:

i) Map or aerial photograph showing all buildings identified as residential, commercial, industrial, or public (schools, hospitals, libraries, etc.)

ii) Population

iii) Principal livelihood of residents for facilities located in rural areas

iv) Land use

v) Road net, with average daily traffic count and route of trucks which will transport to facility;

7) Operations Plan

a) Classification of wastes to be handled and estimated quantities

b) Methods and processes utilized

i) Facility capacity for each disposal method

ii) Detailed description of each process or method

c) Storage and disposal procedures

i) Plans for receipt, checking, processing, segregation of incompatible wastes, and odor control;

ii) Life of each facility based on projected use;

d) Monitoring Procedures

i) Monitoring and recording of incoming wastes

ii) Leachate control and monitoring system

iii) Security system

iv) System for monitoring water and air pollution affecting area outside site;

e) Administrative Procedures

i) Hours of operation/day and days/week;

ii) Security procedures including: entry control, hours manned, lighting, and other procedures to prevent unauthorized entry;

iii) Procedures planned and equipment available in case of breakdowns, inclement weather, or other abnormal conditions;

iv) Describe recordkeeping procedures, types of records to be kept, and use of the records by management to control the operation.

v) List general qualifications of key operating positions.

8) Closure Plans

a) Detail the elements of the closure plan, including:

General description of the plan, including estimated date of proposed closure or schedule of levels of closure;

Administrative and monitoring procedures;

i) Site security plans;

ii) Inspection plans and procedures;

iii) Routine and emergency maintenance plans;

iv) Monitoring plans, including description of installations and data gathering procedures for leachate control, run-off, gas generation, etc.;

v) Description of recordkeeping procedures, including scope, type, and location kept.

b) Post-closure Plans

Describe potential long-term use of the site, including:

i) Use suitability;

ii) Methods planned to insure safety of site after closure;

iii) Plans for converting the site to its suitable use if such plans have been developed;

iv) Plans for long-term monitoring;

v) Plans for closed site ownership and responsibility.

c) Definitive closure plans as required in this section may be omitted from the application for those facilities for which technology is not yet developed provided a plan for a research or demonstration project which will provide needed technology is submitted. The omission and alternate submission must be approved by the Secretary. The Secretary may require a performance bond for the closure system if that system developed by the research specifies new or untested procedures.

9) Financial Responsibility

a) Financial structure of operating unit, including:

i) Capital structure and principal ownership;

ii) Liability coverage:

—Personal injury, employees and public

—Property damage

10) Special Requirements

Secretary may require additional provisions for special procedures or processes or for specific information for a supplementary environmental analysis.

5.3.5 Submission Requirements

A. Standard permit, new or existing operation — Parts I and II

1) Operators of existing facilities are not required to submit information specified in Section 5.3.4 A. 3), 4), 5), and 6). For these existing facilities the operator shall furnish the following: an aerial view of the impacted area and soil classification around surface impoundments, landfills and burial sites. The Secretary shall require the information specified in Section 5.3.4 A. 3), 4), 5), and 6) involving site geology, site hydrology, environment, or geography where such information can be practicably obtained.

5.4 Manifest System

5.4.1 Purpose

The manifest is the tracking document of the "cradle-to-the-grave" management system mandated in the Act.

5.4.2 Manifest Forms

A. A manifest form containing the information required by these regulations shall be used for all shipments of hazardous waste under this regulation and shall be completed in full by the proper parties:

B. Sample manifest forms will be available upon request from the Department.

5.4.3 Manifest Document Flow (see Figure 4)

A. Generator initiates the manifest (original and four copies) by filling out his portion and the name and address of the treatment, storage, or disposal facility. After the transporter fills out and signs his portion, the generator retains one copy for his files and the original and three copies accompany the hazardous waste shipment.

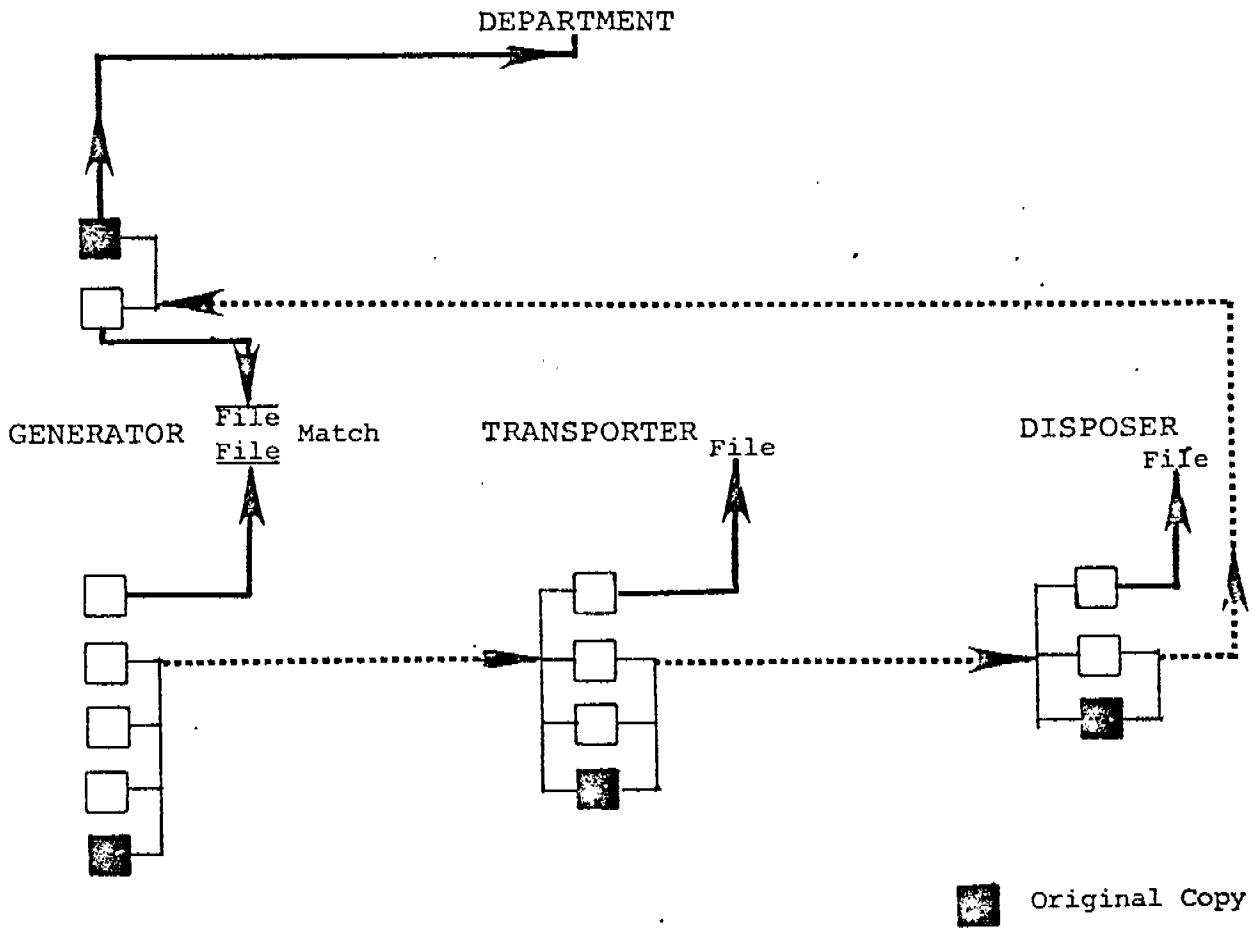
B. Transporter secures hazardous waste facility Operator's signature upon delivery of waste, retains one copy for his files and gives the original and two copies to the hazardous waste facility operator.

C. Hazardous waste facility operator fills out his portion, retains a copy for his files and mails the original and final copy to the generator no later than the next working day.

D. Generator files the copy and mails the final completed original to the Department no later than 7 days after receiving the completed manifest from hazardous waste facility operator.

Figure 4

MANIFEST SYSTEM
DOCUMENT FLOW CHART



E. Generator, transporter and hazardous waste facility operator shall maintain file copies of manifest for a period not less than two years for Department inspection.

F. Generator, transporter and hazardous waste facility operator each shall submit a quarterly report to the Department including manifest numbers and total quantity by type of waste handled. Reports are due no later than 15 days after the end of each quarter. April 15, July 15, October 15, and January 15.

#11

G. The signing of the manifest by the generator, transporter, or hazardous waste facility operator certifies that to the best of his knowledge his portion of the manifest is accurately and correctly filled out; and the generator further certifies that the material is properly packaged, marked and labelled and are in proper container for transportation.

H. Except as provided in Section 5.4.5 A., and Section 5.4.6 C., generator, transporter, and hazardous waste facility operators are required to report to the Department any irregularities between the wastes actually received and the waste described on the manifest, or any other irregularities, within 5 days.

I. Additional generator responsibilities for rail shipments.

1) If the hazardous waste is transported by rail, the generator will additionally fill out the transporter section, attach the original and two copies to the rail car in an approved fashion, retain one copy for his files, and mail the transporter copy to the appropriate railroad company.

2) The generator will supply the railroad company with the necessary emergency response information and the manifest serial number, which are to be included on the waybill.

5.4.4 Procedures Governing the Generator's Portion of the Manifest System

A. All generators shall prepare a manifest for each shipment of hazardous wastes except as follows:

1) Generators exempt pursuant to provisions of Section 4.2.1 E. 2) and 3);

on site disposal is exempt from manifest, or if waste is "special waste"

2) Generators who transport wastes to on-site disposal sites;

3) Generators who transport wastes to the disposal facility by pipeline.

B. Transporters for generators who are exempted under Section 4.2.1 E. 2) and 3) are responsible for originating the manifest and completing the generator's portion thereof.

2

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C. A single manifest may be used for multiple loads of hazardous waste, provided that;

1) All loads of hazardous waste are shipped on the same day from the same location by the same transporter to the same permitted facility.

2) All loads are accompanied by a copy of the manifest and an emergency information card as required by 5.4.4.D.

3) The hazardous waste in all loads has the same shipping description and hazard class.

4) The total quantity of each load is specified and is initialed by the generator and transporter.

5) The operator of the transport vehicle for each load is listed on the manifest.

#12 D. Generators must provide a Chem-Card or similar emergency card or a statement concerning the hazardous nature of the material and general guidelines for an emergency situation involving this hazardous waste to accompany the manifest on shipments and loads.

#13 E. In naming a hazardous waste, a generator shall:

1) Use the Department of Transportation (DOT) proper shipping name (identified in 49 CFR 172);

2) If the DOT proper shipping name is "NOT OTHERWISE SPECIFIED" (NOS), then the classification system of section 4.1 shall be used after the DOT proper shipping name, "NOS".

F. If the hazardous waste is to be transported out of State, the generator will send a copy of the manifest to the appropriate regulatory agency of the foreign country or state having jurisdiction over the designated facility within one working day of the shipping date. The generator will be responsible for receiving the completed, signed manifest from the out-of-state hazardous waste facility.

#14 G. Generators must get written confirmation of acceptability of the hazardous waste from the operator of the hazardous waste facility before shipping the hazardous waste.

5.4.5 Procedures Governing the Transporter's Portion of the Manifest System

A. Transporters will pick up and ship only those wastes which are properly prepared for shipment (see Section 6.2), are accompanied by a properly filled out manifest, and appear to be the hazardous waste described on the manifest. If the transporter notices any irregularities or rejects a shipment for any reason he must notify the Department as soon as possible, but no later than the next working day.

B. Transporters who pick up waste from generators exempted by section 4.2.1 E. 2) and 3) or are in a "Special Waste" category are responsible for the generator manifest requirements of this section. Transporter may use a single manifest for shipments containing waste from several generators if all generators are listed, all wastes are accurately described, wastes transported in same shipment are compatible, and labeled as required in this section and Section 5.4.4 D. and 6.2.

C. If a shipment of hazardous waste is rejected by the treatment, storage, or disposal facility, the transporter shall return it to the generator, notify the Department of the action immediately and give reasons to his best understanding why the waste was rejected.

5.4.6 Procedures Governing the Hazardous Waste Facilitiy's Portion of the Manifest System

A. The operator of a hazardous waste facility accepting out-of-state wastes is responsible for all the requirements of this section, including requiring the generator to initiate a manifest.

B. Only those hazardous wastes which are properly manifested and properly shipped are to be accepted by the operator of a hazardous waste facility.

C. If any hazardous waste is rejected by the operator of a hazardous waste facility, the operator of that facility is to notify the Department immediately and give reasons why the waste was rejected.

D. The Operator of any treatment, storage, and disposal facility will assume all the responsibilities of a generator established by these regulations for any hazardous waste transported from his facility to another permitted facility, except for waste rejected under Section 5.4.6 C.

5.4.7 Disposal of Hazardous Waste Without Manifest

No facility shall accept any hazardous waste delivered from off-site for treatment, storage, or disposal unless such waste was delivered with a properly completed manifest as required by these regulations.

5.4.8 Transportation of Hazardous Waste Without Manifest

The transportation of any hazardous wastes without a manifest shall be deemed a violation of these regulations and the Act.

5.5 Surveillance and Monitoring Procedure

5.5.1 Purpose

A. To insure the protection of life and prevent damage to property and/or environment from improper transportation, treatment, storage, or disposal of hazardous wastes.

B. To work with the generators, transporters, and disposers to achieve the purposes of the Act.

5.5.2 Procedures

A. Primary responsibility for the proper handling of hazardous wastes is assumed by the industry operating under these rules and regulations and cooperating with the Department in meeting the purposes of the Act.

B. Department surveillance and monitoring includes the following:

1) Analysis of manifests and manifest reports to determine that all wastes generated are disposed in permitted sites and that the proper disposal method has been used;

2) Periodic inspections required by the permit maintenance program to insure that facilities treating, storing, and disposing hazardous wastes are operated in conformity with the terms of the permit and these rules and regulations;

3) Spot inspections and sampling by the travelling laboratory and the analytical and inspection team;

4) A systematic program to conduct or, to require, investigations and recording of the groundwater, leachate, and air monitoring systems;

5) Response to citizen complaints and suggestions concerning operation of the system;

6) Such other procedures as may be deemed necessary by the Secretary.

C. Violations discovered through such surveillance and monitoring shall be the subject of enforcement actions pursuant to Section 10.3 of these regulations

5.6 Emergency Response System

5.6.1 Purpose

A. To provide for control and clean-up of accidental spills and other emergency situations involving hazardous wastes resulting from a violation of a requirement of these regulations or the Act.

5.6.2 Program Description

A. The Department, working with the Department of Public Safety, will establish the following program:

1) Emergency Response equipment and teams located in strategic locations.

2) Emergency Response Plan involving a communication system, cooperation with local police and fire departments, training program based, as a minimum, on the "emergency information card", and an operations plan for each class of emergency situation.

B. The Emergency Response Program will respond to all in-transit accidents and spills, and respond to on-site emergencies when called by the Operator or in accordance with provisions of Section 6.4.

C. Program funding shall receive initial seed funds from the Department.

5.7. Program Financing

5.7.1 Self Generated Funds

The Act provides for the hazardous waste program to be financed from self-generated funds.

5.7.2 Program Costs

A. Program management, including administration, issuance of permits, operation of the permit maintenance system, the manifest system, surveillance and monitoring (including necessary laboratory and analytical services), and similar costs;

B. Emergency Response System;

5.7.3 Source of Funds

A. Permit application fees — a one-time charge for permit evaluation. (see Section 5.2.10)

B. Permit Maintenance Fee — an annual fee based on a charge per ton or acre of waste treated, stored, or disposed to provide funds for administration of the program.

billed at end of year

5.7.4 Calculation of Fees

A. Administration of the program — fees will be billed at end of year following permit maintenance inspection. Fee is based on cost of program paid by Operators who treat, store, or dispose of hazardous waste according to a formula developed as follows:

1) formula shall be developed no later than 3 months prior to end of budget year (FY 79-80);

2) formula shall be based on a completed data base including: number of permits, volume of wastes handled by class, number and size of facilities, and other pertinent factors;

3) formula shall be developed by a committee appointed by the Secretary with members representing the following: Louisiana Chemical Association, Mid-Continent Oil and Gas Association, commercial disposers, and each of the "Special Wastes" categories listed in 4.2.1 E. 3);

4) formula developed by the committee shall be approved by the Secretary.

5.7.5 Annual Adjustment of Fees

The Permit Maintenance Fee, to provide funds for administration of the program, will be adjusted annually to provide a total equal to the total actual costs incurred for such services.

5.7.6 Public Accounting

The Secretary will submit to each company paying fees into the program a summary of the Department Hazardous Waste Management Program budget. The budget summary will be mailed annually at the time it is submitted for the Legislative budget process. A meeting affording those who pay into the program an opportunity to review the budget with Department officials will be scheduled at this time.

5.7.7 Public Reporting

A bulletin will be issued periodically by the Department and mailed to a subscription list including public officials, industries who operate under Department permits, and interested individuals and organizations who request that their name be added to the list. A charge will be made to cover cost of printing and distribution. The bulletin will contain information concerning permit applications, actions by the Secretary on permits, suspension and revocation orders, enforcement actions, and other information of public interest concerning the hazardous waste program.

5.7.8 Recovery of Damages Resulting From a Violation of These Regulations or the Act

In any case where damages occur as a result of a violation of any requirement of the Act or these regulations, the Secretary shall, as a prerequisite to the filing of suit pursuant to R.S. 30:1113 B(1), determine the damages sustained by the State. The measure of damages as determined by the Secretary shall be the costs of restoring the affected area to its condition as it existed before the violation occurred in order to remove the hazard to the health and safety of the public or the environment caused by the violation, plus the costs of all investigations made by the State in connection with the violation. The Secretary shall inform the violator of the amount claimed by the State as damages under this Section. If amicable resolution of the amount of damages claimed by the State is not achieved, the Secretary shall institute court proceedings pursuant to R.S. 30:1113 B(1) to recover damages.

5.8 Public Information Service

5.8.1 A Local Government Liaison and Public Response Section will be established to respond to citizen complaints and suggestions and to insure that all pertinent information concerning hazardous waste operations is adequately and promptly disseminated.

6.0 STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

6.1 Recordkeeping and Reporting

6.1.1 Generators shall comply with the requirements of Section 5.4.

6.1.2 Generators shall notify the Department, according to Section 5.3.1 A. 1), listing the type and estimated quantities of hazardous waste they presently handle and shall notify the Department of any significant changes or of any new hazardous waste they plan to handle.

6.1.3 Generators who generate and dispose, treat, or store their hazardous waste on-site shall submit quarterly reports to the Department, including total quantity, by type, of waste handled and how that waste was disposed, treated, or stored.

6.2 Packaging and Labelling of Shipment of Hazardous Wastes to Off-Site Locations

6.2.1 Every generator shall mark and label each shipment of hazardous waste in accordance with the Department of Transportation regulations on hazardous materials, 49 CFR 172 and 173.

6.2.2 Every generator shall mark each container of waste with the following:

"Controlled Waste" — Federal and State Law Prohibits Improper Disposal.

Generator ID code _____

Manifest Serial Number _____

6.3 Use and Reuse of Containers

6.3.1 A container may be used for the shipment of hazardous waste only to the extent permitted under Title 49 of the Code of Federal Regulations.

6.3.2 A package marked "NRC" or "STC" according to the specifications requirements in Part 178 of title 49 of the Code of Federal Regulations may be reused only one time for the shipment of hazardous waste.

6.4 Spills

A. Any spill of hazardous waste which could possibly endanger health or adversely affect the environment off-site shall be reported to the Department within 24 hours.

B. If a spill occurs on the site of a generator or storage, treatment, or disposal facility and that spill could possibly endanger the public health or affect the environment off-site, the Department and the Department of Public Safety have the authority to enter the site and investigate the spill. It is the responsibility of the Operator to report spills of this nature to the Department of Public Safety as soon as possible.

6.5 Every generator shall comply with the provisions of Section 5.4 et seq. of these regulations relating to the use of a manifest for all shipments of hazardous waste.

6.6 Except as provided in Section 4.2.1 E. 2) b), no generator shall treat, store or dispose of any hazardous waste except at a hazardous waste treatment, storage or disposal facility permitted under these regulations.

7.0 STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTES

7.1 General

7.1.1 No person may offer for transportation or transport shipments originating or terminating in the State of Louisiana any quantity of hazardous waste, except in accordance with 7.0.

7.1.2 These rules and regulations do not apply to:

A. Any person or Federal or State agency that transports hazardous waste on the site of a hazardous waste operator or permitted hazardous waste management facility, or generator of hazardous waste; or

B. Any person who offers for transportation or transports household refuse or household septic tank pumping generated at the site at which the material is offered, if those materials are not offered for transportation with any other hazardous waste.

7.2 Transport Vehicles; Marking

7.2.1 No person may transport a hazardous waste unless the transport vehicle is marked to display:

A. The name or trademark of the carrier operating the vehicle;

B. The city or place in which the carrier has its principal office or in which the vehicle is customarily based; and

C. The name of the person operating the vehicle, if the name of a person other than the operating carrier appears on the vehicle, with the words "operated by" immediately preceding the information required by subparagraphs A. and B. of this paragraph.

1) Other identifying information may be displayed on the vehicle if it is not inconsistent with the information required by this paragraph.

7.2.2 The marking required by 7.2.1 must:

A. Appear on both sides of the vehicle;

B. Be in letters that contrast sharply in color with the background;

C. Be readily legible during daylight hours from a distance of at least 50 feet while the vehicle is stationary; and

D. Be maintained in a manner that retains the legibility required by this paragraph.

1) The marking may be a removable device.

7.3 Placarding

7.3.1 A transporter may not move a transport vehicle containing hazardous waste which is also a hazardous material unless the vehicle is placarded in accordance with Subpart F of Part 172 of Title 49 of the Code of Federal Regulations or such other regulations as may be prescribed by the Secretary of Public Safety for placarding vehicles carrying hazardous material.

7.4 Place of Delivery

7.4.1 No person may deliver a hazardous waste to a place other than the permitted facility shown on the manifest. If a hazardous waste cannot be delivered to a permitted facility, the transporter shall comply with 5.4.5 C.

7.5 Identification Code

7.5.1 Each person who transports or intends to transport hazardous wastes in this State shall obtain an identification code from the Department of Public Safety and shall place that number on all shipping papers for hazardous waste to be transported by that person.

7.6 Recordkeeping

7.6.1 Each transporter shall retain a copy of the manifest as specified in Section 5.4.3, for each transportation of hazardous waste that it makes, for a period of at least 2 years from either the date of transfer of the hazardous waste to another transporter or delivery of the waste to a permitted facility, as the case may be.

7.7. Financial Responsibility

7.7.1 Each transporter of hazardous wastes shall acquire continuous coverage for all of its transport vehicles regulated by these rules and regulations at a minimum coverage of $300,000.00 vehicle public liability and $200,000.00 vehicle property damage.

7.7.2 The financial responsibility required by this section may be established by any one or a combination of the following:

A. Evidence of liability insurance; or

B. Self-insurance, but the level of self-insurance may not be more than 20 percent of equity; or

C. Other evidence of financial responsibility acceptable to the Secretary of Public Safety.

7.8 Shipper Marking Requirements

7.8.1 Each person who offers any hazardous waste for transportation shall, in addition to complying with any other applicable law or regulation, mark each package of that waste with the following:

"Controlled Waste" — Federal and State Law Prohibits Improper Disposal.

Generator I. D. code _____

Manifest Serial Number _____

7.8.2 Every generator shall mark and label each shipment of hazardous waste in accordance with the Department of Transportation regulations on hazardous materials, 49 CFR 172 and 173.

7.9 Acceptance and Transportation

7.9.1 A transporter shall not accept a shipment of hazardous waste without a manifest signed by the generator in accordance with Section 5.4.

7.9.2 A transporter shall not transport a shipment of hazardous waste without signing the manifest acknowledging acceptance of the shipment, except as provided in Section 5.4.3 I.

7.9.3 If a shipment of hazardous waste is transported by more than one transporter, no subsequent transporter shall accept for transport or transport the shipment without a manifest, or shipping document that contains the information required to be on the manifest.

7.9.4 A transporter shall not transport a shipment of hazardous waste in containers not properly labeled or marked in accordance with Section 7.8.

7.9.5 If the label is lost or detached, the transporter shall replace it, based on the information taken from the manifest for the shipment.

7.9.6 A transporter shall not transport a container that is leaking or appears to be damaged, except to the nearest place where the transport vehicle can be safely positioned without unnecessarily endangering other transport vehicles or the environment. The transporter will then make the repairs necessary to remedy the unsafe condition.

7.9.7 A transporter shall not accept or consolidate hazardous wastes consisting of a material or mixture of materials that is prohibited under Section 173.21 of Title 49 of the Code of Federal Regulations.

7.10 Compliance With the Manifest

7.10.1 Each transporter shall assure that a copy of the manifest accompanies each shipment of hazardous waste at all times during the shipment.

7.10.2 If the hazardous waste shipment is transferred between different modes (air, rail, highway, or water) or between different transporters using the air or highway mode, each transporter shall sign the manifest before transporting the hazardous waste.

7.10.3 Each transporter shall comply with Section 5.4.

7.11 Delivery to Designated Permitted Facility

7.11.1 The transporter shall deliver the entire amount of hazardous waste accepted from a generator or other transporter to a permitted facility designated by the generator on the manifest.

7.11.2 If the transporter removes the hazardous waste from a transport vehicle for the purpose of blending, mixing, treating, or storing, that blending mixing, treating, or storing shall be done at a permitted facility.

7.11.3 If hazardous wastes from different generators or separate wastes from the same generator become mixed after being accepted by the transporter, the transporter shall comply with applicable Federal or State generator standards unless the transporter shows that the information on the manifests still identifies the hazardous waste.

7.11.4 The transporter shall, upon delivering the hazardous waste to the designated permitted facility, obtain the signature of an authorized agent of the facility on the manifest or delivery document certifying delivery, or provide equivalent documentation acceptable to the Secretary as may be necessary. For rail shipments documentation of delivery acceptable to the Department may be substituted and shall be provided on demand.

7.12 Spills

7.12.1 Owners of the material spilled are to be considered generators for the purposes of Section 5.0, unless the spill is an emergency situation. In an emergency situation, all generators reporting and manifest requirements of these rules and regulations are suspended. However, a full report on the spill, including: location of spill, type of material spilled, cause of spill, amount of spilled material, damages incurred, and how the spilled material was cleaned-up, transported, and disposed, shall be forwarded to the Department of Public Safety no later than 20 days following the spill.

7.12.2 Whenever a spill of hazardous materials or hazardous waste occurs that requires immediate removal to protect human health or the environment, the transporter shall immediately telephone and furnish the following:

A. Name of the person reporting the spill and phone number for that person.

B. Name and address of the transporter.

C. Name and address of the generator.

D. Date, time, and place of the spill.

E. Any pollution of land, air, public water supply, or other water, if known.

F. Description of the incident.

G. Classification, name, and amount of hazardous waste, to the extent available.

H. Extent of personal injuries, if any.

7.12.3 The transporter shall clean-up all of the spilled waste or take such action as may be required pursuant to the Emergency Response System prescribed in 5.6 so that the spilled waste no longer presents a hazard to human health or the environment.

7.13 Use and Reuse of Containers

7.13.1 A container may be used for the shipment of hazardous waste only to the extent permitted under Title 49 of the Code of Federal Regulations. A permitted container may be reused only as provided in 7.13.2.

7.13.2 A package marked "NRC" or STC" according to the specification requirements in Part 178 of Title 49 of the Code of Federal Regulations may be reused only one time for the shipment of hazardous wastes, under the following conditions:

A. The material is packaged, and each package is marked and labelled in accordance with Part 173 of Title 49 of the Code of Federal Regulations.

B. Transportation is performed by highway only.

C. The package is not offered for transportation less than 24 hours after it is finally closed for transportation and is inspected for leakage immediately before being offered for transportation.

D. The package is loaded by the shipper and unloaded by the consignee, unless the motor carrier is a private or contract carrier.

7.14 Hazardous Waste That Is Also a Hazardous Material

7.14.1 If a hazardous waste, as defined in these rules and regulations or regulations of the Environmental Protection Agency, also meets the definition of hazardous material in Section 171.8 and Part 173 of Title 49 of the Code of Federal Regulations, the following regulations of the Department of Transportation in Titles 46 and 49 of the Code of Federal Regulations also apply to its transportation:

A. Title 46, Parts 30-40, Tank Vessels.

B. Title 46, Part 64, Marine Portable Tanks.

C. Title 46, Part 98, Bulk Cargoes.

D. Title 46, Part 148, Solids in Bulk.

E. Title 46, Part 151, Unmanned Barges.

F. Title 49, Part 171, General Information, etc.

G. Title 49, Part 174, Carriage by Rail.

H. Title 49, Part 175, Carriage by Aircraft.

I. Title 49, Part 176, Carriage by Vessel.

J. Title 49, Part 177, Carriage by Public Highway.

K. All other applicable federal laws or regulations.

8.0 STANDARDS APPLICABLE TO FACILITIES WHICH TREAT, STORE, AND/OR DISPOSE OF HAZARDOUS WASTES

8.1 Purpose

8.1.1 The standards in this section define performance required of facilities which treat, store, or dispose of hazardous wastes.

8.2 Scope of Standards

8.2.1 All facilities which treat, store, and dispose of hazardous wastes, must be constructed and operated to comply with the standards outlined in these regulations except for facilities for "Special Wastes", which must comply with standards outlined in 9.0.

8.2.2 Except as specifically authorized by the terms and conditions of a permit issued under these rules and regulations, the construction and operation of a facility to treat, store, or dispose of hazardous waste in violation of the standards established by this section shall be a violation of the Act enforceable pursuant to Section 10.0 of these rules and regulations and Section 1113 of Act 334.

8.3 Site Requirements

8.3.1. Geology

A. Topographic relief — low, or provide means to guard against slides, slumping, or erosion.

B. Soils — natural stable soils of low permeability over entire area, or other means acceptable to Secretary which provides a barrier to penetration of surface spills or accumulations of hazardous wastes into a subsurface strata with a potential effect on a freshwater aquifer.

C. Formations — no site shall be located in areas with active faulting conditions or areas with active subsidence unless corrective measures deemed satisfactory by the Secretary are taken.

8.3.2 Geography

A. Natural hazards — no facility shall be located in an area which historically has been subject to overflow by action of hurricanes or floods, unless site protection measures acceptable to the Secretary are included in the plan.

B. Areas of critical environmental concern — sites located in, or adjacent to, swamps, marshes, floodplains, estuaries, wildlife hatchery areas, habitat of endangered species, and similar critical environmental areas shall be isolated from such areas by effective barriers which eliminate possible adverse impacts on such areas due to operation of the facility.

C. Transportation — access to sites by surface and water transportation modes shall be by roads and waterways with the capacity to accept the demands created by the facility and designed to avoid, to the extent practical, congestion, sharp turns, obstructions, or other hazards which are conducive to accidents.

D. Services — sites shall have convenient access to required services, including: utilities, medical care, police and fire protection, and similar services, or provide these services internally in a manner acceptable to the Secretary.

8.3.3 Buffer Zone

A. General requirement -- sites shall be shielded from adjoining non-compatible land uses by space, natural separation, or other means acceptable to the Secretary.

B. Minimum requirements — in no event shall the buffer be less than:

1) Sites zoned industrially — sufficient space for security and drainage control facilities;

2) All other locations — 200' between any facility (treatment pond, incinerator, tank, etc.) and property line unless a proper buffer is installed which is acceptable to the Secretary.

8.3.4 Hydrology

A. General requirement — sites utilized shall be isolated from adjoining land and from subsurface and surface waters naturally, or by created barriers.

B. Drainage — site must have capability to control and contain run-off from a maximum rainfall in 24 hours during last 25 years (when maximum rainfall records are not available, the design standard shall be 12" below 31° North latitude and 9" above 31° North latitude) and must have capability to divert adjoining land (outside limits of hazardous waste site or if part of an industrial complex, outside limits of company property) run-off from such a storm from the site (surface and subsurface).

C. Floodplain or hurricane-prone areas — sites located in a floodplain or in an area which historically is subject to hurricanes shall be protected from entry into the site by water from such actions by natural or created barriers certified by professional engineers.

D. Conformity with existing restrictions and permits — sites located in floodways or wetlands under control of the U. S. Army Corps of Engineers must apply for applicable Corps permits. However, to avoid unnecessarily long licensing periods, the Department may accept and process the application with its final approval dependent upon a similar approval by the U. S. Army Corps of Engineers. Should the Corps of Engineers refuse to issue a permit, the Department shall remit any unused portion of the application fee. Final Department action on such state permit will be taken after final action by the Corps of Engineers on the required federal permit.

8.3.5 Discharges from the Site

A. General requirements — all point-source discharges must be controlled and reported as follows:

1) Water — discharges, if any, must be in conformity with effluent limitations established by the Clean Water Act operating under a NPDES permit and reported as required by

that permit. The NPDES Permit must be applied for prior to the issuance of a hazardous waste permit.

2) Air — emissions, if any, must be in conformity with air limitations of the Clean Air Act administered by the Louisiana Air Control Commission, operating under an Air Quality Permit as required, and reported as required by that permit. The Louisiana Air Control Commission Permit must be applied for prior to the issuance of a hazardous waste permit.

B. Surface — off-site shipments of any hazardous waste material, containers, packaging, or similar material must be reported on a manifest and must be delivered to a permitted facility.

8.4 Sites

8.4.1 Security Devices

A. Perimeter barrier — - a constructed barrier shall enclose the entire hazardous waste site and shall have the capability to deny unauthorized ingress or egress, except by willful entry, and prevent entry by domestic livestock.

B. Perimeter clear zone — a clear, lighted path shall be constructed and maintained inside the perimeter barrier to permit patrol by vehicle or foot.

C. Entry — entry facilities required include:

1) Gate at each entry point equipped with secure locking device;

2) Gate house for guard, or electromechanical equipment permitting controlled access.

3) Floodlighting — Each entry shall be well lighted to insure safety and security at night.

D. Emergency response facilities — are required as follows:

1) Communications — an alarm system with controls accessible to each area of potential spill, explosion, or fire; telephone contact to each facility location; 2-way radios for key personnel.

2) Fire control — portable fire extinguishers, decontamination facilities, fire control equipment at incinerators, mixing and treatment vats; and other fire-hazard facilities and fire hydrants (with capacity as required by State Fire Code) located not more than 200' from each fire-hazard facility.

E. Safety control devices

1) Moving equipment barriers — steel or concrete posts or barriers capable of stopping trucks or other equipment used on the site (at maximum expected speed) shall be installed to protect all hazardous waste above-ground pipelines, valves, or other containers located adjacent to roadways.

2) Personnel barriers — barriers shall be installed at all locations where employees or visitors normally come in contact with ponds, lagoons, incinerators, treatment facilities and other high-hazard locations.

F. Exterior lighting

1) All personnel barriers shall be lighted; all vehicle barriers shall have reflectors

2) Entry gates shall be lighted (see 8.4.1 C.)

3) Perimeter barriers shall be lighted (see 8.4.1 B.)

G. Any person may petition the Secretary for exemption from these requirements, in whole or in part, through submission of proof that such requirements are not necessary.

8.4.2 Receiving and Monitoring Incoming Waste

A. Each site which treats, stores, or disposes of hazardous wastes generated off-site shall be equipped to accomplish the following:

1) Provide control of all incoming waste to prevent entry of unrecorded and unanalyzed hazardous waste.

2) Measure quantity and type by taking and analyzing a representation sample of waste received to verify the information on the manifest, and to determine proper method to handle and dispose.

B. Each facility within the site which receives hazardous wastes shall be equipped with necessary devices to record quantities, by classification or other identification, of hazardous wastes deposited into the facility system.

C. Each site shall be equipped with a central control and recordkeeping system which tabulates information from "A" and "B" above.

D. On-site transfer systems

1) All docking, mooring, loading and unloading facilities for a hazardous waste treatment, storage or disposal facility are considered part of the facility operation.

2) Hose couplings for truck, barge, or pipeline discharge shall be located within a natural or created containment, with an elevation above surface elevation sufficient to contain a 10 minute discharge. Ground water protection as outlined in 5.4.7 B. 3) shall be provided.

3) Hose couplings on a barge shall be in a containment area on the barge to prevent leakage from entering the waterway.

4) Hoses from a barge to the facility shall be supported by a land-based boom so that the low point of the hose is within the barge or site containment area.

5) Barge moorings shall be in a slack water area outside the navigation channel.

8.4.3 Impoundments and Basins

A. Purpose

To isolate the hazardous waste contents of impoundments and basins from surface and ground water and, to the extent necessary, to protect public health from the release of hazardous waste into the atmosphere.

B. Requirements

1) Surface run-off within the site utilized shall be impounded on the site and treated as necessary to comply with NPDES discharge permit requirements.

2) Surface run-off outside the site (limits of hazardous waste facilities or, when part of an industrial complex, the limits of company property used for company operations) shall be diverted and prevented from entry into the site.

3) Ground water protection shall be provided by a barrier along the bottom and sides of the impoundment or basin. The barrier shall have the following characteristics:

a) Permeability: 3' clay at $1x10^{-7}$ cm/sec or less and so designed and operated as to prevent endangering any fresh-water aquifer by the migration of contaminants from the facility, or an equivalent system acceptable to the Secretary.

b) Resistance to action of elements and contents planned for impoundment or basin for a period of time not less than estimated life of the operation. A bond, or warranty satisfactory to the Secretary, is required for barriers (liners) for which historical performance data is not available.

4) Ground water monitor system is required (see 8.4.10) for the impoundment or basin except those equipped with an alternative system of monitoring leaks acceptable to the Secretary.

8.4.4 Hazardous Waste Storage Tanks

A. Purpose

Storage tanks shall be designed, constructed, and operated to prevent contact of the hazardous waste contents with the surrounding environment.

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B. Requirements

1) A spill containment area capable of containing the waste in case of a spill shall surround the tank. Capacity of the containment area must equal the capacity of the tank plus precipitation resulting from a 24-hour, 25-year storm.

2) A groundwater monitoring system shall be installed to measure seepage from the containment area.

3) Hazardous waste storage tanks shall be covered and shall not be vented directly to the atmosphere if the tanks are designed for volatile or malodorous waste or if a possibility exists that they may be used for such wastes.

8.4.5 Hazardous Waste Containers

A. Containers shall be handled and stored to minimize damage and potential leakage.

B. Spent containers to be disposed shall be considered hazardous and shall be disposed of or treated by an acceptable waste disposal or treatment method.

C. Spent containers sent to a reclaimer are considered product, thus are not subject to these rules and regulations. Residue from the reclaimer's operations must be disposed in a permitted facility.

8.4.6 Landfarming

A. Purpose

Landfarms shall be isolated from contact with the public, livestock, or private, irrigation, or livestock water supplies, both surface and underground.

B. Requirements

1) Soils shall be fine-grained with high clay or organic content (e.g., CL, OL, MH, CH and OH under the Unified Soil Classification system).

2) Soils shall maintain a high cation exchange capacity to absorb metallic elements in the waste by natural (pH range of the soil) or artificial means (additives).

3) Landfarms shall be located in a hydrologic section where the historic high water table is at a safe depth below the zone of incorporation, or the water table at the site shall be controlled to a safe depth below this zone.

4) Topography shall provide for drainage to prevent ponding.

5) Land slope shall be controlled to prevent erosion.

6) Run-off shall be collected and contained within the landfarm area in a catchment basin and disposed by irrigation, evaporation, or treatment. Any discharge into the off-site environment shall be governed by a NPDES permit.

7) Ground water monitoring systems shall be installed.

8.4.7 Landfill and Burial

A. Purpose

To prevent the contamination of surface and ground water and the air.

B. Requirements

1) Active portions of landfills and burial sites shall be located within a containment.

2) The containment, natural or created, shall have an elevation above the historic high water level and above the level of maximum capacity plus water from a 24-hour, 25-year rainfall.

3) Ground water protection shall be provided by a barrier at the bottom and along the sides of the landfill or burial site. This permanent barrier shall have the following characteristics:

a) Permeability: 3' clay at 1×10^{-7} cm/sec or less and so designed and operated as to prevent endangering any fresh-water aquifer by the migration of contaminants from the facility, or equivalent system acceptable to Secretary.

b) Resistance to action of elements, content placement (including equipment used to place contents), and chemical action of the contents by means protecting the integrity of the barrier.

4) Ground water and leachate monitor system are required for the site (see 8.4.10).

5) If noxious gases are generated, (or have the potential to be generated), the Secretary may specifically require a gas collection and control system.

8.4.8 Incinerators

(Note: Incinerators which are part of a product process are not subject to these regulations.)

A. Purpose

To insure necessary combustion and air pollution control to dispose of waste listed in the permit.

B. Requirements

1) The Operator shall secure a permit from the Louisiana Air Control Commission.

2) The Operator shall provide the Secretary with an acceptable set of performance standards, principally the composition of flue gases and provisions for shutdown, and an operations warranty from the Operator certifying that the equipment and operation satisfy the purposes of the permit.

3) Incoming waste monitoring is governed by 8.4.2.

4) Air monitoring system in the exhaust is required which will permit the required Department evaluation.

8.4.9 Chemical, Physical and Biological Treatment Facilities (wastes only)

A. Requirements

Does this apply to NPDES Treatment Trains?

1) Below-surface basins are governed by 8.4.3

2) Above-ground and mixing and other facilities in basins shall be certified by the designing engineer or manufacturer.

3) Treatment techniques shall include proper chemical analysis or data collecting such as is necessary to determine compatibility with existing treatment facilities, prevention of the release of toxic gases, and provisions for bacterial control and for safety of operating personnel.

4) Pilot, or bench scale, tests or reliable operating data must be obtained for any new or altered hazardous waste prior to introduction into an existing or new treatment sequence.

5) Storage and handling procedures insuring protection of human health and the environment must be observed for all treatment chemicals or reagents.

6) Proper design and operation of all equipment must be maintained to insure minimum spillage, foaming, or misting.

7) Reserve emergency storage must be maintained for critical process areas to insure against operational mishaps and inadvertent volumetric surges.

8) Flow safeguards and cut-offs must be included in the flow system to avoid improper operation, overflow, or treatment defects.

9) Residual sludges or by-products shall be analyzed before disposition within the treatment sequence.

10) Air monitoring system is required (8.4.10).

8.4.10 Monitoring Systems

A. Ground water

1) The ground water monitoring system shall consist of necessary wells, at least one hydraulically up-gradient, to monitor ground water moving toward the facility, and all the necessary number of wells down-gradient to monitor ground water leaving the facility. The wells shall be located to intercept contamination at the earliest possible occurrence. Well locations and completion depths must be selected to assure that probable contaminant flow-paths are monitored. The wells shall be cased and the casings shall be adequately sealed so that contaminants cannot be introduced from the surface or from one aquifer to another within the well bore, and so that only one water bearing sand is sampled per well.

B. Leachate

1) The leachate monitoring system shall contain a method and device to secure samples and determine leakage at two locations in facilities where the system is required as follows:

a) At the low point inside the barrier (liner) encased in sand, or other porous material, ensuring that leachate from all contents will percolate to the low point. Provision for pumping out all leachate which gathers inside this barrier shall be made.

b) At a low point under the barrier (liner) and encased in a porous layer over a dense (at least 3' of clay at 1×10^{-7} cm/sec) underlayment, or natural soil, to verify the integrity of the liner.

2) The system shall permit sampling from an accessible surface location.

3) An equivalent system acceptable to the Secretary may be installed in existing facilities.

C. Air

Installed, or available portable, air monitoring devices shall be located at all sites involving: incinceration, landfill, or treatment facilities. An installed air monitoring system (triangular grid) with continuous recording shall be installed at all commercial sites.

D. Sampling

Samples shall be taken from all required monitoring systems before waste is introduced (for new sites) to provide adequate base-line data. Sampling shall be done quarterly, and complete records shall be maintained at the site for examination by the Department.

8.4.11 Waste Compatibility

A. Wastes which are incompatible with one another, thereby creating danger to health and potential damage to the environment when mixed, shall not be handled, stored, treated, or disposed together.

B. In landfills and burial sites, incompatible wastes shall be adequate ly separated to avoid mixing of the wastes during operation or after closure.

C. Treatment and storage facilities containing incompatible wastes shall be sufficiently separated to prevent mixing as a result of a spill, tank failure or other cause.

8.4.12 Spills

A. Any spill of hazardous waste which could possibly endanger health or adversely affect the environment off-site shall be reported to the Department within 24 hours.

B. If a spill occurs on the site of a generator or storage, treatment, or disposal facility, and if that spill could possibly endanger the public health or affect the environment off-site, the Department and the Department of Public Safety have the authority to enter the site and investigate the spill. It is the responsibility of the Operator to report spills of this nature to the Department of Public Safety as soon as possible.

8.5 Administration

8.5.1 Recordkeeping and Reports

The Operator shall maintain all records necessary for efficient business operation and which permit preparation and verification of the reports required by the Department as outlined in these rules and regulations.

8.5.2 Security

A. General requirements — the security system shall insure that site ingress and egress by the public is controlled and that employees are protected from hazards to health resulting from contact with extremely hazardous operations.

patrol ? birds ?

B. Perimeter control — the natural or created barrier to site ingress or egress around the entire perimeter of the hazardous waste area as required in 8.4.1 shall be regularly patrolled or monitored. Equipment will be installed, as necessary, to reduce the attractiveness of a site to birds and wildlife.

C. Entry — each entry through the perimeter barrier shall be manned all hours the entry is open by security personnel or by an electronic system (card, code, handprint, etc. or television monitor) acceptable to the Secretary.

D. Warning signs — a sign "WARNING - Hazardous Waste Area - Unauthorized Personnel Keep Out" shall be posted at each entry and at 200' intervals around the perimeter of the hazardous waste area.

E. Any operator may petition the Secretary for acceptance of equivalent alternative means of meeting these requirements in whole or in part through submission of proof that necessary procedures for the protection of health and property are provided by other means and that representatives of local fire and police departments, if any, are adequately informed of such means.

8.5.3 Emergency Procedures, Contingency Plans, and Training

A. A contingency plan shall be filed with the Secretary and, after approval, with the local fire and police departments (if any operate in the area), hospitals and emergency response teams operating in the area or subject to call by the Operator or the Department.

B. The plan shall be revised each time the facility operations are changed due to expansion, change in type or quantity of waste handled, or other changes which affect the degree or type of possible emergency situation.

C. Operator shall conduct training sessions to be held at regular intervals to inform the plant contingency team, representatives of local fire and police departments, and emergency response teams of plant layout, location of possible hazards, emergency equipment location and operation, the evacuation plan and route, power and stream cut-offs, communications equipment and phone numbers of all required contacts, and other critical information and procedures.

D. During operation of the facilities at least one person, trained in emergency procedures, shall be on duty at all times and in charge of all emergency response measures.

E. Any operator may petition the Secretary for acceptance of equivalent alternatives means of meeting these requirements in whole or in part through submission of proof that necessary procedures for the protection of health and property are provided by other means and that representatives of local fire and police departments, if any, are adequately informed of such means.

8.6 Closure and Post-Closure

8.6.1 Purpose

To insure protection of the public and ecology against leakage of hazardous wastes to the environment from closed facilities which formerly stored, treated, and/or disposed of such wastes.

8.6.2 Closure Financial Responsibility

A. The Operator shall submit, with the permit application, the estimated cost of closure, including long-term monitoring devices, and the number of years of estimated operation before closure.

B. The Operator shall create a "Closure Fund," to be company owned and managed under the following requirements:

1) Assets of the fund may be invested in Certificates of Deposit, U. S. Government obligations, company bonds or stock approved by the Secretary, surety, fidelity, or performance bonds or other investments approved by the Secretary.

2) Payments into the fund will be made on the date operation is begun and annually on the anniversary date of beginning operation.

3) Payments are in the amount of the total estimated cost of closure divided by the estimated number of years of operation before closure. Earned interest may be included as part of the next annual payment.

4) Expenditures from the fund cannot be made without approval of the Secretary. Such approval will be given at time of closure according to approved schedules as outlined in Section 8.6.3 and 8.6.4.

5) An annual report of the closure fund prepared by a certified public accountant shall be submitted to the Secretary.

8.6.3 Notification of Intention to Close a Facility

A. At least 90 days prior to closure the Operator must notify the Secretary of intention to close and supply the following information:

1) Date of planned closure;

2) Changes, if any, requested in the closure plan submitted with the permit application to take advantage of new technology, unforeseen situation, and other requests which improve the safety of the closed facility;

3) Closure schedule and estimated costs of each phase of the closure plan;

4) Request for release of closure funds in amounts and times as required by the closure schedules.

8.6.4 Closure Procedures

A. If closure methods are unchanged from the plan approved with the permit:

1) The Secretary will acknowledge receipt of the notification to close and prepare appropriate documents which will be executed upon completion and acceptance of each phase of the closure plan so that funds can be released.

B. If request is made to change closure plan:

1) Operator will submit revisions to the plan, supported by necessary scientific and engineering data to permit evaluation by Department.

2) Procedures established in Permit Process (see 5.3) will be followed in evaluating and approving the requested changes.

8.6.5 Closure Requirements

A. All movable equipment, containers, and facilities shall be decontaminated, and inspected and approved by the Department prior to removal from the site or disposed on the site following approved procedures.

B. The Operator shall prepare and submit to the Secretary a certified plat, indicating locations of all burial sites and facilities, and contents of those sites. This plat will be filed with the land records of the Parish in which the facility is located.

C. All post-closure equipment and facilities outlined in the plan shall be installed.

D. The Operator and a Registered Professional Engineer who supervised the closure shall submit to the Secretary certification that the closure has been accomplished in accordance with the approved plan.

8.6.6 Post-Closure Procedures

A. Any proposed transfer of ownership of the property shall be reported to the Secretary at least 60 days prior to execution of such sale.

B. The Secretary must approve any new owner. Criteria for approval includes: agreement to land use restrictions necessary to protect public health and financial responsibility covering liability due to change in land use.

C. The Secretary will conduct an annual evaluation of the site for a period to be not less than twenty years from date of closure.

8.6.7 Financial Considerations

A. The Secretary will execute approval of expenditure of "Closure Fund" assets for each phase of the closure schedule upon completion and acceptance of required work.

B. Upon completion of all the work elements, including installation of required monitoring and post-closure safety devices, the Secretary will execute an approval to terminate the "Closure Fund" or authorize the cancellation of the surety or performance bond.

8.7 Financial Responsibility

8.7.1 Required Financial Responsibility During Operation

A. An Operator of hazardous waste treatment, storage, or disposal facilities shall file, as part of his application for a permit, proof of the financial responsibility required by this section.

B. The financial responsibility required shall be maintained at all times during the operation of any hazardous waste treatment, storage, or disposal facility and shall be annually reported to the Secretary.

C. Requirements are:

proof of Responsibility

For sudden and accidental occurrences shall be in the amount of $5 million per occurrence, exclusive of legal defense costs, for claims arising out of injury to persons or property from the release or escape of hazardous waste into the environment from the facility.

2) For non-sudden and accidental occurrences shall be in the amount of $5 million per occurrence with a $10 million annual aggregate for claims arising out of injury to persons or property from the gradual or steady state release or escape of hazardous waste to the environment from such facility.

D. The financial responsibility required by this section may be established by any one or a combination of the following:

1) Evidence of liability insurance;

2) Self insurance, provided that the level of self insurance shall not exceed 20 percent of equity; or

3) Other evidence of equivalent financial responsibility acceptable to the Secretary.

9.0 STANDARDS APPLICABLE TO FACILITIES TREATING, STORING AND/OR DISPOSING OF SPECIAL WASTE

9.1 Scope

9.1.1 Facilities which store, treat, or dispose of "Special Waste," as listed in 4.2.1 E., are exempt from Section 8.0, "Standards Applicable to Facilities which Treat, Store, and/or Dispose of Hazardous Waste" and are subject to standards outlined in 9.2 to 9.10 inclusive, where referenced.

9.2 Site Requirements

9.2.1 Geology

8.3.1 shall govern

9.2.2 Geography

A. Natural Hazards - 8.3.2.A. shall govern

B. Areas of environmental concern - 8.3.2.B. shall govern

C. Transportation - 8.3.2.C. shall govern

D. Services - 8.3.2 D. is not applicable

9.2.3 Buffer Zone

A. General requirements - 8.3.3 A. shall govern

B. Minimum requirements - 8.3.3 B. is not applicable

9.2.4 Hydrology

All sections of 8.3.4 shall govern

9.2.5 Discharge from Site

8.3.5 shall govern

9.2.6 Security Devices

A. Perimeter barrier:

1) Spent bauxite and industrial wastewater - 8.4.1.A. shall govern

2) Other "Special Waste" — a minimum physical separation from site at points of contact with roads or paths shall be provided.

B. Perimeter clear zone:

1) Industrial wastewater - 8.4.1.B. shall govern

2) Other "Special Waste" — not applicable

3) Posting — perimeter of site shall have "POSTED" signs at intervals not greater than 300'.

C. Entry

1) Industrial wastewater - 8.4.1 C. shall govern

2) Spent bauxite - gate 8.4.1 C. 1) shall govern; other Sections of 8.4.1 C. not applicable

3) Other "Special Wastes" - 8.4.1 C. not applicable

D. Emergency response —8.4.1 D. not applicable

E. Safety control devices 8.4.1 E. — not applicable

F. Exterior lighting 8.4.1 F. — not applicable

9.3 Facility Standards - Sections 8.4.2 - 8.4.9 Inclusive

A. Industrial wastewater

1) All sections governing facilities included in the complex shall govern

2) Adequacy of existing facilities to meet required standards will be based on an evaluation by the Secretary of the following factors:

a) Applicability of specific standard to the existing facility in question;

b) Potential of existing facility to endanger human health or the environment determined by monitoring or other applicable tests;

c) Barrier integrity will be determined by ground water monitoring tests or surface manifestation of environmental damage or a threat to public health.

B. Other "Special Wastes"

Not applicable

9.4 Monitoring

9.4.1 Ground water monitoring wells (8.4.10.A. and D.) are required for all "Special Waste" sites.

9.5 Run-off Containment

9.5.1 A dike-ditch system or equivalent to contain run-off shall be installed around the site perimeter (limits of hazardous waste facilities or, if part of industrial complex, limits of company property utilized for company operations).

9.5.2 Run-off shall be returned to disposal area or treated and discharged under provisions of an NPDES permit.

9.6 Administration

9.6.1 Recordkeeping — records adequate to complete the required annual report to Secretary concerning quantity and type of wastes disposed shall be maintained.

9.6.2 Other provisions of 8.5 are not applicable.

9.7 Closure and Post-Closure

9.7.1 Closure Financial Plan - 8.6.2 shall govern

9.7.2 Notification to Close - 8.6.3 shall govern

9.7.3 Closure Procedures - 8.6.4 shall govern

9.7.4 Closure Requirements

A. Closure Requirements for wastewater facilities

8.6.5 shall govern

B. Closure Requirements for Spent Bauxite

The site shall be covered in a manner approximating original site conditions or rendered harmless in accordance with the approved closure plan.

C. Closure Requirements for product gypsum, coal residue, or cement kiln dust

1) Stacks shall be stabilized against wind and water erosion and contained in a manner which will prevent excessive collection of water.

2) Surface shall be covered in accordance with requirements of the approved closure plan

9.8 Post Closure Procedures — Section 8.6.6 shall govern

9.9 Financial Consideration — Section 8.6.7 shall govern

9.10 Financial Responsibility — Section 8.7 shall govern

10.0 ENFORCEMENT

10.1 Failure to comply with any of the provisions of these regulations or of the terms and conditions of any permit granted or order issued hereunder constitutes a violation of the Act.

10.2 Reports of Violations; Investigations

10.2.1 Upon the receipt of any information concerning a violation of the requirements of the Act or these regulations, the Secretary shall cause an investigation to be conducted into the alleged violation within seven days.

10.2.2 All facts concerning any violation developed in such an investigation shall be fully documented in a report of investigation and presented to the Secetary within seven days of completion of the investigation. A copy of this report shall be furnished to the Louisiana Department of Justice for use in any civil or criminal proceedings under the Act.

10.3 Upon receipt of any report of investigation which substantiates a violation of the requirements of the Act or these regulations, the Secretary shall commence enforcement proceedings under the Act.

10.4 All civil action required in the enforcement process including, but not limited to, suits for a temporary or permanent injunction and suits for damages resulting from a violation of the Act or these regulations shall be brought by the Louisiana Department of Justice, upon the direction of the Secretary.

10.5 Notwithstanding anything to the contrary herein provided, whenever the Secretary determines that a violation of the Act or these regulations is occurring or is about to occur, which violation is of such magnitude as to require immediate action to prevent irreparable damage to the public health or environment, the Secretary may issue an emergency cease and desist order pursuant to the provisions of the Act.

10.6 In addition to the civil liabilities enumerated in these regulations, any person who knowingly violates any provision of the Act, or any written order or regulation issued thereunder, shall upon conviction be subject to the criminal penalties provided in the Act.

APPENDIX A

CATEGORY I (see Sec.4.1.1 A) HAZARDOUS WASTES: Chemicals and Process Streams Whose Hazardous Nature Has Been Prescribed by Prior Determination

A. Designated chemical hazardous wastes (irrespective of source):

1. Waste chlorinated hydrocarbons from degreasing operations
2. Waste non-halogenated solvents (such as methanol, acetone, isopropyl alcohol, polyvinyl alcohol, stoddard solvent, methyl ethyl ketone) and solvent sludges from cleaning, compounding, milling and other processes
3. Waste lubricating oil
4. Waste hydraulic or cutting oil
5. Paint wastes (such as used rags, slops, latex sludge, spent solvent)
6. Water-based paint wastes
7. Tank bottoms, leaded
8. Spent or waste cyanide solutions or sludges
9. Etching acid solution or sludges
10. Waste paint and varnish remover or stripper
11. Solvents and solvent recovery still bottoms (non-halogenated)
12. Solvents and solvent recovery still bottoms (halogenated)
13. Waste or waste off-spec toluene di-isocyanate
14. Leachate from hazardous waste landfills
15. Electroplating wastewater treatment sludge

B. Designated Process Streams Comprising Hazardous Waste:

SIC CODE	PROCESS DESCRIPTION
	Effluent from sewage treatment plants, with the exception of publicly owned treatment works, unless sludge generated by such a plant has been stabilized by means of chemical, physical, thermal, or biological treatment processes that result in the significant reduction of odors, volatile organics and pathogenic microorganisms. These processes are discussed in "Municipal Sludge Management: Environmental Factors; Technical Bulletin" (42 CFR 57420). Specifications for the stabilization processes discussed in this publication are given in "Process Design Manual for Sludge Treatment and Disposal."
1094	Waste rock and overburden from uranium mining
1099	Chlorinator residues and clarifier sludge from zirconium extraction
1475	Overburden and slimes from phosphate surface mining
2231	Wool fabric dying and finishing wastewater treatment sludges
2250	Knit fabric dying and finishing wastewater treatment sludges
2261-2	Woven fabric dying and finishing wastewater treatment sludges
2269	Yarn and stock dying and finishing wastewater treatment sludges
2279	Carpet dying and finishing wastewater treatment sludges
2299	Wool scouring wastewater treatment sludges
2812	Mercury bearing sludges from brine treatment from mercury cell process in chlorine production
2812	Sodium calcium sludge from production of chlorine by Down Cell process
2812	Mercury bearing brine purification muds from mercury cell process in chlorine production

SIC CODE	PROCESS DESCRIPTION
2812	Wastewater treatment sludge from diaphragm cell process in production of chlorine
2812	Chlorinated hydrocarbon bearing wastes from diaphragm cell process in chlorine production
2816	Chromium bearing wastewater treatment sludge from production of chrome green pigment
2816	Chromium bearing wastewater treatment sludge and other chromium bearing wastes from production of chrome oxide green pigment (anhydrous & hydrated)
2816	Ferric ferrocyanide bearing wastewater treatment sludges from the production of iron blue pigments
2816	Mercury bearing wastewater treatment sludges from the production of mercuric sulfide pigment
2816	Chromium bearing wastewater treatment sludges from the production of TIO_2 pigment by the chloride process
2816	Chromium bearing wastewater treatment sludges from the production of TIO_2 pigment by the sulfate process
2816	Arsenic bearing sludge from purification process in the production of antimony oxide
2816	Chromium or lead bearing wastewater treatment sludge from production of chrome yellows and oranges (lead chromate)
2816	Chromium or lead bearing wastewater treatment sludge from production of molybdate orange (lead molybdate lead chromate)
2816	Zinc and chromium bearing wastewater treatment sludge from production of zinc yellow pigment (hydrated zinc potassium chromate)
2816	Ash from incinerated still bottoms (paint and pigment production)
2819	Arsenic bearing wastewater treatment sludges from production of boric acid
2819-2874	Slag and fluid bed prills from elemental phosphorous production
2834	Arsenic or organo-arsenic containing wastewater treatment sludges from production or veterinary pharmaceuticals
2851	Air pollution control sludges from paint production
2865	Vacuum still bottoms from the production of maleic anhydride
2865	Still bottoms from distillation of benzyl chloride
2865	Distillation residues from fractionating tower for recovery of benzene and chlorobenzenes
2865	Vacuum distillation residues from purification of 1-chlor-4-nitrobenzene
2865	Still bottoms or heavy ends from methanol recovery in methyl methacrylate production
2869	Heavy ends from fractionation in ethyl chloride production
2869	Heavy ends (still bottoms) from fractionator in production of epichlorohydrin
2869	Column bottoms or heavy ends from production of trichloroethylene
2869	Residues from the production of hexachlorophenol, trichlorophenol and 2,4,5,-T

SIC CODE	PROCESS DESCRIPTION
2869	Heavy ends from distillation of vinyl chloride in production of vinyl chloride from ethylene dichloride
2869	Heavy ends from distillation of ethylene dichloride in vinyl chloride production
2869	Heavy ends or distillation residues from carbon tetrachloride fractionation tower
2869	Heavy ends from distillation of ethylene dichloride in ethylene dichloride production
2869	Purification column wastes from production of nitrobenzene
2869	Still bottoms from production of furfural
2869	Spent catalyst from fluorocarbon production
2869	Centrifuge residue from toluene diisocyanate production
2869	Lead slag from lead alkyl production
2869	Stripping still tails from production of methyl ethyl pyridines
2869	Still bottoms from aniline production
2869	Aqueous effluent from scrubbing of spent acid in nitrobenzene production
2869	Bottom stream from quench column in acrylonitrile production
2869	Bottom stream from wastewater stripper in production of acrylonitrile
2869	Still bottoms from final purification of acrylonitrile
2869	Solid waste discharge from ion exchange column in production of acrylonitrile
2869	Waste stream from purification of HCN in production of acrylonitrile
2869	Waste stream (column bottoms) from acetonitrile purification in production of acrylonitrile
2869	Wastewater treatment, sludges from the production of dieldrin, chlordane, toxaphene, disulfoton, malathion, phorate, carbaryl, pentadiene, trifluralin, alachlor, methyl parathion, vernoloate, methomyl, carbofuran, captan, creosote, dithacarbamates, pentachlorophenol, bromacil, diuron, p-chlorobenzene and chloroxuron
2869	Wastewater from oxidation of aldrin solution in production of dieldrin
2869	Wastewater from extraction of dieldrin solution in production of dieldrin
2869	Wastewater and scrub water from chlorination of cyclopentadiene in production of chlordane
2869	Filter solids from filtration of hexachlorocyclopentadiene in production of chlordane.
2869	Filter cake from filtration of toxaphene solution in production of toxaphene
2869	Unrecovered triester from production of disulfoton.
2869	Still bottoms from toluene reclamation distillation in production of disulfoton
2869	Filter cakes from filtration of dimethylphosphorothion and DMTA in production of malathion
2869	Liquid wastes from washing and stripping in production of malathion.
2869	Liquid and solid wastes from the washing, stripping and filtering of phorate in phorate production

SIC CODE	PROCESS DESCRIPTION
2869	Filter cake from the filtration of diethylphosphorodithoric acid in the production of phorate.
2869	Heavy ends and distillation residues from production of carbaryl.
2869	2,6-D waste by-product from production of 2,4-D
2869	Heavy ends or distillation residues from distillation of tetrachlorobenzene in production of 2,4,5-T
2869	Scrubber and filter wastes from production of atrazine.
2869	Filter cake from production of pyrethrins.
2869	Filter cake from production of diazinon.
2869	By-product salts in production of MSMA.
2869	By-product salts in production of cacodylic acid.
2869	Tars from manufacture of bicycloheptadiene and cyclopentadiene.
2890	Sludges, wastes from tub washer (Ink Formulation)
2911	Petroleum refining, high octane production neutralization HF alkylation sludge
2911	API separator sludge
2911	Petroleum refining DAF sludge
2911	Petroleum refining kerosene filter cakes
2911	Petroleum refining lube oil filtration clays
2911	Petroleum refining — slop oil emulsion solids
2911	Petroleum refining exchange bundle cleaning solvent
2951	Wastewater treatment sludges from paint production
2892	Wastewater treatment sludges from explosives, propellants and initiating compounds manufacture.
2892	Wastes recovered from acid vapor scrubber stream in the production RDX/HMX
2892	Catch basin materials in RDX/HMX production
2892	Spent carbon columns used in treatment of wastewater — LAP operations
2892	Wastewater treatment sludges from production of initiating compounds
2892	Red water and pink water from TNT production
3111	Leather tanning and finishing: Wastewater treatment sludge from chrome tannery, beamhouse/tanhouse
3111	Leather tanning and finishing: Wastewater treatment screenings from sheepskin tannery, split tannery and retan/finishers
3111	Trimmings and shavings from leather tanning and finishing chrome, split, beam/tanhouse and retan/finishers
3111	Wastewater treatment sludge from dehairing
3312	Coking: Decanter tank tar :Decanter tank pitch sludge :Oleum wash waste :Caustic neutralization waste :Ammonia still lime sludge
3312	Iron Making: Ferromanganese blast furnace dust :Ferromanganese blast furnace sludge :Electric furnace dust and sludge
3312	Steel Finishing: Alkaline cleaning waste :Waste pickle liquor :Cyanide-bearing wastes from electrolytic coating :Chromate and dichromate wastes from chemical treatment :Descaling acid

SIC CODE	PROCESS DESCRIPTION
3331	Primary copper smelting and refining electric furnace slag, converter dust, acid plant sludge, and reverberatory dust
3331	Primary lead lagoon dredging from smelter
3332	Primary lead blast furnace dust
3333	Zinc acid plant blowdown lime treatment: gypsum cake (acid cooling tower and neutral cooling tower)
3333	Zinc production: oxide furnace residue and acid plant sludge
3333	Zinc anode sludge
3339	Primary antimony-electrolytic sludge
3339	Primary tungsten-digestion residues
3339	Primary lead sinter dust scrubbing sludge
3339	Ferromanganese emissions control: baghouse dusts and scrubwater solids
3339	Ferrochrome silicon furnace emission control dust or sludge
3339	Ferrochrome emissions control: furnace baghouse dust, and ESP dust
3339	Primary antimony-pyrometallurgical blast furnace slag
3341	Secondary lead, scrubber sludge from SO_2 emission control, soft lead production
3341	Secondary lead-white metal production furnace dust
3341	Secondary copper-pyrometallurgical, blast furnace slag.
3341	Secondary copper-electrolytic refining wastewater treatment sludge
3341	Secondary aluminum dross smelting — high salt slag plant residue
3341	Zinc — cadmium metal reclamation, cadmium plant residue.
3691	Lead acid storage battery production wastewater treatment sludges
3691	Lead acid storage battery production clean-up wastes from cathode and anode paste production
3691	Nickel cadmium battery production wastewater treatment sludges
3691	Cadmium silver oxide battery production wastewater treatment sludge
3691	Mercury cadmium battery production wastewater treatment sludges
3692	Magnesium carbon battery production chromic acid wastewater treatment sludges

CATEGORY II HAZARDOUS WASTES: "Special Wastes" as listed in 4.2.1 E.

Spent bauxite (red mud) resulting from production of alumina

By-product gypsum and other wastes resulting from the production of phosphoric acid and phosphate fertilizers

Coal residue (ash and SO_2 scrubber sludge) after use as a boiler fuel

Cement kiln dust

Industrial waste water identified as hazardous in 4.1.1 in an NPDES treatment train when that train includes ponds, impoundments or similar facilities.

CATEGORY III (see Sec. 4.1.1 C) HAZARDOUS WASTES: Wastes Designated as Hazardous by Class Analytical Procedures - With Related Level of Hazard Ratings

Four hazard classes are defined for rating wastes not otherwise characterized: ignitability, corrosivity, reactivity, and toxicity. For each a level of hazard rating table comparable to that presented by the Material Safety Data Sheet (MSDS) is also presented as a guide to level of care requirements to be normally expected. The state hazardous waste management rules and regulations presented in this report will apply to those materials carrying a hazard rating of 2 or higher in any class.

A. Ignitability

A waste will be considered a moderate ignitable hazard (hazard level 2 in Table A-1) if a representative sample of the waste:

1) Is a liquid and has a flash point less than 60°C (140°F) determined by the methods cited in American Society for Testing Materials (ASTM) D-93-72 or ASTM 3278-73.

2) Is not a liquid and is liable to cause fires through friction, absorption of moisture, spontaneous chemical changes, or retained heat from manufacturing or processing.

3) Is an ignitable compressed gas as defined in 49 CFR 173.300(b), or

4) Is an oxidizer as defined 49 CFR 173.51.

TABLE A-1

IGNITABILITY	
Hazard Level	Description
0	None, material does not burn
1	Minor, material must be preheated to burn
2	Moderate, some heating is required for: ignition and volatile vapors are released (Flash point of 140°)
3	Severe, material ignites at normal temperature
4	Extreme, very flammable substance that readily forms explosive mixtures.

B. Corrosivity

A waste is a moderately corrosive hazardous waste if a representative sample of the waste:

1) Is aqueous and has a pH less than or equal to 2.5 or greater than or equal to 12.5.

2) Corrodes steel (SAE 1020) at a rate greater than 0.250 inch per year at a test temperature of 130°F.

Table A-2 provides a minimum "level" of hazard rating scale for corrosivity.

TABLE A-2

Hazard Level	CORROSIVITY Description
0	None
1	Minor
2	Moderate (as described in protocol)
3	Severe

C. Reactivity

A waste is a reactive waste of moderate hazard if a representative sample of the waste:

1) Is normally unstable and readily undergoes violent chemical change without detonating; reacts violently with water, forms potentially explosive mixtures with water, or generates toxic gases, vapors, or fumes when mixed with water; or is a cyanide or sulfide bearing waste which can generate dangerous quantities of toxic gases, vapors, or fumes when exposed to mild acidic or basic conditions.

2) Is capable of detonation or explosive reaction but requires a strong initiating source or which must be heated under confinement before initiation can take place, or which reacts explosively with water.

3) Is readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures.

4) Is a forbidden explosive as defined in 49 CFR 173.51, a Class A explosive as defined in 49 CFR 173.53, or a Class B explosive as defined in 49 CFR 173.58.

NOTE: Such waste includes pyrophoric substances, explosives, autopolymerizable material and oxidizing agents. If it is not apparent whether a waste is a hazardous waste using this description, then the methods cited below or equivalent methods can be used to determine if the waste is hazardous waste.

TABLE A-3

Hazard Level	REACTIVITY Description
0	None, stable when exposed to fire
1	Minor, unstable at high temperatures or pressures and may react as noted above with water or mild acids or bases.
2	Moderate, unstable but does not explode; may form explosive mixtures or noxious fumes with water or mild acids or bases.
3	Severe, explodes if heated or water added or forms toxic fumes with water, mild acids or bases.
4	Extreme, readily explosive under normal conditions or forms highly toxic fumes with water, mild acids or bases.

Table A-2 provides a minimum "level" of hazard rating scale for corrosivity.

TABLE A-2

Hazard Level	CORROSIVITY Description
0	None
1	Minor
2	Moderate (as described in protocol)
3	Severe

C. Reactivity

A waste is a reactive waste of moderate hazard if a representative sample of the waste:

1) Is normally unstable and readily undergoes violent chemical change without detonating; reacts violently with water, forms potentially explosive mixtures with water, or generates toxic gases, vapors, or fumes when mixed with water; or is a cyanide or sulfide bearing waste which can generate dangerous quantities of toxic gases, vapors, or fumes when exposed to mild acidic or basic conditions.

2) Is capable of detonation or explosive reaction but requires a strong initiating source or which must be heated under confinement before initiation can take place, or which reacts explosively with water.

3) Is readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures.

4) Is a forbidden explosive as defined in 49 CFR 173.51, a Class A explosive as defined in 49 CFR 173.53, or a Class B explosive as defined in 49 CFR 173.58.

NOTE: Such waste includes pyrophoric substances, explosives, autopolymerizable material and oxidizing agents. If it is not apparent whether a waste is a hazardous waste using this description, then the methods cited below or equivalent methods can be used to determine if the waste is hazardous waste.

TABLE A-3

Hazard Level	REACTIVITY Description
0	None, stable when exposed to fire
1	Minor, unstable at high temperatures or pressures and may react as noted above with water or mild acids or bases.
2	Moderate, unstable but does not explode; may form explosive mixtures or noxious fumes with water or mild acids or bases.
3	Severe, explodes if heated or water added or forms toxic fumes with water, mild acids or bases.
4	Extreme, readily explosive under normal conditions or forms highly toxic fumes with water, mild acids or bases.