

***Procedural Manual  
Title III***

***of***

***DAO 92-29  
“Hazardous Waste  
Management”***

***DENR AO 36  
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# ***Introduction***

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## **INTRODUCTION**

Population growth and the increased demands for manufactured goods for local and export markets has led to intensified industrialization efforts by various Philippine governments. Industrialization resulted in generation of industrial wastes, including hazardous wastes, that require management to prevent or minimize risks to the environment and public health. The Philippine economy has grown over the years leading to even higher production of hazardous wastes that unfortunately have not been managed properly and safely.

### **Legal Framework of Hazardous Waste Management**

Presidential Decree (PD) 1152, “the Philippine Environmental Code,” which took effect in 1977, provides a basis for an integrated waste management regulation starting from waste source to methods of disposal. PD 1152 has further mandated specific guidelines to manage municipal wastes (solid and liquid), sanitary landfill and incineration, and disposal sites in the Philippines.

In 1990, the Philippine Congress enacted the Toxic Substances, Hazardous and Nuclear Wastes Control Act, commonly known as Republic Act (RA) 6969, a law designed to respond to increasing problems associated with toxic chemicals and hazardous and nuclear wastes. RA 6969 mandates control and management of import, manufacture, process, distribution, use, transport, treatment, and disposal of toxic substances and hazardous and nuclear wastes in the country. The Act seeks to protect public health and the environment from unreasonable risks posed by these substances in the Philippines.

Apart from the basic policy rules and regulations of RA 6969, hazardous waste management must also comply with the requirements of other specific environmental laws, such as PD 984 (Pollution Control Law), PD 1586 (Environmental Impact Assessment System Law), RA 8749 (Clean Air Act) and RA 9003 (Ecological Solid Waste Management Act) and their implementing rules and regulations.

### **Purpose of the Procedural Manual**

Systems and procedures have evolved over time that need to be consolidated and integrated into a useful information material for use by regulators, the regulated community and other stakeholders. Moreover, recent environmental legislations have implications on hazardous waste management that need to be integrated into its implementation framework. Thus emerged the need to provide hazardous waste

generators, transporters, TSD premises operators, the general public and the regulatory personnel with clear, sufficient and updated information about complying with the legal and technical requirements of hazardous waste management (HWM).

This Procedural Manual is therefore designed to serve as a primary reference for DENR staff or personnel, existing and prospective waste generators, transporters, and treaters, environmental units of government agencies, local government officials, non-governmental or people's organization, and other stakeholders in the smooth implementation of proper hazardous waste management. It aims to clarify the definition of hazardous waste and provide technical standards and requirements for hazardous waste generators, transporters, and premises/facilities involved in the treatment, storage, recycle, reprocess, and disposal of hazardous wastes in the country.

## **Overview of the Procedural Manual**

The Procedural Manual provides the reader, who is a key HWM player, a comprehensive documentation on the legal and technical requirements of hazardous waste management. These requirements are essentially those mandated in DAO 92-29, specifically Title III, **except provisions pertaining to nuclear wastes**. However, significant revisions and updating of pertinent DAO 92-29 and DAO 94-28 provisions are also incorporated in this manual.

This manual is composed of ten sections, namely:

1. Classification of Hazardous Wastes (Chapter 1)
2. Waste Generators (Chapter 2)
3. Waste Transporters (Chapter 3)
4. Waste Transport Record or Manifest System (Chapter 4)
5. Hazardous Waste Storage and Labeling (Chapter 5)
6. Waste Treaters and TSD Facilities (Chapter 6)
7. Import of Recyclable Materials Containing Hazardous Substances and Export of Hazardous Wastes (Chapter 7)
8. Prohibited Acts and Penalties (Chapter 8)
9. Monitoring (Chapter 9)
10. Schedule of Fees (Chapter 10)

## DEFINITION OF TERMS

The Procedural Manual adopts the following definition of terms in addition to those provided in Section 6 of DAO 92-29 and DAO 94-28 as follows:

**Chemical Control Order** prohibits, limits, and regulates the use, manufacture, import, export, transport, processing, storage, possession and wholesale of priority chemicals

**Corrosive.** Corrosive wastes include those that are acidic or basic and those that are capable of corroding metal (such as containers, tanks, barrels, and drums).

**Department** means the Department of Environment and Natural Resources.

**EMB** means Environmental Management Bureau of the Department of Environment and Natural Resources.

**Encapsulation** means physical immobilization of hazardous substances in a waste by enveloping the waste in a non-porous, impermeable material.

**Hazardous substances** are substances which present either:

short-term acute hazards such as acute toxicity by ingestion, inhalation or skin absorption, corrosivity or other skin or eye contact hazard or the risk of fire or explosion;

long-term environmental hazards, including chronic toxicity upon repeated exposure, carcinogenicity (which may in some case result from acute exposure but with a long latent period), resistance to detoxification process such as biodegradation, the potential to pollute underground or surface waters, or aesthetically objectionable properties such as offensive odors.

**Hazardous wastes** are:

a) substances that are without any safe commercial, industrial, agricultural or economic usage and are shipped, transported or brought from the country of origin for dumping or disposal into or in transit through any part of the territory of the Philippines,

b) by-products, side-products, process residues, spent reaction media, contaminated plant or equipment or other substances from manufacturing operations and as consumer discards of manufactured products which present unreasonable risk and/or injury to health and safety and to the environment.

**Ignitable.** Ignitable wastes can create fire under certain conditions. Examples include liquids, such as solvents that readily catch fire and friction-sensitive substances.

Liquid: any liquid having a flash point of not more than 60.°C, closed-cup test, or 65.6°C, open-cup test. See Figure 2a.

**Solid:** any of the following three types of materials: wetted explosives that when dry are explosives; self-reactive materials that are liable to undergo, at normal or elevated temperatures, a strongly exothermal decomposition caused by excessively high transport temperatures or contamination; or readily combustible solids that may cause a fire through friction, show a burning rate faster than 2.2 mm per second, or be ignited and react over the whole length of a sample in 10 minutes or less. See Figure 2b.

Pyrophoric materials (solid or liquid) that, even in small quantities and without an external ignition source, can ignite within five minutes after coming in contact with air; or self-heating materials that, when in contact with air and without an energy supply, are liable to combustion.

**Immobilization** means to render hazardous substances in a waste not likely to move by vaporization into the air, or by leaching into surface water bodies or groundwater. It includes stabilization, solidification, and encapsulation.

**Importation** means the entry of a product or substance into the Philippines (through the seaports or airports of entry) after having been properly cleared through or still remaining under customs control, the product or substance of which is intended for direct consumption, merchandising, warehousing, for further processing.

**Infectious waste** is a type of biomedical or health care waste suspected to contain pathogens (bacteria, viruses, parasites or fungi) in sufficient concentration or quantity to cause disease in susceptible hosts.

**Inert waste** means any waste that, when placed in a landfill is reasonably expected not to undergo any physical, chemical, and/or biological changes to such an extent as to cause pollution or hazard to public health and safety.

**New TSD Facilities** – Facilities that are constructed/installed after the approval of this DENR Administrative Order.

**Nuclear wastes** are hazardous wastes made radioactive by exposure to the radiation incidental to the production or utilization of nuclear fuels but do not include nuclear fuel, or radioisotopes which have reached the final stage of fabrication so as to be usable for any scientific, medical, agricultural, commercial, or industrial purpose.

**Permit** means a legal authorization to engage in or conduct any or all of the following activities for:

Hazardous wastes — storage, treatment, transport, export, processing, reprocessing, recycling and disposal

Hazardous materials — importation or exportation

**Persistent Organic Pollutants (POPs)** are chemical substances that persist in the environment, bioaccumulate through the food web, can travel long distances, and pose a risk of causing adverse effects to human health and the environment.

**Person or persons** includes any being, natural or juridical, susceptible of rights and obligations or of being the subject of legal relations.

**Pollution** means any alteration of the physical, chemical, biological properties of any water, air and/or land resource of the Philippines, or any discharge thereto of any liquid, gaseous or solid waste, or any production of unnecessary noise, or any emission of objectionable odor, as will or is likely to create or to render such water, air and/or land resources harmful, detrimental or injurious to public health, safety or welfare, or which will adversely affect their utilization for domestic, industrial, agricultural, recreational or other legitimate purposes.

**Pollution Control Officer (PCO)/Environmental Officer** is an officer technically knowledgeable in pollution control and environmental management, performing his/her duties and responsibilities in a particular manufacturing and industrial/commercial establishment and, officially accredited by the DENR to perform such responsibilities.

**Priority Chemicals List (PCL)** is a list of existing and new chemicals that the DENR has determined to potentially pose unreasonable risk to public health, workplace, and the environment.

**Process** means the preparation of a chemical substance or mixture after its manufacture for commercial distribution:

1. In the same form or physical state or in a different form or physical state from that which it was received by the person so preparing such substance or mixture; or
2. As part of an article containing a chemical substance or mixture.

**Reactive.** Reactive wastes are defined as wastes that: (1) are unstable under normal conditions and readily undergo violent change without detonating; (2) react violently with water and create spontaneously explosive mixtures like toxic gases, vapors or fumes; and (3) are capable of detonating.

**Secretary** means the Secretary of the Department of Environment and Natural Resources.

**Solidification** means physical immobilization of hazardous substances, through which the waste is consolidated to reduce the surface area of the waste available for vaporization or leaching.

**Stabilization** means chemical immobilization of hazardous substances, through chemical bonds to an immobile matrix, or chemical conversion to immobile species, thereby reducing vaporization or leaching to the environment.

**TCLP** (Toxicity Characteristic Leaching Procedure) A procedure used to simulate the leaching which a waste will undergo if disposed of in a sanitary landfill. It is applicable to liquid, solid and multiphase sample.

**Toxic.** Toxic wastes are poisonous and have carcinogenic, mutagenic, or teratogenic effects on human or other life forms.

**Transport** includes conveyance by air, water and land.

**TSD (treatment, storage, and disposal) facilities** are the facilities where hazardous wastes are stored, treated, recycled, reprocessed, or disposed of.

**Waste generator** means a person (natural or juridical) who generates or produces hazardous wastes, through any commercial, industrial or trade activities.

**Waste transporter** means a person (natural or juridical) who is licensed to transport hazardous wastes.

**Waste treater** means a person (natural or juridical) who is licensed to treat, store, recycle, or dispose of hazardous wastes.

**Unreasonable risk** means expected high frequency of undesirable effects or adverse responses arising from a given exposure to a substance.

# Chapter 1

## Classification of Hazardous Wastes

Wastes are considered hazardous if they are listed under the Classification of Prescribed Hazardous Wastes (HW) under this Procedural Manual or they exhibit any of the four characteristics, namely: ignitable, corrosive, reactive or toxic based on TCLP.

- (1) The classification of wastes listed in Table 1-1 shall be as hazardous wastes.
- (2) The analysis of extracts shall follow the Toxicity Characteristic Leaching Procedure (TCLP).

Table 1-1 Classification of Hazardous Wastes

Class	Description	Waste Number
<b>A: Wastes with cyanide</b>		
Wastes with cyanide	Waste containing cyanide with a concentration >200 ppm in liquid waste	A101
<b>B: Acid wastes</b>		
Sulfuric acid	Sulfuric acid with pH =< 2.0	B201
Hydrochloric acid	Hydrochloric acid with pH =< 2.0	B202
Nitric acid	Nitric acid with pH =< 2.0	B203
Phosphoric acid	Phosphoric acid with pH =< 2.0	B204
Hydrofluoric acid	Hydrofluoric acid with pH =< 2.0	B205
Mixture of sulfuric and hydrochloric acid	Mixture of sulfuric and hydrochloric acid with pH =< 2.0	B206
Other inorganic acid	Other inorganic acid with pH =< 2.0	B207
Organic acid	Organic acid with pH =< 2.0	B208
Other acid wastes	Acid wastes other than B201 to B208 with pH =< 2.0	B299
<b>C: Alkali wastes</b>		
Caustic soda	Caustic soda with pH >= 12.5	C301
Potash	Potash with pH >= 12.5	C302
Alkaline cleaners	Alkaline cleaners with pH >= 12.5	C303
Ammonium hydroxide	Ammonium hydroxide with pH >= 12.5	C304
Lime slurries	Lime slurries with pH >= 12.5	C305
Other alkali wastes	Alkali wastes other than C301 to C306 pH >=12.5	C399
<b>D: Wastes with inorganic chemicals</b>		
Selenium and its compounds	Includes all wastes with a total Se concentration > 1.0 mg/L based on analysis of an extract	D401
Arsenic and its compounds	Includes all wastes with a total As concentration > 5 mg/L based on analysis of an extract	D402
Barium and its compounds	Includes all wastes with a total Ba concentration > 100 mg/L based on analysis of an extract	D403

Cadmium and its	Includes all wastes with a total Cd concentration > 5	D404
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compounds	mg/l based on analysis of an extract	
Chromium compounds	Includes all wastes with a total Cr concentration > 5 mg/l based on analysis of an extract	D405
Lead compounds	Includes all wastes with a total Pb concentration > 5 mg/l based on analysis of an extract	D406
Mercury and mercury compounds	Includes all wastes with a total Hg concentration > 0.2 mg/l based on analysis of an extract. These also includes organomercury compounds. Refer to CCO.	D407
Other wastes with inorganic chemicals	Wastes containing the following chemicals: <ul style="list-style-type: none"> <li>- antimony and its compounds;</li> <li>- beryllium and its compounds;</li> <li>- metal carbonyls ;</li> <li>- copper compounds;</li> <li>- zinc compounds ;</li> <li>- tellurium and its compounds;</li> <li>- thallium and its compounds;</li> <li>- inorganic fluorine compounds excluding calcium fluoride</li> </ul>	D499
E: Reactive chemical wastes		
Oxidizing agents	Includes all wastes that are known to contain oxidizing agents in concentration that cause the waste to exhibit any of the following properties :  <ol style="list-style-type: none"> <li>1. It is normally unstable and readily undergoes violent change without detonating;</li> <li>2. It reacts violently with water;</li> <li>3. It forms potentially explosive mixtures with water;</li> <li>4. When mixed with water, it generates toxic gases, vapor or fumes in a quantity sufficient to present a danger to human health;</li> </ol> It is a cyanide (CN) or sulfide (S) bearing wastes, which when exposed to pH conditions between 2 and 12.5 can generate toxic gases, vapors and fumes in a quantity that poses a danger to human health	E501
Reducing agents	Includes all wastes that are known to contain reducing agents in concentration that cause the waste to exhibit any of the following properties :  <ol style="list-style-type: none"> <li>1. It is normally unstable and readily undergoes violent change without detonating;</li> <li>2. It reacts violently with water;</li> <li>3. It forms potentially explosive mixtures with water;</li> <li>4. When mixed with water, it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health;</li> </ol> It is a cyanide (CN) or sulfide (S) bearing wastes, which when exposed to pH conditions between 2 and 12.5 can generate toxic gases, vapors and fumes in a quantity that poses a danger to human health	E502

Explosive and unstable chemicals	Includes all wastes that are 1) capable of detonation or explosive reaction when subject to a strong initiating	E503
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	source or when heated under confinement, or 2) capable of detonation or explosive decomposition at a temperature of 20° Celsius and Pressure of 1 atm.	
Highly reactive chemicals	Includes all other wastes that exhibit any of the properties described for D501, D502, and D503.	E599
F: Inks/Dyes/Pigments/Paint /Latex/Adhesives/Organic Sludge		
Aqueous based	Includes all aqueous based wastes that also meet one or more of the sub-categories	F601
Solvent based	Includes all solvent based wastes that also meet one or more of the sub-categories	F602
Inorganic pigments	Includes all wastewater treatment sludge from the production of inorganic pigments	F603
Ink formulation	Includes all solvent washings and sludge, caustic washings and sludge or wastewater and sludge from cleaning of tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing Chromium and Lead.	F610
Other mixed	Includes all aqueous-based wastes that also meet one or more of the subcategories.	F699
G: Waste organic solvent		
Halogenated organic solvents	Includes the ff. spent halogenated solvents: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1, Trichloroethane, carbon tetrachloride, chlorobenzene, 1,2,2 Trichloroethane, chlorinated fluoro-carbons if they contain a <b>total of 10% or more (by volume)</b> of one or more of the above before use; it also includes all still bottoms from recovery of these solvents and solvent mixtures.	G703
Non-halogenated organic solvents	Includes the ff. non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanol, methanol, cresole, cresylic acid, nitro-benzene, toluene, Carbon disulfide, iso-butanol, pyridine, benzene, 2-ethoxy ethanol and 2 nitropropane and other non-halogenated organic solvents if they contain a <b>total of 10% or more (by volume)</b> of one or more of these solvents before use; it also includes all still bottoms from recovery of these solvents and solvent mixtures.	G704
H: Putrescible/Organic Wastes		
Animal/abattoir waste	Includes all wastes from animal feed lots containing an average of 100 or more animals; All wastes from commercial slaughter houses that slaughter an average of 500 or more animals per year ; all waste from poultry farms with an average of 5,000 fowls or more; all waste from facilities that process an average of 2500 fowls or more.	H801
Grease trap wastes from industrial or commercial premises	Includes all establishments that generate an average of 50 kg per day	H802

<b>I: Oil</b>		
Waste oils	Includes all wastes from establishments that generate, transport or treat more than 200 L of waste oil per day except vegetable oil and waste tallow	I101
<b>J: Containers</b>		
Containers previously containing toxic chemical substances	Waste containers that used to hold the toxic chemical substances listed in Classes A, D, E, and L, sub-categories M504 and M505, and the chemicals listed in the Priority Chemical List. Containers that used to contain Polychlorinated biphenyl (PCB) are categorized as L406 and excluded from this sub-category.	J201
<b>K: Immobilized Wastes</b>		
Solidified wastes and polymerized wastes	Wastes whose hazardous substances are physically immobilized by consolidation to reduce the surface area of the wastes in order to meet the waste acceptance criteria	K301
Chemically fixed wastes	Wastes whose hazardous substances are chemically immobilized through chemical bonds to an immobile matrix or chemical conversion to meet the waste acceptance criteria	K302
Encapsulated wastes	Wastes whose hazardous substances are physically immobilized by enveloping the waste in a non-porous, impermeable material in order to store hazardous wastes until such time that a proper disposal facility is available.	K303
<b>L: Organic Chemicals</b>		
Wastes with specific non-halogenated toxic organic chemicals	Non-liquid waste containing the following: - Tri-butyltin - 1,2-diphenylhydrazine benzene	L401
Ozone depleting substances	Waste chlorofluoro carbons (CFCs) and halons. Recovered coolant containing chlorofluoro carbons (CFCs) or halons	L402
PCB wastes	Wastes contaminated with PCB and waste products containing PCB. Refer to CCO.	L406
<b>M: Miscellaneous Wastes</b>		
Pathogenic or infectious wastes	Includes pathological wastes (tissues,organs, fetuses, bloods and body fluids), infectious wastes and sharps	M501
Friable asbestos wastes	Wastes containing friable asbestos. Waste blue and brown asbestos fibers. Refer to CCO.	M502
Pharmaceuticals and drugs	Expired pharmaceuticals and drugs stocked at producers and retailers' facilities.	M503
Pesticides	Waste pesticides other than M505. Includes all wastewater sludge from production of pesticides other than those listed in M505.	M504
POPs (Persistent Organic Pollutants) pesticides	Waste pesticides listed in the Stockholm Convention (POPs Convention) such as aldrin, chlordane, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene, and DDT.	M505

(2) The types of wastes listed in Table 1-2 shall be exempted from the requirements of RA 6969.

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**Table 1-2 Exempted Wastes**

<b>Description</b>
Garbage from domestic premises and households
Industrial and commercial wastewaters which are disposed of on-site through the sewerage system
Industrial and commercial solid wastes which do not contain hazardous wastes as identified in Table 1-1
Materials from building demolition except asbestos
Septic tank effluents and associated sullage wastewaters
Untreated spoils from mining, quarrying and excavation works but not materials in the nature of tailings, commercially treated materials and mine facility consumables

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# Chapter 2

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## Waste Generators

### 2-1 WASTE GENERATOR REGISTRATION

Hazardous Waste Generators are required to submit accomplished registration form(s) as provided in *Appendix "A"* and pay the registration fee to the EMB Regional Office having jurisdiction over the location of the waste generator. A DENR I.D. Number shall be issued by the EMB Regional Office upon registration of hazardous waste generator. Procedural flow attached as Appendix A-1.

Waste generators shall perform the following activities:

1. notify the Department of the type and quantity of wastes generated in accordance with the form and in a manner approved by the Department and pay the prescribed fee; and
2. provide the Department, on a quarterly basis, with information to include the type and quantity of the hazardous waste generated, produced or transported outside in a form as provided for in *Appendix "B"*.
3. continue to own and be responsible for the hazardous waste generated or produced in the premises until the hazardous waste has been certified by the waste treater as adequately treated, recycled, reprocessed or disposed of.
4. prepare and submit to the Department comprehensive emergency contingency plans to mitigate spills and accidents involving hazardous wastes. These plans shall conform with the guidelines issued by the Department.
5. train/inform its personnel and staff on:
  - a. the implementation of the plan, and
  - b. the hazards posed by the improper handling, storage, transport, and use of hazardous wastes and their containers.

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## **REQUIREMENTS FOR PROPER HAZARDOUS WASTE MANAGEMENT**

### **(1) Designation of a Pollution Control Officer**

### **(2) Compliance with storage requirements**

A Hazardous Waste Generator shall comply with the packaging and labeling requirements as provided for in RA 6969.

### **(3) Compliance with pre-transport requirements**

A Hazardous waste generator whose hazardous wastes are transported outside the generator's premises shall comply with the packaging and labeling requirements as provided for in the Implementing Rules and Regulations of RA 6969 and prepare a spill response plan to be handed to the designated waste transporter. The spill response plan includes the following instructions to the waste transporter in the event of an accident:

- a. immediate reporting to the EMB-DENR
- b. securing or containing the affected area
- c. cleaning up spilled or leaked hazardous waste

### **(4) Use of authorized transporters**

A waste generator is required to avail of the services of waste transporters who meet the following criteria:

- a. a waste transporter who is registered with by the DENR; and
- b. a transporter who has an approved Manifest Form to convey the hazardous waste from the waste generator's premises to the designated TSD facility.

### **(5) Compliance with Waste Transport or Manifest System**

A waste generator whose hazardous wastes are transported outside the waste generator's premises is required to comply with the Manifest system .

### **(6) Use of recognized treaters**

A waste generator is required to avail of the services of a waste treater who has a valid Facility Permit from the EMB Central Office to recycle, reprocess, treat, or dispose of the hazardous waste generated or produced at the generator's premises.

### **(7) Confirmation of completion of treatment/disposal**

A waste generator who designates a waste treater to recycle, reprocess, treat, or dispose of his hazardous wastes, shall require the said waste treater to issue a Certificate of Treatment. The certification shall be accompanied by a photocopy of the last page of the waste transport record, as provided in Chapter for 4, signed by all the parties involved.

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## **2-3 EMERGENCY CONTINGENCY PLAN**

All waste generators are required to submit a comprehensive emergency contingency plan to the EMB Regional Office having jurisdiction over the location of the waste generator upon the registration of the waste generator as provided for in Chapter 2-1. The emergency contingency plan shall include at least the following items:

- a. name and responsibility of an emergency response coordinator
- b. name and responsibility of an emergency response team
- c. communication or information network among the:
  - c.1 emergency response team
  - c.2 fire brigade
  - c.3 police
  - c.4 ambulance and medical service
  - c.5 school, hospital and local population (Barangay captain)
  - c.6 LGU officials
  - c.7 national government
- d. evacuation procedure for all personnel on site
- e. emergency response equipment
- f. protective clothes and equipment for all emergency response team members relevant to the type of hazardous waste being handled
- g. emergency transport procedures
- h. temporary closure procedures
- i. training program for all personnel on site to respond to emergency situations

## **2-4 PERSONNEL TRAINING**

### **(1) Training requirements**

All waste generators are required to train their personnel and staff on the following:

- a. waste identification (types and characteristics)
- b. potential hazards of the wastes managed on the premises
- c. proper labeling and storage of hazardous waste including inspection procedures
- d. roles and responsibilities for implementing the emergency contingency plan including response to emergencies (fire, explosion, spill, loss of electricity, evacuation, natural catastrophes, civil disturbance, war, other cases of *force majeure*, etc.)
- e. proper use of emergency equipment (including personnel protective equipment, etc.)
- f. first aid and safety procedures
- g. laws and regulations concerning hazardous waste management

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# Chapter 3

## Waste Transporters

### 3-1 REQUIREMENTS FOR WASTE TRANSPORTERS

A person who wishes to be registered as waste transporter by the DENR shall submit the registration form as provided for in *Appendix "C"*, together with documents indicated below and pay of the prescribed fee to the EMB Central Office.

- a) Business Permit/SEC Registration Certificate
- b) Description/Specification of Conveyance, Details of Transport Service
- c) Photographs of conveyance (inside and outside parts of vehicle)
- d) Sketch/Photograph of a garage
- e) Proof of ownership of vehicle (Contract of Lease and/or Deed of Sale, if applicable)
- f) Certification from the Bureau of Fire Protection, in case of tank lorry Contingency/Emergency Preparedness Plan
- g) Accountability Statement (duly notarized)
- h) Copy of the Certificate of Registration and Official Receipt ( LTO)

If the applicant meets the requirements, the EMB will issue DENR Transporter I.D. Number to the applicant and include the transporter in the "Waste Transporter Register" maintained by the EMB. The transporter is now duly registered with the EMB for a period of one (1) year. Procedural Flow attached as Appendix C-1.

The transporter can now apply for the Permit to Transport at the Regional Office where the treater is located. Procedural flow with requirements attached as Appendix C-2.

#### (1) Responsibilities Of Transporters

- a. The waste transporters are allowed to transport only the type of hazardous wastes identified in their Registration from registered generators to registered TSD facilities.
- b. Transporters shall receive hazardous wastes from a generator with proper manifest form.
- c. Each type of hazardous wastes to be transported should have a Wastes Transport Record or manifest form as provided for in Chapter 4.
- d. The manifest form shall be accompanied by a Spill Response Plan
- e. Transporters shall receive only hazardous wastes which are properly packaged and labeled and shall deliver the same only to a recognized TSD facility allowed to treat or dispose said specific type of hazardous wastes.
- f. In the selection of transport route, the waste transporter must avoid densely populated areas, watershed or catchment areas, and other environmentally sensitive areas.
- g. The transport vehicles shall have warning signs, markings, and other



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- requirements by the Department of Transportation and Communication (DOTC) regarding shipment of hazardous goods
- h. The waste transporter must attach the symbols on the conveyances as provided in Chapter 5.
  - i. The waste transporter is required to deliver the entire quantity of waste accepted from either the waste generator or another waste transporter (if applicable) to the designated TSD facilities listed on the manifest form.
  - j. If the waste cannot be delivered to the destination indicated on the manifest form, the transporter must inform the waste generator. The waste generator will instruct the waste transporter either to return it to the generator or transport it to another TSD facility to which the generator has a previous agreement.
  - k. The waste transporter shall ensure that hazardous waste of different sub-category or different waste generator should not be mixed during the transport, transshipment, and/or storage of the waste.
  - l. The transporter shall immediately notify the DENR through the EMB Regional Office having jurisdiction over the Region in which the waste transporter conveys hazardous waste, the DOTC, the local police, and other parties listed on the emergency contingency plan in case of accidents or spills and clean up the contamination according to the spill response plan provided by the waste generator. The waste transporter must file within ten (10) days a detailed report to the DENR through the EMB Regional Office, describing the accident, spill, and containment or cleanup measures taken.
  - m. The waste transporter may store hazardous waste received from a waste generator at a transfer station for a period not exceeding thirty (30) days. In this case, the transfer station shall meet the technical requirements for a TSD facility.
  - n. An Affidavit of Undertaking specifying responsibilities and liabilities of waste generator, transporter, and treater for clean-up operations and compensation for damages to properties and life in case of spill and other accidents/emergencies is required and should be submitted to the EMB regional offices concerned prior to transport.
  - o. In case of inter-island shipment, the shipping vessel firm should be a party to the required affidavit of undertaking.

Any violation of the above conditions is considered as administrative violation under RA 6969 and subject to penalty as provided for in Chapter 8.

## **(2) Notification of change in information in the registration form**

If there is a change in the information in the registration form, the waste transporter is required to notify the EMB Central Office immediately in writing.

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### **(3) Renewal of registration**

A waste transporter shall renew its DENR Transporter I.D. Number one (1) month prior to the expiration date. Renewal procedure shall follow the initial registration procedure.

In addition to the documents required during the initial registration, the Transporter shall submit a summary of transported hazardous wastes within the previous year. Reports submitted shall also be a basis for the renewal of registration. Inaccuracies in reporting shall be subject to administrative violation and subject to penalty as provided in Chapter 8.

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# Chapter 4

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## Waste Transport Record or Manifest System

### 4-1 WASTE TRANSPORT RECORD (MANIFEST)

#### (1) Waste transport record (manifest) form

A waste transport record (hereafter referred to as manifest) accompanying the hazardous waste while the waste is being transported shall contain the following information and in a form as provided for in *Appendix "D"*:

Section A: Generator Information

- a. Name, address, DENR ID number, and telephone and fax numbers of the waste generator,
- b. Class, sub-classification, and quantity of each hazardous waste
- c. Type of container used during transport
- d. Intended methods of hazardous wastes treatment, storage, recycling, reprocessing, or disposal at TSD facilities
- e. Special Instructions

Section B: Transporter Information

- a. Name, address, DENR Transporter ID number and telephone, fax numbers of wastes transporter
- b. Name/signature, designation of Authorized Representative and date wastes received and shipped by wastes transporter

Section C: TSD Information

- a. Name/address, DENR ID number, and telephone and fax numbers of wastes treater (TSD facility)
- b. Name/signature, designation of Authorized Representative, signature, and date waste received (or shipped) by treater (TSD facility).

### 4-2 WASTE TRANSPORT RECORD (MANIFEST) SYSTEM

#### (1) Manifest system requirements for waste generators

A waste generator who wishes to store, recycle, reprocess, treat or dispose of hazardous waste at a facility outside of the generator's premises is required to:

- a. obtain a manifest form from the EMB Regional Office having jurisdiction over

- 
- the location of the waste generator,
  - b. complete portions referring to the waste generator in the manifest form,
  - c. Hand the hazardous waste to the Recognized Waste Transporter with a copy of the Spill Response Plan and 2<sup>nd</sup> through 6<sup>th</sup> copies of the manifest,
  - d. retain and store the 1<sup>st</sup> copy of the manifest for twenty four (24) months from the date of receipt of the copy of the manifest by the Regional Office having jurisdiction over the location of the wastes generator.
  - e. confirm the designated waste treater's acceptance of the hazardous waste by receiving the 4<sup>th</sup> copy of the manifest from the designated waste treater. If the waste generator does not receive the copy **within thirty (30) days** from the date on which the waste was received by the first waste transporter, the generator must contact the waste transporter and the designated waste treater to determine the whereabouts of the hazardous waste and make either the waste transporter convey the waste to the designated waste treater or the waste treater send the signed manifest, and
  - f. confirm the designated waste treater's completion of recycling, reprocessing, treatment, or disposal of the hazardous waste by receiving a certification of completion issued by the designated waste treater with a photocopy of the 6<sup>th</sup> copy of the manifest attached.

## **(2) Manifest system requirements for waste transporters**

A waste transporter who conveys hazardous waste from a waste generator to the designated waste treater is required to:

- a. Compare the label on the containers of hazardous waste against the manifest,
- b. Affix signature and date on the six copies of the manifest prepared by the generator,
- c. Receive the 2<sup>nd</sup> through 6<sup>th</sup> copies of the manifest, hazardous waste, and the spill response plan from the waste generator,
- d. Place the manifest in the driver's cabin of the vehicle,
- e. Respond properly to the Spill Response Plan and the Emergency Contingency Plan in case of accident; immediately contain the spillage and notify the EMB Regional Office having jurisdiction over the location where the accident occurred if the accident results in the spillage or release of the hazardous waste to the environment,
- f. Make the designated waste treater sign and date the 3<sup>rd</sup> though 6<sup>th</sup> copies of the manifest,
- g. take the 2<sup>nd</sup> copy of the manifest, and
- h. hand the hazardous waste and the 3<sup>rd</sup> through 6<sup>th</sup> copies of the manifest to the designated waste treater.

If a waste transporter hands the hazardous waste to another waste transporter, the first waste transporter is required to:

- a. make the other transporter affix sign and date on the 2<sup>nd</sup> through 6<sup>th</sup> copies of the manifest,
- b. take the 2<sup>nd</sup> copy of the manifest, and
- c. hand the hazardous waste, the 3<sup>rd</sup> through 6<sup>th</sup> copies of the manifest, the spill

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response plan to the other transporter.

If the waste transporter receives the hazardous waste from another waste transporter and hands the waste to the designated waste treater, the second waste transporter is required to:

- a. Check the label on the containers of hazardous waste against the manifest,
- b. Affix signature and date on the 3<sup>rd</sup> through 6<sup>th</sup> copies of the manifest,
- c. receive the hazardous waste, the 3<sup>rd</sup> through 6<sup>th</sup> copies of the manifest, and the spill response plan,
- d. Place the manifest in the driver's cabin of the vehicle,
- e. Respond properly to the Spill Response Plan and the Emergency Contingency Plan in case of accident; immediately contain the spillage and notify the EMB Regional Office having jurisdiction over the location where the accident occurred if the accident results in the spillage or release of the hazardous waste to the environment,
- f. Make the designated waste treater affix signature and date the on 3<sup>rd</sup> through 6<sup>th</sup> copies of the manifest,
- g. Take 3<sup>rd</sup> copy of the manifest and
- h. Hand the hazardous waste and the 4<sup>th</sup> through 6<sup>th</sup> copies of the manifest to the designated waste treater.

### **(3) Manifest system requirements for waste treaters**

A waste treater or TSD Facility who receives hazardous waste from a waste generator through a waste transporter is required to:

- a. Verify the accuracy of the waste description (If the hazardous waste data are inaccurate, immediately inform the generator. The waste treater has the right to deny the acceptance of the hazardous waste),
- b. Affix signature and date on the 4<sup>th</sup> to 6<sup>th</sup> copies of the manifest
- c. Send the 5<sup>th</sup> copy of the manifest to the EMB Region Office having jurisdiction over the location of the waste generator and the 4<sup>th</sup> copy to the waste generator within five (5) days after the acceptance of the hazardous waste,
- d. Take the 6<sup>th</sup> copy of the manifest and keep it for twenty-four (24) months after the receipt of the hazardous waste, and
- e. Treat the wastes within **six (6) months** upon receipt.

### **(4) Certification of completion of treatment/disposal**

A waste treater shall issue a certification of completion of recycling, reprocessing, treatment, or disposal of hazardous waste with an attached photocopy of the last page of the manifest signed by all the parties involved. The wastes should be treated within six months after receipt of hazardous wastes. Issuance of certificate of treatment shall not be later than six (6) months after receipt of wastes.

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#### **4-3 WASTES TRANSPORT RECORD (MANIFEST) FEE:**

A waste transport record (also referred to as manifest form) shall be secured from the EMB Regional Office having jurisdiction over the location of the wastes generator after payment of the prescribed fee.

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# Chapter 5

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## Hazardous Waste Storage and Labeling

### 5-1 STORAGE FACILITIES

#### (1) Responsibilities of Generators and Treatment, Storage and Disposal (TSD) Facilities

- a. The Pollution Control Officer/Environmental Officer designated by the hazardous waste generator or TSD facility shall be responsible for the management of the storage facility;
- b. The Hazardous Waste Generator/TSD facility shall ensure that all movement of hazardous wastes, toxic substances and treated materials in and out of the storage facility shall be properly documented;
- c. The Hazardous Waste Generator/TSD facility shall ensure that the requirements of classification, packaging and labeling of hazardous wastes, toxic substances and treated materials shall be complied with.

#### (2) Minimum Requirement for Hazardous Waste Storage Facilities

It must be accessible in cases of emergency and for purposes of inspection and monitoring;


The facility should be enclosed but adequately ventilated;

- c. The floors should be impermeable to liquids and resistant to attack by chemicals, not slippery and should be constructed so as to retain spillages;
- d. The facility should be properly secured and not easily accessed by unauthorized persons;
- e. Drums should preferably be stored upright on pallets and stacked no more than four (4) drums high;
- f. Drums should be raised on pallets or similar structures to allow passage of water and circulation of air;
- g. All containers should be checked regularly for leaks;
- h. There should be segregation of acids from bases and other hazardous wastes; and
- i. There should also be segregation of non-treated from treated hazardous wastes.

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### **(3) Types of vessels, containers, tanks and containment buildings used for storage of hazardous waste**

Vessels, containers, tanks and buildings used for storage of hazardous waste include:

1. metal drum (with a lid or a cap)
2. plastic container
3. metal container
4. cloth container
5. container van
6. tanker truck
7. built tank
8. containment building/warehouse (completely enclosed structure with four walls, a roof, and a floor used to store non-containerized waste, such as bulky and high volume non-liquid waste)
9. settling ponds not used as treatment of wastewater 

## **5-2 LABELLING REQUIREMENTS**

### **(1) Form of labels attached to vessels, containers, tanks and containment buildings**

All storage facilities enumerated in 5-1 C should be labeled as specified below:

1. The size of the label is minimum 20cm x 30cm.
2. The color of the label is yellow for background and black for letters conspicuously marked in paint or other permanent form of marking
3. The material of the label should be scratch proof and resistant to tampering and weathering.
4. The basic form is provided in Table 5-1.
5. The label is accompanied by a symbol corresponding to characteristics of the hazardous waste contained in the vessel, container, or tank as specified in 6-2 of this Chapter.

Proper labeling should be done at the waste generator's facility and should be retained up to the TSD facility. In case of export, additional label as required by international standard should be attached.



**Table 5-1 Basic form of the label attached to vessels, containers, and tanks containing hazardous waste**

<b>HAZARDOUS WASTE</b>		
Waste Information	HW Class	Name of the hazardous waste class as specified in the revised Table 1 of Chapter 2
	HW Description	Name of the hazardous waste description as specified in the revised Table 1 of Chapter 2
	HW Number	Code of the hazardous waste description as specified in the revised Table 1 of Chapter 2
	Characteristic	Toxic, Corrosive, Flammable, Explosive, Reactive, and/or Infectious
	Form	Liquid, Solid, or Sludge
	Volume	Volume of the hazardous waste contained in the vessel, container, or tank.
	Packaging date	Date on which the hazardous waste is packed in the vessel, container, or tank.
	Shipping date	Date on which the hazardous waste must be removed from the storage area and transported off site if applicable
	Waste transport record number	Manifest number if transported off site
Container Information	Capacity	Maximum capacity or volume of the container
	Material	Materials that a vessel, container, or tank is made of
Generator Information	ID number	ID number issued by DENR upon registration
	Name	Name of the waste generator (company name)
	Address	Address of the waste generator
	Telephone #	
	Fax #	
	Name of HWMS	Name of hazardous waste management supervisor (HWMS)

**(2) Position of the label attached to vessels, containers, and tanks**

The label shall be attached to the side of the vessel, container, and tank. If the vessel, container, or tank is used repeatedly, the label can be a plate and hung on the side of the vessel, container or tank that stores hazardous wastes. In case of a containment building, all the types of hazardous wastes contained in the building should be included in the plate.

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### 5-3 SYMBOLS ACCOMPANYING THE LABEL

The following symbols should accompany the label representing the types of hazardous wastes:

#### **a. Explosive**

Any substance or article which is designed to function by explosion, or which, by chemical reaction within itself, is able to function in a similar manner even if not designed to function by explosion. See Figure 1.

#### **b. Flammable (Ignitable)**

Liquid: any liquid having a flash point of not more than 60.°C, closed-cup test, or 65.6° C, open-cup test. See Figure 2a.

Solid: any of the following three types of materials: wetted explosives that when dry are explosives; self-reactive materials that are liable to undergo, at normal or elevated temperatures, a strongly exothermal decomposition caused by excessively high transport temperatures or contamination; or readily combustible solids that may cause a fire through friction, show a burning rate faster than 2.2 mm per second, or be ignited and react over the whole length of a sample in 10 minutes or less. See Figure 2b.

\*Pyrophoric materials (solid or liquid) that, even in small quantities and without an external ignition source, can ignite within five minutes after coming in contact with air; or self-heating materials that, when in contact with air and without an energy supply, are liable to combustion.

#### **c. Reactive or Oxidizing**

A material that may, generally by yielding oxygen, cause or enhance the combustion of other materials.

Any organic compound containing the bivalent -O-O- structure, that is thermally unstable and can undergo exothermic self-accelerating decomposition. See Figure 3.

#### **d. Toxic**


A substance which, if it is inhaled or ingested or if it penetrates the skin, may involve serious acute or chronic health risks including carcinogenicity, teratogenicity, and mutagenicity on human and other life forms. See Figure 4.

#### **e. Corrosive**

A liquid or solid that causes visible destruction or irreversible alterations in human skin tissue at the site of contact, or a liquid that has a severe corrosion rate on steel or aluminum. See Figure 5.

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## f. Infectious or pathogenic

Containing a viable microorganism (or its toxin) which is known or suspected to cause disease in humans or animals. See Figure 6. 

### (1) Specifications of Symbols

1. The minimum size of the symbol is 25 cm x 25cm for vessels, containers, and tanks and 30cm x 30cm for conveyances carrying vessels, containers, and tanks.
2. Basic shape of the symbols is a square rotated 45 degrees to form a diamond.
3. At each of the four sides, a parallel line shall be drawn to form an inner diamond 95 % of the outer diamond.
2. The color should follow the colors specified in the figures below.

Figure 1. Explosive



Figure 2a. Flammable Liquid



Figure 2b. Flammable Solid



Figure 3. Reactive



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Figure 4. Toxic



Figure 5. Corrosive



Figure 6. Infectious



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### **(3) Position of the symbol attached to vessels, containers, and tanks**

#### **a. Vessels, containers, and tanks**

The label shall be attached to the side of the vessel, container, and tank. If the vessel, container, or tank is used repeatedly, the label can be a plate and hung on the side of the vessel, container or tank that stores hazardous wastes. In case of a containment building, all the types of hazardous wastes contained in the building should be included in the plate.

#### **b. Conveyances carrying the vessels, containers, and tanks**

The conveyances transporting hazardous waste shall place the corresponding symbols on its side and back.

## **5-4 PACKAGING REQUIREMENTS**

### **(1) Requirements for vessels, containers, and tanks**

Vessels, containers, and tanks used for storage of hazardous waste shall be required to:

1. be in good condition without leaks or damage,
2. made from materials suitable for the characteristics of the hazardous waste to be stored,
3. be equipped with a strong lid or cap to prevent spillage during the transport.

### **(2) Packaging procedures**

A person who is packaging hazardous waste in a vessel, container, or tank is required to:

1. ensure that each vessel, container, or tank contains either only one type of waste or, when mixed, consist only of types of wastes with similar or mutually compatible characteristics (usually within a hazardous waste sub-category);
2. for self-reacting hazardous wastes, ensure that voids are not left in the vessel, container, or tank;
3. tightly seal hazardous waste in the vessel, container, or tank; and
4. ensure that the used vessel, container and tank is cleaned before being reused for storing the hazardous waste incompatible with that previously stored.

# Chapter 6

## Waste Treaters and TSD Facilities

Section 30 of DAO 92-29 providing basic requirements for waste treaters and TSD facilities is hereby amended as follows:

### 6-1 REQUIREMENTS FOR TSD FACILITIES

A person who wishes to treat, store, recycle, reprocess or dispose of hazardous wastes is required to:

- a. secure a TSD Facility Permit from the EMB Central Office;
- b. designate a Pollution Control Officer (PCO)/Environmental Officer;
- c. comply with the waste acceptance requirements and the Manifest System;
- d. provide initial wastes acceptance procedure to ensure that the TSD facility shall not accept wastes beyond its capacity (including quantity and quality);
- e. submit residuals management plan including results of analysis of all hazardous wastes treated, recycled and recovered;
- f. conduct periodical (*quarterly*) inspection of the TSD facility in order to maintain proper function of the TSD facility;
- g. prepare and implement an emergency contingency plan;
- h. train its personnel and staff on the implementation of the emergency contingency plan and the hazard posed by improper handling, transport, and use of chemical substances and their containers; and
- i. submit a quarterly report on operation practices of the TSD facility to the EMB Central Office. -

The EMB shall monitor compliance of the TSD facilities to the above-mentioned requirements.

### 6-2 Categories of TSD Facilities

#### Waste Treatment, Storage and Disposal Facilities

1. No waste treater shall accept, store, treat, recycle, reprocess or dispose of hazardous wastes unless done in the facilities as prescribed in Table 3 below and permitted by the Department.

**Table 3 Prescribed Waste Treatment Facilities**

Category	Description
A	Facilities that conduct on-site disposal of hazardous wastes generated within the facility through industrial or commercial processes and activities other than disposal via sewer
B	Commercial or industrial hazardous waste thermal treatment facilities. Facilities include those that conduct off-site thermal treatment (i.e. pyrolysis,

	autoclave, microwave and sterilization)
C	Landfills that accept hazardous waste for disposal. Facilities that accept only inert hazardous waste residues for final disposal and not located on the waste generator's facilities.
D	Facilities that recycle or reprocess hazardous waste which are not generated or produced at the facility. Facilities include those that receive offsite of hazardous waste and recover valuable materials from the hazardous wastes, use hazardous waste as input materials or fuel for production, or produce compost by biological treatment of hazardous waste. It also includes, but are not limited to, facilities that regenerate oil and solvents and recover metals from hazardous wastes.
E	Facilities that immobilize, encapsulate, polymerize or treat hazardous wastes off-site. Facilities include those that receive hazardous waste outside the premises and transform physical and/or chemical characteristics of the hazardous waste by physicochemical or thermal treatment in order to dispose of them into the facilities in Category C:  E-1 Facilities to solidify sludge, ashes, and other hazardous wastes E-2 Facilities to melt and solidify inorganic sludge, ash, and other inorganic hazardous wastes E-3 Physicochemical treatment facilities including neutralization, oxidation, and reduction of waste acid, waste alkali, or waste solution containing cyanide or chromium E-4 Facilities to thermally decompose waste containing cyanide E-5 Facilities to decompose PCB E-6 Facilities to chemically treat infectious waste E-7 Facilities to rinse containers that used to contain hazardous waste
F	Facilities that store hazardous wastes, which were not generated at that facility Facilities include those that store hazardous waste generated offsite awaiting treatment, disposal or export  F-1 Open space to place containers, vessels, or tanks containing hazardous waste F-2 Buildings to store containers, vessels, or tanks containing hazardous waste F-3 Built tanks to store liquid hazardous waste

2. An application for issuance or amendment of a permit under this section shall be made in accordance with a form and in a manner approved by the Department accompanied with the payment of the prescribed fee and accompanied by such plans, specifications and other information and a summary thereof as may be required by the Department.

3. The Department shall maintain a register of waste treaters.

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### **6-3 TSD FACILITY PERMIT**

A person who wishes to operate a TSD facility is required to obtain a TSD Facility Permit prior to commencement of operation in conjunction with Environmental Compliance Certificate issued under DAO 96-37. The TSD Facility Permit shall be valid for one (1) year.

#### **(A) Requirements for establishing a TSD Facility**

A person who wishes to establish a TSD facility shall submit the following requirements:

1. Environmental Compliance Certificate (ECC) or Initial Environmental Examination (IEE) under DAO 96-37 for the TSD facility has been secured;
2. A prospective waste treater has financial resources (*i.e. letter of credit, surety bond, trust fund*) to conduct proper hazardous waste treatment continuously and to cover liability for accidents

#### **(B) Requirements for the issuance of a TSD Facility Permit**

After the construction of the TSD facility, an applicant shall submit the following documents and the payment of the prescribed fee to the EMB Central Office prior to the issuance of the TSD Facility Permit:

- a) Duly accomplished *Application Form* show for in Appendix E.
- b) Emergency/Contingency Plans including Abandonment Plan
- c) Process flow and detailed description of each treatment/recycling/disposal process technologies including overall material balance identifying all/by-products, and end-products and residues
- d) Storage Management Plan for raw materials, residues, by products and end-products
- e) Long-term plan for the recycled/processed/end-product
- f) Accountability statement, duly notarized

#### **For New TSD Facilities**

1. If the applicant meets all the requirements, the EMB Central Office shall within twenty (20) days upon receipt of the requirements, evaluate the documents; conduct an inspection of the TSD facility; and issue/deny the permit.
2. The permit may either a:
  - a. Temporary Facility Permit to allow a trial burn or test run for facilities in Categories B and E; or
  - b. Regular Facility permit.

Please refer to Procedural Flowchart Appendix E-1.



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### **For Existing TSD facilities**

Operators of the TSD facilities which are already in existence or for which an ECC has already been issued before this Procedural Manual is adopted (hereinafter referred to as existing TSD facilities) are required to apply for a Facility Permit within 30 days after the approval of this Procedural Manual. The applicant should submit documents and data (air and water monitoring data) to verify that the existing facility complies with DENR emission and effluent standards.

If the applicant meets all the requirements, a Facility Permit shall be issued within twenty (20) days after filing of the application.

### **(C) Requirements for Renewal of a TSD Facility Permit**

A waste treater who wishes to renew the Facility Permit shall submit the accomplished application form shown for in *Appendix "E"* together with a receipt of payment;

### **(D) Conditions to Amend a TSD Facility Permit**

A waste treater shall apply for amendment of a TSD Facility Permit to the EMB Central Office when the waste treater wishes to change any of the following:

- a. Hazardous waste types that the TSD facility will accept without changes in treatment processes;
- b. Capacity of the facilities to treat, store, recycle, or dispose of hazardous waste at the permitted TSD facility in Category D, E and F other than those required the test run;
- c. Operation plan (length of operation, closure plan, or post-closure plan)

The waste treater shall apply in writing and submit the above-mentioned information to the EMB Central Office.

### **(E) Cancellation of a TSD Facility Permit**

The following shall be grounds for the TSD Facility Permit cancellation:

- a. Failure to comply with the permit conditions;
- b. Failure to pay the penalties and fines imposed for violation of RA 6969 and its IRR.

## **6-4 WASTE ACCEPTANCE**

The waste treater should reject and return the waste load to the generator named on the manifest if any of the waste acceptance requirements is in question or not in place. Interim storage at the TSD facility (that is, storage until the issue is resolved) is **not** permitted.

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**(1) Waste acceptance requirements**

A shipment of hazardous waste cannot be considered acceptable and received at a TSD facility unless all the following requirements are in place at the time of arrival of the waste at the TSD facility:

- a. Proper manifest(s) must accompany the shipment (written and certified documents from generator to transporter and to TSD facility).
- b. The containers are properly labeled as to the type of wastes and any of its potential hazards.
- c. An independent random analysis undertaken by the TSD facility to verify the type of hazardous waste indicated in its manifest.
- d. The waste is transported by a licensed and registered hazardous waste transporter.
- e. The waste type (class and description) and mode of treatment has been approved by the DENR EMB Central Office as indicated in the permit

# Chapter 7

## Import of Recyclable Materials Containing Hazardous Substances and Export of Hazardous Wastes

Recyclable materials containing hazardous substances which are allowed for importation under DAO 94-28 and DAO 97-28 are scrap metals, solid plastic materials, electronic assemblies and scrap, and used oil. Hazardous Wastes are allowed to be exported for treatment/disposal only to countries which are Parties to the Basel Convention on the Transboundary Movement of Hazardous Wastes

Import and export of hazardous substances are approved by the DENR through the EMB Central Office when all the requirements indicated below are met. The import/export clearance shall be issued after the consent of the importing and exporting countries have been received by the EMB. An import clearance shall have a validity of six (6) months. Unless otherwise specified by the approval of the importing country, an export clearance shall also have a validity of six (6) months.

### 7-1 IMPORT/EXPORT REQUIREMENTS

#### (1) Requirements for importers of recyclable materials containing hazardous substances

All importers of recyclable materials containing hazardous substances shall be required to:

- a. register with the DENR through the EMB as importer of hazardous substances as provided by DAO 94-28 (Appendix F-1);
- b. prepare the emergency contingency plan;
- c. designate a Pollution Control Officer (PCO);
- d. secure an Importation Clearance (IC) prior to actual importation as provided by DAO 94-28;
- e. comply with the Transport Record or Manifest System to convey the imported recyclable materials from the port to the importer's premises after securing an Importation Clearance;;
- f. comply with the labeling and packaging requirements;
- g. make hazardous wastes and recyclable materials containing hazardous substances accompanied by the movement document as provided for in this Chapter from the point at which a transboundary movement commences to the point of disposal;
- h. secure a TSD facility Permit (Category F: Storage Facilities) as provided for in Chapter 6 prior to importation in case the importer holds the imported recyclable materials containing hazardous substances for periods exceeding thirty (30) days; and
- i. require exporter from the country of origin to notify the EMB as per Basel Convention Notification Form through the Competent Authority of the exporting countries.

**(2) Requirements for exporters of hazardous waste or recyclable materials containing hazardous substances**

All exporters of hazardous wastes shall be required to:

- a. Submit notification through the EMB for transmittal to the Competent Authority of the importing and transit countries;
- b. designate a Pollution Control Officer (PCO);
- c. comply with all the requirements of the Basel Convention on the Transboundary Movement of hazardous Wastes;
- d. comply with the transport record or manifest system to convey the exporting hazardous waste and recyclable materials containing hazardous substances from the generator to the port of embarkation after securing an Exportation Clearance and Permit;;
- e. comply with the labeling and packaging requirements;
- f. require that the shipment be accompanied by the movement document from the point at which a transboundary movement commences to the point of disposal;
- g. written consent on the transboundary movement of hazardous waste and/or recyclable materials containing hazardous substances from each State of transit, if applicable;
- h. written confirmation of the existence of a contract between the exporter and the disposer specifying environmentally sound management of the wastes in question from the State of import;
- i. written confirmation of the existence of financial guarantee to cover cost for re-import or other measures that may be needed

**(3) Flow of processing the applications**

(Refer to *Appendix "F"*)

# Chapter 8

## Prohibited Acts and Penalties

### 8-1 ADMINISTRATIVE VIOLATIONS

Administrative violations as provided for under Section 41 of DAO 92-29 related to hazardous waste management is hereby amended to include but not limited to the following:

a) failure to provide appropriate information to the DENR upon registration;	PhP 10,000.00
b) submission of documents containing false information;	PhP 50,000.00
c) failure to comply with reporting requirements under the law;	PhP 10,000.00
d) failure to comply with the conditions of a permit, except those specified herein;	PhP 50,000.00/ condition violated
e) failure to comply with labeling requirements;	PhP 50,000.00
f) failure to place placards on the conveyance/vehicle	PhP 50,000.00
g) failure to comply with the subpoena or subpoena duces tecum issued by the Secretary or his duly authorized representative	PhP 50,000.00

In addition to the above common violations, the following shall apply to:

#### Waste generators:

a) failure to submit a completed copy of the Hazardous Waste Manifest Form to the DENR;	PhP 50,000.00
b) performs the functions of a TSD Facility without the appropriate TSD Facility Permit	PhP 50,000.00

#### Waste transporters:

a) conveys or transports hazardous wastes without the proper manifest forms;	PhP 50,000.00
b) conveys or transports hazardous wastes without the proper labels and placards	PhP 50,000.00

**TSD Facilities:**

a) accepts hazardous wastes without the proper manifest;	PhP 50,000.00
b) stores, recycles, reprocesses, treats or disposes of hazardous wastes at a TSD facility without the appropriate TSD facility permit;	PhP 50,000.00
c) failure to notify the DENR of the residuals generated as a consequence of its recycling, reprocessing or treatment activities	PhP 10,000.00

**Importers and Exporters:**

a) importing recyclable materials containing hazardous substances without securing import clearance from the DENR;	PhP 50,000.00
b) exporting hazardous wastes or materials containing hazardous substances without securing an export clearance from the DENR	PhP 50,000.00



# Chapter 9

## Monitoring

The EMB Central Office shall serve as the oversight agency and shall resolve all cases of non-compliance with transport manifest requirements and appropriate treatment and disposal procedures.. It shall also monitor the importation/exportation of recyclable materials containing hazardous substances in the country.

The EMB Regional Offices shall monitor the transport/movement of hazardous waste based on submitted Waste Generator Registration Form, Transport Manifest, Quarterly Report, TSD Annual Report, Certificate of Treatment and other document submitted by Generators, Transporters and TSD facilities. The EMB Regional Offices shall also conduct actual inspection of facilities.

The EMB Regional offices shall regulate the issuance of Transport Manifest and monitor compliance thereof. The manifest shall only be issued to Generators after the payment of the prescribed fees and submission of pertinent documents.

# Chapter 10

## Schedule of Fees

The following shall be prescribed fees for the various activities related to Republic Act 6969. In this regard, paragraph B of DENR Memorandum Circular No. 2000-12 is hereby amended as follows;

### Title III (Hazardous Waste)

1. Registration of hazardous waste generators	P600.00/generator
2. Annual Registration of Transporters	P500.00/vehicle
3. Issuance of Manifest Form	P100.00/manifest P500.00/hazardous material
4. Application fee for Notification of the Export of Hazardous Wastes	P500.00/notification
5. Registration Fee	P15,000/facility
6. TSD Facility Permit	P5,000.00/facility
7. Issuance of an Export Clearance	P2,000.00/clearance
8. Issuance of an Importation clearance	P2,000.00/clearance
9. Registration of Importer of HW	P5,000.00

As such the above fees shall be collected by the Authorized Collecting Officers of the Environmental Management Bureau upon release of the registration certificate/permit/clearance.



**Form A : Registration form for HW Generator**

<b>Section A1. General Information of Generator</b>						
1. DENR ID: *		2. Date of issued (D/M/Y): / /		*1		
3. Name of Firm:						
4. Plant Address:						
5. Date of Establishment:						
6. Tel:			7. Fax:			
8. Office Address:						
9. Tel:			10. Fax:			
10. Pollution Control Officer:						
11. Tel:		12. Fax:		13. e-mail:		
14. General Description of Business/Operation						
Philippine Standard Industrial Classifications			15. Primary:		16. Secondary:	
16. Major Products:	1.		4.			
	2.		5.			
	3.		6.			
17. Authorized Capitalization (Pesos/year)						
18. Paid-up Capitalization (Pesos/year)						
19. Approximate Annual Turn-over (Pesos/year)						
20. Total No. of Employees:		21. Admi. Employees:		22. Plant Employees:		
23. ECC Number:		24. Date Issued:		25. Place Issued:		
26. P/O Number/Date		27. Place Issued:		28. PCO Date of Accreditation:		
<p>Please append the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> (1) Process flow diagram all waste streams</li> <li><input type="checkbox"/> (2) Mass balance of manufacturing process</li> <li><input type="checkbox"/> (3) Description of existing waste management plan</li> <li><input type="checkbox"/> (4) Analysis of waste(s)</li> <li><input type="checkbox"/> (5) Other relevant information e.g. planned changes in production processes or output, comparison with related operations.</li> <li><input type="checkbox"/> (6) If on-site treatment is present, submit the <b>A4</b> form for every TSD facility.</li> </ul>						
I certify that the enclosed information is a true and accurate record as available.						
Pollution Control Officer:						
Signature:				Date (D/M/Y): / /		

\*1: to be filled up by EMB

<b>Section A2. Waste Generation Per Year by Type of Waste (Approximately)</b>							
1. HW No.	2. Waste name & description	3. HW Nature	HW Cataloging				8. Total Volume (ton/year)
			4. Toxic	5. Corrosive	6. Reactive	7. Flammable	

HW Nature: **Lq** = Liquid, **So** = Solid, **Sl** = Sludge, **Ga** = Gases

**Section A3. Waste Storage, Transport, Treatment and Disposal**

1. HW No.	2. TSD Location*1	3. Volume (ton/year)	4. Storage Method*2	Transporter		Treater			Disposal		
				5. ID No.	6. Name	7. ID No.	8. Name	9. Method	10. ID No.	11. Name	12. Method

\*1 TSD Location: On-site or Off-site

\*2 Storage Method: D

**A4. Information of HW Treatment Premises**

1. DENR ID:	2. Date of issued (D/M/Y):        /    /		
3. Name of Firm:			
4. Address of TSD:			
5. Treatment method and Capacity: A: Physico-Chemical treatment B: Thermal treatment C: Solidification D: Storage E: Disposal F: Recycle			
Method	Date of permit to operate	Treatment Capacity (ton/day)	Type of HW can be treated
	/    /		
	/    /		
	/    /		
	/    /		
	/    /		
Please append the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> (1) Process flow Diagram and detailed description of each treatment/recycling process identifying all/by-products, end-products and residues</li> <li><input type="checkbox"/> (2) Storage management plan for raw materials, residues, by-products and end-products</li> <li><input type="checkbox"/> (3) Photograph/s of the facilities showing processing areas, storage areas</li> </ul>			

**Hazardous Waste Generators Quarterly/Annual Report Form**

<b>Section A: General Information of Generator</b>			
1. DENR ID:		2. Date of issued (D/M/Y):        /        /        *1	
3. Name of Firm:			
4. Plant Address:			
5. Tel:		6. Fax:	
7. Pollution Control Officer:			
8. Tel:		9. Fax:	10. e-mail:
I certify the enclosed information is a true and accurate record as available.			
Pollution Control Officer			
Signature:		11. Date of submission        /        /	

Note1: Please use the symbols defined as follows to fill in the section B,C.

- HW nature:            Lq=Liquid, So=Solid, Sl=Sludge, Gs=Gases
- HA Cataloging:      T=Toxic, C=Corrosive, R=Reactive, F=Flammable
- TSD Location:        On-site=within the plant site, Off-site=Outside of the plant site
- Storage Method:     B= Bag, D=Drum, C=Can/pail/carbuoy/bottle etc., P=Pile, T=Tank,  
R=Reservoir/pond/basin/lagoon
- Treatment method: A=Physico-Chemical treatment, B=Thermal treatment, C=Solidification  
R=Recycle
- Disposal method:    L=Landfill, D=Discharge(after neutralization)





### Section D: On-Site Self-inspection of Storage Area

Date conducted	Premises Area inspected	Findings & Observations (spill, Leaks, etc.)	Corrective Action taken

### Section E: Accidents & Emergency Record

Date occurred	Area of the premise involved	Nature of the accident & emergency	Corrective Action taken

### Section F: Personnel Training

Date conducted	Course Description	No. of personnel trained

### Section G: Waste Minimization Activities

Has a pollution management appraisal been conducted at the premise?

Yes	Date (DD/MM/YY)	
No	Scheduled for future date (DD/MM/YY)	

Describe the waste minimization programs undertaken by the premise (attach a separate page if space is needed)


### Section H: Certification

Prepared by:

Printed Name	Signature	Position	Date
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**Form C : Registration form for HW Transporter****Section C1. General Information of Transporter**

1. DENR ID:		2. Date of issued (D/M/Y):        /    /	
3. Registered Company Name:			
4. Address:			
5. Date of Establishment:			
6. Tel:		7. Fax:	
8. Name of contact person:			
9. Tel:		10. Fax:	11. e-mail:
12. General Description of Business/Operation			
13. Authorized Capitalization (P/year):			
14. Paid-up Capitalization (P/year):			
15. Total Employees:	16. Admin. Employees:	17. Number of Drivers	
18. ECC Number:	19. Date Issued:	20. Place Issued:	
21. P/O Number:	22. Date Issued:	23. Place Issued:	
24. Name of PCO	25. Accreditation Number	26. Date of Accreditation	
18. Type of waste to be transported			
Please append the following: <ul style="list-style-type: none"><li><input type="checkbox"/> Business Permit approved by Department of Trade and Industry (DTI) and SEC Registration Certificate</li><li><input type="checkbox"/> Description/Specification of Conveyance, Details of Transport Service</li><li><input type="checkbox"/> Photographs of conveyance (inside and outside parts of vehicle)</li><li><input type="checkbox"/> Sketch/Provision of a garage</li><li><input type="checkbox"/> Proof of ownership of vehicle (Contract of Lease and/or Deed of Sale, if applicable)</li><li><input type="checkbox"/> Certification from the Bureau of Fire Protection, in case of tank lorry</li><li><input type="checkbox"/> Contingency/Emergency Preparedness Plan</li><li><input type="checkbox"/> Accountability Statement (duly notarized)</li><li><input type="checkbox"/> Copy of the Certificate of Registration and Official Receipt ( LTO)</li></ul>			
I certify that enclosed information is a true and accurate record as available.			
Contact Person:			
Signature:		Date(D/M/Y)    /    /	



**Section C2. Transport Capacity**

Description of vehicle for HW transportation			No. of vehicles:		
1. Plate No.	2. Maker	3. Year	4. Type <sup>*1</sup>	4. Capacity (ton)	Own/Lease

I certify that enclosed information is a true and accurate record as available.

Contact Person:

Signature: \_\_\_\_\_ Date(D/M/Y)    /    /

\*1 Type of vehicles: FB=Flat Body, CFB=Closed type of FB, TL=Tank lorry, DT= Dump truck

**UNIFORM HAZARDOUS WASTE MANIFEST FORM****Page 1/2****Section A: Generator**

Hazard Waste Generator's Name:

DENR ID No :

Generator's Address:

Tel No :

Fax No :

Wastes Class and Wastes Number (check appropriate wastes classification and indicate wastes number in the space provided)		Quantity
<input type="checkbox"/> A. Wastes with Cyanide _____	<input type="checkbox"/> H. Putrescible/ Organic Wastes _____	
<input type="checkbox"/> B. Acid Wastes _____	<input type="checkbox"/> I. Oil _____	
<input type="checkbox"/> C. Alkali Wastes _____	<input type="checkbox"/> J. Containers _____	Date of Transport
<input type="checkbox"/> D. Wastes with Inorganic Chemicals _____	<input type="checkbox"/> K. Immobilized Wastes _____	
<input type="checkbox"/> E. Reactive Chemical Wastes _____	<input type="checkbox"/> L. Organic Chemicals _____	
<input type="checkbox"/> F. Inks/Dyes/Pigments/Paint/Latex/ Adhesives/Organic Sludge _____	<input type="checkbox"/> M. Miscellaneous Wastes _____	
<input type="checkbox"/> G. Waste Organic solvents _____		
Packaging Information: (Indicate types, capacities and number of containers)		
Special Handling Instructions, If any.		
Certification:  I hereby declare that the content of this consignment are fully described above and are classified, packed, marked and labeled and in all respect in proper condition to transport to approved TSD facility in accordance with applicable national regulations.		
		_____ Owner or Authorized Representative
		_____ Designation

**Control No. EMB-Region-YY-sequence**

**UNIFORM HAZARDOUS WASTE MANIFEST FORM****Page 2/2****Section B : Transporters**

Acknowledgement:

Transporter # 1

DENR ID No :

Address :

Tel No :

Date of Transport

Fax No:

Name / Signature of Authorized Representative:

Date Waste Received :

Designation:

Acknowledgement:

Transporter # 2

DENR ID No :

Address :

Tel No :

Date of Transport

Fax No:

Name / Signature of Authorized Representative:

Date Waste Received :

Designation:

**Section C: Treaters**

TSD facility Name

DENR ID No :

Address :

Tel No :

Fax No:

Name / Signature of Authorized Representative:

Date Waste Received :

Designation:

Comments (to be filled by Generator, transporter, or TSD operators if any) :

**FOR DENR USE ONLY:**

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## **Guidelines in Filling-up the Transport Manifest Form:**

Please accomplish in seven (7) copies

Procedure of manifest Certification:

- From Generator to transporter  
Both shall sign the manifest form and indicate the date of hauling. A signed copy will be retained by each party.
  
- From 1<sup>st</sup> Transporter to the 2<sup>nd</sup> Transporter (if applicable)  
Both shall sign and indicate the date. The 1<sup>st</sup> Transporter retains a signed copy of the manifest and gives the remaining copies to the 2<sup>nd</sup> Transporter.
  
- From Transporter to TSD Premise  
Both shall sign the manifest and indicate the date of receiving the waste. The Transporter and The TSD Premise owner / operator shall keep a copy of the manifest. Copy of the completed manifest shall be also provided to Generator and DENR-EMB where the wastes is generated. If the treater is located in a different region from the Generator, a copy of the manifest should also be provided to the EMB regional office where the wastes is to be treated.

The Treater must submit a completed signed copy of the manifest to the Generator and the DENR-EMB within five (5) days after completing the receiving the wastes from the transporter. Failure to submit the completed manifest to the Generator and to DENR-EMB within 30 days, the Generator should contact both the Transporter and the TSD premise owner/operator to determine the whereabouts of the waste. The Generator must report in writing along with the copy of the manifest signed by the Transporter to DENR-EMB if the completed manifest was not submitted by the Transporter within 45 days.

Environmental Management Bureau - Department of Environmental and Natural Resources  
Hazardous Waste Management Section – Environmental Quality Division  
DENR Compound Visayas Ave. Diliman Quezon City





**Form B : Registration form for HW Treater**

***B1: General Information of Treater***

1. DENR ID:		2. Date of issued (D/M/Y):     /     /	
3. Registered Company Name:			
4. Address of head office:			
5. Name of the President			
6. Tel:		7. Fax:	
8. Address of the Plant:			
9. Tel:		10. Fax:	
11. Pollution Control Officer:			
12. Tel:		13. Fax:	14. e-mail:
15. Date of Establishment (D/M/Y):		/     /	
16: Authorized Capitalization (P/year):			
17: Paid-up Capitalization (P/year):			
18. Total Employees:	19. Admin. Employees:	20. Plant Employees:	
21. ECC Number:	22. Date Issued:	23. Place Issued:	
24. P/O Number:	25. Date Issued:	26. Place Issued:	
27. Name of PCO	28. Accreditation Number	29. Date of Accreditation:	
21. Treatment method and Capacity: A: Physico-Chemical treatment B: Thermal treatment C: Solidification D: Storage E: Disposal F: Recycle			
Treatment Method	Date of permit to Operate	Treatment Capacity (ton/day)	Type of HW that can be treated
	/     /		
	/     /		
	/     /		
	/     /		
	/     /		

Please append the following for each TSD premises:

- (1) Process flow Diagram and detailed description of each treatment/recycling process identifying all/by-products, end-products and residues
- (2) Storage management plan for raw materials, residues, by-products and end-products
- (3) Long term plan for the recycled/processed/end-product
- (4) Photograph/s of the facilities showing processing areas, storage areas
- (5) Accountability statement (Duly notarized)

I certify that enclosed information is a true and accurate record as available.

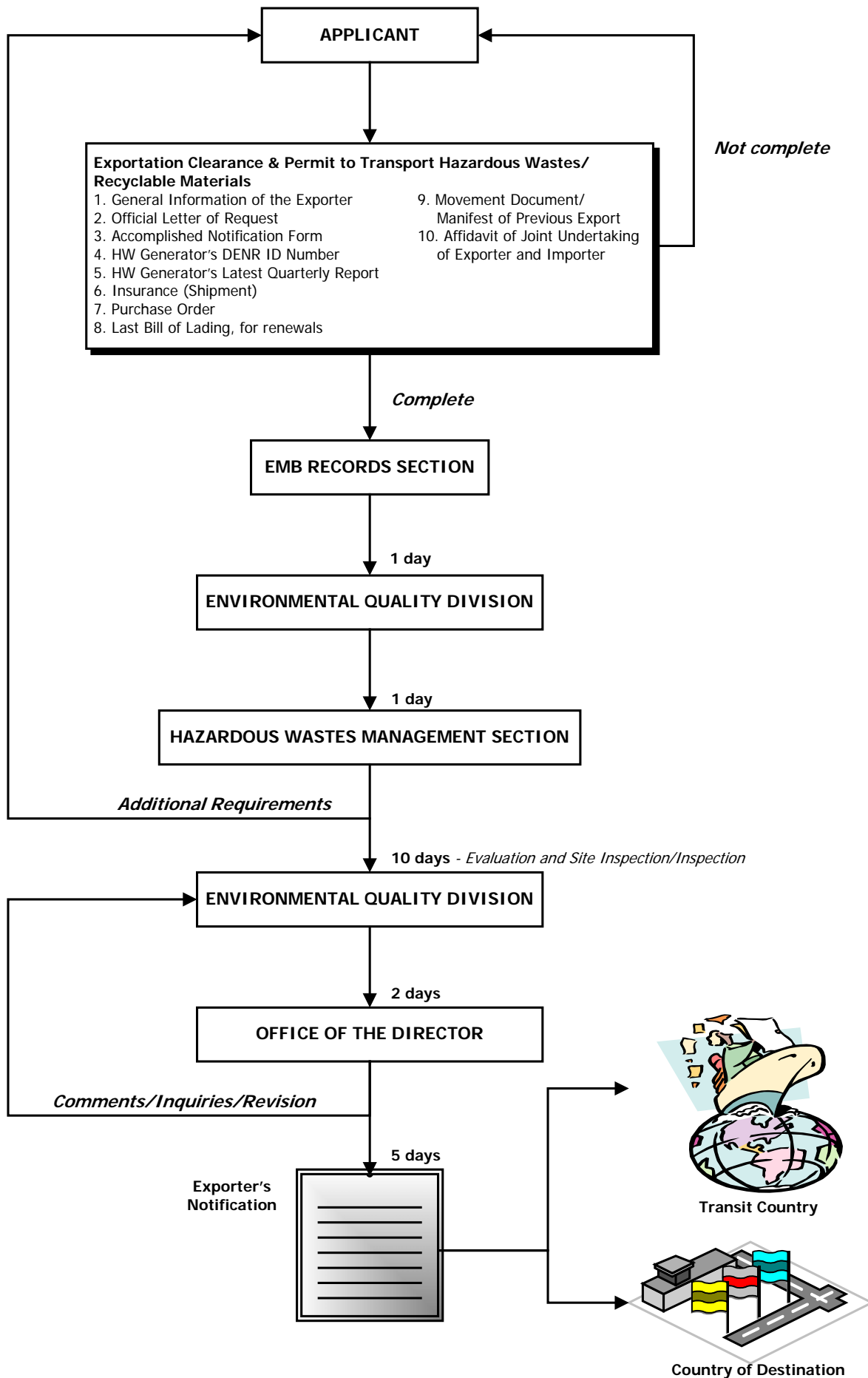
President:

Signature:

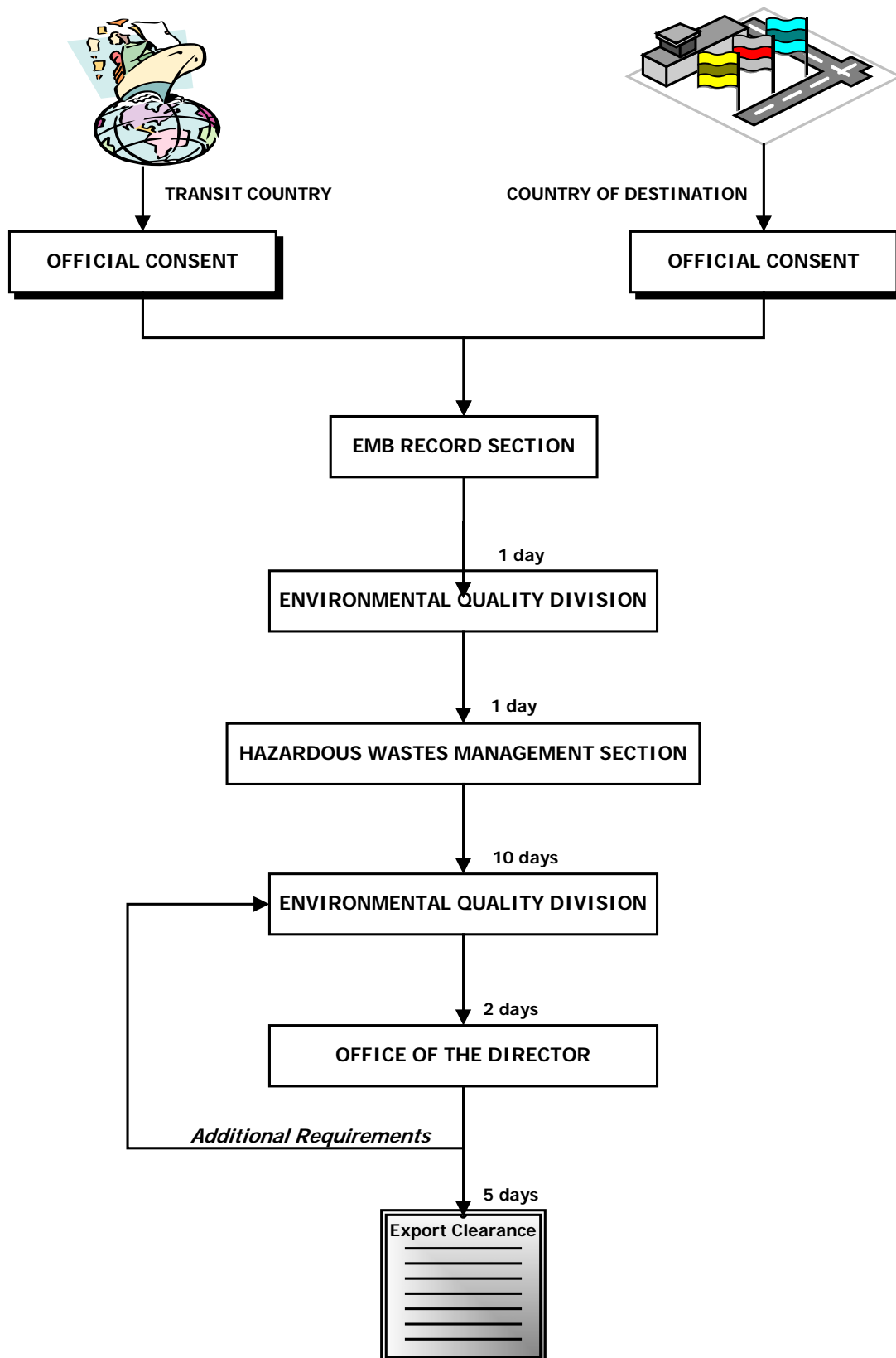
Date(D/M/Y) / /

## PROCEDURAL FLOWCHART

### Application for Export Clearance - Transmittal of Notification



### PROCEDURAL FLOWCHART Application for Export Clearance



## PROCEDURAL FLOWCHART Application for Import Clearance

