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DEC 0 4 2013

**DENR ADMINISTRATIVE ORDER**
**No. 2013 - 22**

**Subject: REVISED PROCEDURES AND STANDARDS FOR THE MANAGEMENT OF HAZARDOUS WASTES (REVISING DAO 2004-36)**

Pursuant to Republic Act No. 6969 otherwise known as the "Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990, Executive Order No. 192 Series of 1987, and DENR Administrative Order No. 2004-36, "Revising DENR Administrative Order No. 29, Series of 1992, to Further Strengthen the Implementation of Republic Act 6969 and Prescribing the Use of the Procedural Manual", the Procedural Manual for Hazardous Waste Management is hereby revised.

**Section 1. Basic Policy**

It is the policy of the State to regulate, restrict or prohibit the importation, manufacture, processing, sale, distribution, use and disposal of chemical substances and mixtures that present unreasonable risk and/or injury to health or the environment; to prohibit the entry, even in transit, of hazardous and nuclear wastes and their disposal in the Philippine territorial limits for whatever purpose; and to provide advancement and facilitate research and studies on toxic chemicals and hazardous and nuclear wastes.

**Sec. 2. Objectives.** This Administrative Order shall have the following objectives:

a. Ensure that the important aspects of the Title III of DENR Administrative Order 92-29 (Implementing Rules and Regulations of RA 6969), particularly the requirements for hazardous waste generators, transporters and treaters are developed and presented in a useful information/ reference document for various stakeholders; and
b. Further streamline procedures for generation and compliance to the legal and technical requirements for hazardous waste management in the light of recent developments.

**Sec. 3. Scope and Coverage.** This Order shall revise the following provisions of DENR Administrative Order 2002-36:

| | |
|---|---|
| 1. Definition of Terms | Chapter 1 |
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The Revised Procedural Manual prescribing detailed requirements and procedures for hazardous waste management is hereby appended and forms an integral part of this Order.

**Sec. 4. Separability Clause.** If any section or provision of these Rules and Regulations or that of the Revised Procedural Manual is held or declared unconstitutional or invalid by a competent court, the other sections or provisions hereof shall continue to be in force as if the sections or provisions so annulled or voided had never been incorporated herein.

**Sec. 5. Repealing Clause.** All Rules and Regulations or parts of said rules and regulations or pertinent laws inconsistent with these Rules and Regulations are hereby revised, amended, modified and/or superseded as the case may be by this Order.

**Sec. 6. Amendments.** These Rules and Regulations and the Revised Procedural Manual may be amended and/or modified from time to time by the Department of Environment and Natural Resources.

**Sec. 7. Effectivity.** This Order shall take effect fifteen (15) days after its publication in a newspaper of general circulation and upon acknowledgment of receipt of a copy hereof by the Office of the National Administrative Register (ONAR).

**RAMON J. P. PAJE**
Secretary

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

SENR036138

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## Contents

**Appendices**

# FOREWORD

This Revised Procedural Manual seeks to collate and streamline the existing rules and regulations of Hazardous Wastes Management. Its main objectives are to:

a. Provide a singular procedural manual on the Implementing Rules and Regulations of Republic Act 6969

b. Be able to continuously monitor the generation, transport, treatment, storage, and disposal of hazardous wastes, in order to avoid environmental contamination

c. Provide a primary reference for DENR and EMB 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 effective implementation of proper hazardous waste management

d. Clarify the definitions on hazardous waste management, and to provide technical standards and requirements for hazardous waste generators, transporters, and facilities involved in the treatment, storage, recycling, reprocess, and disposal of hazardous wastes in the country

e. Consolidate existing rules and regulations pertaining to hazardous waste and hazardous materials, in consonance with other existing environmental laws, namely PD 1586 (Environmental Impact Statement System Law), RA 8749 (Clean Air Act of 1999), RA 9003 (Ecological Solid Waste Management Act of 2001), and RA 9275 (Clean Water Act of 2004)

# 1.0 DEFINITION OF TERMS

Unless otherwise specified, the following terms shall have the meaning provided for in this Procedural Manual:

a. *"Chemical Control Order (CCO)"* is an order which either prohibits, limits, and regulates the use, manufacture, import, export, transport, processing, storage, possession and wholesale of priority chemicals

b. *"Combustible Liquid"* means any liquid having a flash point at or above 37.8°C, but below 93.3°C, except any mixture having components with flashpoints of 93.3°C, or higher, the total volume of which make up 99 percent or more of the total volume of the mixture"

c. *"Corrosive"* are substances whether 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

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

e. *"Drills"* are the periodic tests or exercises to establish the efficacy of the Spill Response Procedures, practice the knowledge and skills of the Emergency Response Team, and serve as training for employees

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

g. *"Emergency"* means any unplanned event that can cause injury or death to employees, customers, or the public; or can cause physical or environmental damage

h. *"Emergency Coordinator"* means the responsible person in implementing the Contingency Program; notifying personnel in the organization, the Department, fire department, and other responsible agencies in the event of hazardous materials spill or release; and initiating necessary response activities to minimize the impacts of the hazardous wastes spill or release to the environment

i. *"Emergency Response Team"* refers to a group of trained personnel in the organization, responsible for identifying various emergencies pertaining to chemicals and hazardous wastes and planning, developing, and testing Spill Response Procedures

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

k. *"Evacuation Route"* means the shortest path from an affected area to an area of safety, shelter area, or location out of the building or facility

l. *"Flammable Gas"* is a material which has a boiling point of 20°C at 1 atmosphere, which is ignitable at 1 atmosphere when in a mixture of 13 percent or less by volume with air; or has a flammable range at 1 atmosphere with air of at least 12 percent regardless of the lower limit

m. *"Flammable Liquids"* are any liquid having a flash point below 37.8°C, except any mixture having components with flash points of 37.8°C or higher, the total of which make up 99 percent or more of the total volume of the mixture

n. *"Flammable Solids"* are characterized into three broad classes:

- Desensitized explosives such as those wetted with sufficient water, alcohol, or plasticizer to suppress explosive properties
- Self-reactive materials that are thermally unstable and that can undergo a strongly exothermic (heat-evolving) decomposition even without the participation of oxygen (air)
- Readily combustible solids such as:
  - Solids which may cause a fire through friction, such as matches
  - Pyrophoric materials, those that can ignite with no external ignition source within five minutes after coming in contact with air
  - Self-heating materials, those that exhibit spontaneous ignition or heat themselves to a temperature of 200°C during a 24-hour test period. (This behavior is called spontaneous combustion)
  - Dangerous when wet materials, those that react with water to become spontaneously flammable or to give off flammable gas or toxic gas at a rate greater than 1 liter per kilogram of the material, per hour

o. *"Hazardous Substances"* are substances which present either:

- Short-term acute hazard 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 hazard, 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 water, or aesthetically objectionable properties such as offensive odor

p. *"Hazardous Wastes"* are:

- 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
- 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 to the people or to the environment

q. *"Hazardous Waste Manifest"* is the hazardous waste tracking system through a receiving and shipping documentation and certification process, following the "cradle to cradle" cycle of hazardous waste management

r. *"Ignitable"* are substances which can create fire under certain conditions, including but not limited to the following: liquids, such as solvents that readily catch fire and friction-sensitive substances

s. *"Ignitable Liquid"* is any liquid with a flash point of not more than 60°C, closed-cup test or 65.6°C, open-cup test

t. *"Ignitable Solid"* any of the following three types of materials:

- Wetted explosives that when dry are capable of explosion;
- Self-reactive materials that are capable to undergo, at normal or elevated temperatures, a strong exothermal decomposition caused by excessive high transport temperatures or contamination;
- Readily combustible solids that may cause 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

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

v. *"Importation"* means the entry of a product or substance into the Philippines 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, and for further processing

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

*x."Infectious Substance"* means any substance that has a viable micro-organism or its toxin, which causes or may cause animal or human disease. This includes Infectious Substances Affecting Animals only, Infectious Substances Affecting Humans, and Etiologic Agents.

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

*z."New TSD Facilities"* are Facilities that are constructed or installed after approval of this Procedural Manual

*aa."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

*bb."Online Hazardous Waste Manifest System"* means the online tracking and database system for real-time tracking of the wastes from the point of generation to the point of ultimate treatment, storage or disposal; and for timely and easy access of hazardous waste management information

*cc."Oxidizer"* substances that readily releases oxygen during chemical reaction

*dd."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

*ee."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

*ff."Person"* or *"Persons"* include(s) any being, natural or juridical, susceptible of rights and obligations or of being the subject of legal relations

*gg.* *"Personal Protective Equipment (PPE)"* are clothing or ensembles for eye, skin, and respiratory protection, the level of which is dependent on the hazards and the routes of exposure

*hh.* *"Poisonous Gas"* is a material, that at 20°C or less at a pressure of 1 atmosphere or has a boiling point of 20°C or less at 1 atmosphere is known to be toxic to humans and pose hazard to health during transportation

*ii.* *"Poisonous Substances"* are materials other than gas that are known to be so toxic to humans a hazard to health during transportation, or which in the absence of adequate data on human toxicity is presumed to be toxic to humans because it falls within any one of the following categories:

- Oral Toxicity. A liquid with an $LD_{50}$ for acute oral toxicity of not more than 500 mg/kg or a solid with an $LD_{50}$ for acute oral toxicity of not more than 200 mg/kg
- Dermal Toxicity. A material with an $LD_{50}$ for acute dermal toxicity of not more than 1,000 mg/kg
- Inhalation Toxicity: A dust or mist with an $LC_{50}$ for acute toxicity on inhalation of not more than 10 mg/L

*jj.* *"Pollution"* means any alteration of the physical, chemical, biological properties of any water, air and 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

*kk.* *"Pollution Control Officer (PCO)/ Environmental Protection Officer(EPO)"* is an officer who is technically knowledgeable in pollution control and environmental management, performing his or her duties and responsibilities in a particular manufacturing and industrial or commercial establishment and, officially accredited to perform such responsibilities and to execute the provisions of these Rules and Regulations subject to conditions, limitations, or restrictions as prescribed under this Procedural Manual

*ll.* "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

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

*nn.*"Pyrophoric Materials" are substances 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 will create fire.

*oo.* *"Reactive"* are defined as substances that:

- Are unstable under normal conditions and readily undergo violent change without detonating
- React violently with water and create spontaneously explosive mixtures like toxic gases, vapors or fumes
- Are capable of detonating

*pp.* *"Recyclable Material"* means any material, which is reused, following its original use, for any purpose of commercial, industrial, agricultural, or economic purpose

*qq.* *"Registration"* means the registration procedures for Waste Generators, Waste Transporters, and TSD Facilities

*rr.* *"Regulation/Regulations"* means this set of rules and regulations and such rules and regulations as may be formulated by the Department or the Bureau

*ss.* *"Response Organization"* means the organizational structure that defines the roles and responsibilities of personnel involved in chemicals and hazardous wastes emergency response

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

*uu.* *"Solidification"* means physical immobilization of hazardous substances, through which the waste is consolidated to reduce the surface area of the waste

*vv.* *"Spill Response Procedures"* are the detailed tasks and activities outlining the procedure for responding to a specific chemicals and hazardous wastes spills or releases

*ww.* *"Stabilization"* means chemical immobilization of hazardous substances, through chemical bonds to an immobile matrix, or chemical conversion to immobile species

*xx.* *"Special Wastes"* Special wastes shall refer to household hazardous wastes such as paints, thinners, household batteries, lead-acid batteries, spray canisters and the like. These include wastes from residential and commercial sources that comprise of bulky wastes, consumer electronics, white goods, yard wastes *that are collected separately, batteries, oil, and tires. These wastes are usually handled separately from other residential and commercial wastes.*

*yy."Toxicity Characteristics Leaching Procedure (TCLP)"* is 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 media

*zz."Toxic"* are substances, which when inhaled or ingested or if it penetrates the skin, may involve acute or chronic health risks including carcinogenicity, mutagenicity, or teratogenicity on human or other life forms

*aaa."Transport"* are any means of conveyance whether by air, water, or land

*bbb."Treatment, Storage, and Disposal (TSD) Facilities"* are the facilities where hazardous wastes are transported, stored, treated, recycled, reprocessed, or disposed of

*ccc."Waste Generator"* means a person who generates or produces hazardous wastes, through any institutional, commercial, industrial or trade activities

*ddd."Waste Transporter"* means a person who is registered to transport hazardous wastes

*eee."Waste Treater"* means a person who registered to treat, store, recycle, or dispose of hazardous wastes

*fff."Unreasonable Risk"* means expected high frequency of undesirable effects or adverse responses arising from a given exposure to a substance or hazardous wastes

# 2.0 CLASSIFICATION OF HAZARDOUS WASTES

Table 2.1 presents the Classification of Prescribed Hazardous Wastes covered by this Procedural Manual while Table 2.2 presents the Wastes Exempted from this Procedural Manual.

**Table 2.1 Classification of Hazardous Wastes**

| Class | Description | Waste Number |
|---|---|---|
| A: Wastes with Cyanide | | |
| Wastes with cyanide | Waste containing cyanide with concentration > 70 mg/L in liquid waste. Refer to CCO. | A101 |
| B: Acid Wastes | | |
| 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 |
| C: Alkali Wastes | | |
| 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 C305 pH ≥ 12.5 | C399 |
| D: Wastes with Inorganic Chemicals | | |
| Selenium and its compounds* | Includes all wastes with a total Se concentration > 1 mg/L based on analysis of an extract | D401 |
| Arsenic and its compounds* | Includes all wastes with a total As concentration > 1 mg/L based on analysis of an extract | D402 |
| Barium and its compounds* | Includes all wastes with a total Ba concentration > 70 mg/L based on analysis of an extract | D403 |
| Cadmium and its compounds* | Includes all wastes with a total Cd concentration > 0.3 mg/L based on | D404 |

| Class | Description | Waste Number |
|---|---|---|
| | 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 > 1 mg/L based on analysis of an extract | D406 |
| Mercury and mercury compounds* | Includes all wastes with a total Hg concentration > 0.1 mg/L based on analysis of an extract. These also includes organomercury compounds. Refer to CCO. | D407 |
| Fluoride and its compounds* | Includes all wastes with a total F concentration > 100 mg/L based on analysis of an extract | D408 |
| Other wastes with inorganic chemicals | Wastes having as constituents or contaminants any of the following:<br>• Antimony; antimony compounds<br>• Beryllium; beryllium compounds<br>• Tellurium; tellurium compounds<br>• Thallium; thallium compounds<br>• Metal carbonyls<br>• Hexavalent chromium compounds<br>• Copper compounds<br>• Zinc compounds | 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:<br><br>• It is normally unstable and readily undergoes violent change without detonating<br>• It reacts violently with water<br>• It forms potentially explosive mixtures with water<br>• When mixed with water, it generates toxic gases, vapor or fumes in a quantity sufficient to present a danger to human health<br><br>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 | E501 |

| Class | Description | Waste Number |
|---|---|---|
| | in a quantity that poses a danger to human health | |
| 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:<br><br>• It is normally unstable and readily undergoes violent change without detonating<br>• It reacts violently with water<br>• It forms potentially explosive mixtures with water<br>• When mixed with water, it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health<br><br>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 source or when heated under confinement, or 2) capable of detonation or explosive decomposition at a temperature of 20°C and Pressure of 1 atm. | E503 |
| 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/ Resins/Latex/Adhesives/Organic Sludge | | |
| Solvent based | Includes all solvent based wastes that also meet one or more of the sub-categories | F601 |
| Inorganic pigments | Includes all wastewater treatment sludge from the production of inorganic pigments | F602 |
| 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 | F603 |

| Class | Description | Waste Number |
|---|---|---|
| | formulation of ink from pigments, driers, soaps, and stabilizers containing Chromium and Lead. | |
| Resinous materials | Waste resins generated, but not limited to, water purification processes | F604 |
| Other mixed | Other mixtures with above constituents other than aqueous | F699 |
| G: Waste Organic Solvents | | |
| Halogenated organic solvents | Includes, but not limited to the following spent halogenated solvents as well as those listed in the Priority Chemical List (PCL): Tetrachloroethylene; Trichloroethylene; Methylene chloride; 1,1,1-Trichloroethane; Carbon Tetrachloride; Chlorobenzene; 1,2,2-Trichloroethane; chlorinated fluorocarbons if they contain a total of 10% or more (by volume) 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, but not limited to the following spent non-halogenated solvents as well as those listed in the Priority Chemical List (PCL) : xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanol, methanol, cresol, cresylic acid, nitrobenzene, toluene, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxy ethanol, and 2-nitropropane and other non-halogenated organic solvents if they contain a total of 10% or more (by volume) 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: Organic Wastes | | |
| Grease wastes | Includes all grease wastes generated from establishments such as industrial, commercial and institutional facilities | H802 |
| I: Oil | | |
| Used or waste oil | Used industrial oil including sludge | I101 |
| | Vegetable oil including sludge | I102 |
| | Tallow | I103 |

| Class | Description | Waste Number |
|---|---|---|
| | Oil-contaminated Materials | I104 |
| J: Containers | | |
| Containers previously containing toxic chemical substances | Containers that used to hold hazardous wastes and toxic chemical substances<br><br>Containers that used to contain polychlorinated biphenyl (PCB) are categorized as L404 and excluded from this sub-category. | J201 |
| K: Stabilized Waste | | |
| Solidified 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 of the disposal facility | K301 |
| Chemically fixed and polymerized wastes | Wastes whose hazardous substances are chemically immobilized through chemical bonds to an immobile matrix or chemical conversion to meet the waste acceptance criteria of the disposal facility | K302 |
| Encapsulated wastes | Wastes whose hazardous substances are physically immobilized by enveloping the waste in a non-porous, impermeable material in order to store or dispose of hazardous wastes in a registered disposal facility | K303 |
| L: Organic Chemicals | | |
| Wastes with specific halogenated toxic organic chemicals | Solid organic chemical wastes listed in the Priority Chemical List (PCL) | L401 |
| Wastes with specific non-halogenated toxic organic chemicals | Solid organic chemical wastes listed in the Priority Chemical List (PCL) | L402 |
| Ozone depleting substances (ODS)<br><br>Polychlorinated Biphenyl (PCB) wastes | All ODS wastes (refer to CCO)<br><br>All PCB wastes (refer to CCO and Memorandum Circular on the Code of Practice for PCB) | L403<br><br>L404 |
| M: Miscellaneous Wastes | | |
| Pathological or infectious wastes | Includes healthcare wastes from hospitals, medical centers and clinics containing pathological, pathogenic and infectious wastes, sharps, and others | M501 |
| Asbestos wastes | All asbestos wastes (refer to CCO) | M502 |

| Class | Description | Waste Number |
|---|---|---|
| Pharmaceuticals and drugs | Expired pharmaceuticals and drugs stocked at producers and retailers' facilities which contain hazardous constituents harmful to the environment such as antibiotics, veterinary and phyto pharmaceuticals and others | M503 |
| Pesticides | Waste pesticides other than M505. Includes all wastewater sludge with hazardous constituents from production of pesticides other than those listed in M505. | M504 |
| Persistent Organic Pollutants (POPs) wastes | Wastes listed in the Stockholm Convention on POPs such as, but not limited to, aldrin, chlordane, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene, and dichlorodiphenyl trichloroethane (DDT)<br><br>Polychlorinated Biphenyl (PCB) wastes are categorized as L404 and excluded from this sub-category. | M505 |
| Waste electrical and electronic equipment (WEEE) | Include all waste electrical and electronic equipment that contain hazardous components such as lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) that includes its peripherals i.e., ink cartridges, toners, etc. | M506 |
| Special Wastes | Household hazardous wastes such as paints, thinners, household batteries, lead-acid batteries, spray canisters and the like that are consolidated by Material Recovery Facilities (MRFs).<br><br>These include wastes from residential and commercial sources that comprise of consumer electronics, white goods (i.e. refrigerators, washing machines, air conditioners, etc.) batteries, oil and busted lamps | M507 |

*TCLP limits for arsenic, barium, cadmium, chromium, fluoride, lead, mercury and selenium are correlated with the 2007 Philippine National Standards for Drinking Water.

Should there be other wastes not listed in both tables, the results of the toxicity characteristics leaching procedure (TCLP) shall be used in determining whether the said wastes are hazardous and covered by this Procedural Manual.

**Table 2.2 Exempted Wastes**

| Description |
|---|
| Household wastes such as garbage under RA 9003 except special wastes |
| 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 2.1 |
| Materials from building demolition except those containing 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 |

# 3.0 GOVERNING RULES AND REGULATIONS FOR HAZARDOUS WASTE GENERATORS

## *3.1 CATEGORIES OF HAZARDOUS WASTES GENERATORS*

In general, waste generators are classified into large and small depending on the volume and type of wastes generated as prescribed in Table 3.1.

**Table 3.1 Categories of Hazardous Waste Generators**

| Hazardous Waste Number | Waste Type | Large Generator kg/yr | Medium Generator kg/yr | Small Generator kg/yr |
|---|---|---|---|---|
| A101 | Wastes with Cyanide | >10,000[a] | 10,000-5,000 | <5,000 |
| L403 | ODS | | | |
| L404 | PCB Wastes | | | |
| M502 | Asbestos Wastes | | | |
| M501 | Pathological or Infectious Wastes | | | |
| M503 | Pharmaceuticals and Drugs | | | |
| D401-D499 | Waste with Inorganic Chemicals | >20,000[b] | 20,000-10,000 | <10,000 |
| E501-E599 | Reactive Chemical Waste | | | |
| F601-F699 | Inks/Dyes/Pigments /Paint/Resins/Latex /Adhesives/ Organic Sludge | | | |
| G703-G704 | Waste Organic Solvents | | | |
| K301-K303 | Stabilized Waste | | | |
| L401-L402 | Other Organic Chemicals | | | |
| M504-M506 | Miscellaneous Waste | | | |
| B201-B299 | Acid Wastes | >36,000[c] | 36,000-18,000 | <18,000 |
| C301-C399 | Alkali wastes | | | |
| I101-I104 | Used or Waste Oil | | | |
| J201 | Empty Chemical Containers | | | |

| Hazardous Waste Number | Waste Type | Large Generator kg/yr | Medium Generator kg/yr | Small Generator kg/yr |
|---|---|---|---|---|
| H802 | Grease wastes | >500,000[d] | 500,000-250,000 | <250,000 |
| M507 | Busted lamps | ≥100 pcs/yr | 100-50 pcs/yr | <50 pcs/yr |

Notes:

a. Based on less than 50 kg/day hence round off to 10,000 kg/yr
b. Based on 20,000 kg/yr, roughly equivalent to 100 drums per year (~200 L capacity) or less than 10 drums per month or less than 0.3 drum per day.
c. Based on 36,000 kg/yr, roughly equivalent to 180 drums per year (~200 L capacity) or 15 drums per month or 0.5 drum per day.
d. Based on 500,000 kg per year of organic wastes that can fill a lagoon or dumpsite of around 50 square meters with a depth of one meter.

In case of establishments generating two types of waste, the establishment is classified as a large generator. The Bureau may from time to time update the categories of waste generators, once data becomes available.

### *3.2 COMPLIANCE REQUIREMENTS PER CATEGORY OF WASTES GENERATORS*

In general, all hazardous waste generators regardless of size must comply with the requirements set forth in this Procedural Manual. Unless specified, all requirements in this Procedural Manual apply to both large and small quantity generators. Table 3.2 summarizes the compliance requirements for large and small quantity generators.

### *3.3 REQUIREMENTS FOR WASTE GENERATORS*

Waste generators are required to register online 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 the waste generator. Procedural flow for online registration is shown in Appendix 1.

Duly registered waste generators shall perform the following activities:

a. Designate a full-time Pollution Control Officer (PCO)

b. Register online and disclose to the Department the type and quantity of waste generated, submit all the required documentary

requirements, and pay the prescribed fee to the EMB Regional Office having jurisdiction over the waste generator

c. Until such time that an integrated environmental database is developed, submit online the Hazardous Waste Management portion of the company's Self-Monitoring Report, which shall include the type and quantity of waste generated and transported offsite for treatment or storage

## Table 3.2 Compliance Requirements of Waste Generators

| Category | Compliance Requirements | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Registration | Designation of PCO | Reporting | Storage and Labeling | Storage Time Limit | Manifest System | Contingency Planning | Training |
| Large quantity generators | Yes | Full time | Quarterly | Yes | 6 months | Yes | Yes | Yes |
| Medium quantity generators | Yes | Full time | Semi-Annual | Yes | 1 year | Yes | Yes | Yes |
| Small quantity generators | Yes | Full-time | Annual | Yes | 1 year | Yes | Yes | Yes |

| Class | Description | Waste Number |
|---|---|---|
| | 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 > 1 mg/L based on analysis of an extract | D406 |
| Mercury and mercury compounds* | Includes all wastes with a total Hg concentration > 0.1 mg/L based on analysis of an extract. These also includes organomercury compounds. Refer to CCO. | D407 |
| Fluoride and its compounds* | Includes all wastes with a total F concentration > 100 mg/L based on analysis of an extract | D408 |
| Other wastes with inorganic chemicals | Wastes having as constituents or contaminants any of the following:<br>• Antimony; antimony compounds<br>• Beryllium; beryllium compounds<br>• Tellurium; tellurium compounds<br>• Thallium; thallium compounds<br>• Metal carbonyls<br>• Hexavalent chromium compounds<br>• Copper compounds<br>• Zinc compounds | 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:<br><br>• It is normally unstable and readily undergoes violent change without detonating<br>• It reacts violently with water<br>• It forms potentially explosive mixtures with water<br>• When mixed with water, it generates toxic gases, vapor or fumes in a quantity sufficient to present a danger to human health<br><br>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 | E501 |

| Class | Description | Waste Number |
|---|---|---|
| | in a quantity that poses a danger to human health | |
| 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:<br><br>• It is normally unstable and readily undergoes violent change without detonating<br>• It reacts violently with water<br>• It forms potentially explosive mixtures with water<br>• When mixed with water, it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health<br><br>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 source or when heated under confinement, or 2) capable of detonation or explosive decomposition at a temperature of 20°C and Pressure of 1 atm. | E503 |
| 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/ Resins/Latex/Adhesives/Organic Sludge | | |
| Solvent based | Includes all solvent based wastes that also meet one or more of the sub-categories | F601 |
| Inorganic pigments | Includes all wastewater treatment sludge from the production of inorganic pigments | F602 |
| 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 | F603 |

| Class | Description | Waste Number |
|---|---|---|
| | formulation of ink from pigments, driers, soaps, and stabilizers containing Chromium and Lead. | |
| Resinous materials | Waste resins generated, but not limited to, water purification processes | F604 |
| Other mixed | Other mixtures with above constituents other than aqueous | F699 |
| G: Waste Organic Solvents | | |
| Halogenated organic solvents | Includes, but not limited to the following spent halogenated solvents as well as those listed in the Priority Chemical List (PCL): Tetrachloroethylene; Trichloroethylene; Methylene chloride; 1,1,1-Trichloroethane; Carbon Tetrachloride; Chlorobenzene; 1,2,2-Trichloroethane; chlorinated fluorocarbons if they contain a total of 10% or more (by volume) 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, but not limited to the following spent non-halogenated solvents as well as those listed in the Priority Chemical List (PCL) : xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanol, methanol, cresol, cresylic acid, nitrobenzene, toluene, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxy ethanol, and 2-nitropropane and other non-halogenated organic solvents if they contain a total of 10% or more (by volume) 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: Organic Wastes | | |
| Grease wastes | Includes all grease wastes generated from establishments such as industrial, commercial and institutional facilities | H802 |
| I: Oil | | |
| Used or waste oil | Used industrial oil including sludge | I101 |
| | Vegetable oil including sludge | I102 |
| | Tallow | I103 |

| Class | Description | Waste Number |
|---|---|---|
| | Oil-contaminated Materials | I104 |
| J: Containers | | |
| Containers previously containing toxic chemical substances | Containers that used to hold hazardous wastes and toxic chemical substances<br><br>Containers that used to contain polychlorinated biphenyl (PCB) are categorized as L404 and excluded from this sub-category. | J201 |
| K: Stabilized Waste | | |
| Solidified 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 of the disposal facility | K301 |
| Chemically fixed and polymerized wastes | Wastes whose hazardous substances are chemically immobilized through chemical bonds to an immobile matrix or chemical conversion to meet the waste acceptance criteria of the disposal facility | K302 |
| Encapsulated wastes | Wastes whose hazardous substances are physically immobilized by enveloping the waste in a non-porous, impermeable material in order to store or dispose of hazardous wastes in a registered disposal facility | K303 |
| L: Organic Chemicals | | |
| Wastes with specific halogenated toxic organic chemicals | Solid organic chemical wastes listed in the Priority Chemical List (PCL) | L401 |
| Wastes with specific non-halogenated toxic organic chemicals | Solid organic chemical wastes listed in the Priority Chemical List (PCL) | L402 |
| Ozone depleting substances (ODS)<br>Polychlorinated Biphenyl (PCB) wastes | All ODS wastes (refer to CCO)<br><br>All PCB wastes (refer to CCO and Memorandum Circular on the Code of Practice for PCB) | L403<br><br>L404 |
| M: Miscellaneous Wastes | | |
| Pathological or infectious wastes | Includes healthcare wastes from hospitals, medical centers and clinics containing pathological, pathogenic and infectious wastes, sharps, and others | M501 |
| Asbestos wastes | All asbestos wastes (refer to CCO) | M502 |

| Class | Description | Waste Number |
|---|---|---|
| Pharmaceuticals and drugs | Expired pharmaceuticals and drugs stocked at producers and retailers' facilities which contain hazardous constituents harmful to the environment such as antibiotics, veterinary and phyto pharmaceuticals and others | M503 |
| Pesticides | Waste pesticides other than M505. Includes all wastewater sludge with hazardous constituents from production of pesticides other than those listed in M505. | M504 |
| Persistent Organic Pollutants (POPs) wastes | Wastes listed in the Stockholm Convention on POPs such as, but not limited to, aldrin, chlordane, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene, and dichlorodiphenyl trichloroethane (DDT)<br><br>Polychlorinated Biphenyl (PCB) wastes are categorized as L404 and excluded from this sub-category. | M505 |
| Waste electrical and electronic equipment (WEEE) | Include all waste electrical and electronic equipment that contain hazardous components such as lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) that includes its peripherals i.e., ink cartridges, toners, etc. | M506 |
| Special Wastes | Household hazardous wastes such as paints, thinners, household batteries, lead-acid batteries, spray canisters and the like that are consolidated by Material Recovery Facilities (MRFs).<br><br>These include wastes from residential and commercial sources that comprise of consumer electronics, white goods (i.e. refrigerators, washing machines, air conditioners, etc.) batteries, oil and busted lamps | M507 |

*TCLP limits for arsenic, barium, cadmium, chromium, fluoride, lead, mercury and selenium are correlated with the 2007 Philippine National Standards for Drinking Water.

Should there be other wastes not listed in both tables, the results of the toxicity characteristics leaching procedure (TCLP) shall be used in determining whether the said wastes are hazardous and covered by this Procedural Manual

**Table 2.2 Exempted Wastes**

| Description |
|---|
| Household wastes such as garbage under RA 9003 except special wastes |
| 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 2.1 |
| Materials from building demolition except those containing 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 |

# 3.0 GOVERNING RULES AND REGULATIONS FOR HAZARDOUS WASTE GENERATORS

## *3.1 CATEGORIES OF HAZARDOUS WASTES GENERATORS*

In general, waste generators are classified into large and small depending on the volume and type of wastes generated as prescribed in Table 3.1.

**Table 3.1 Categories of Hazardous Waste Generators**

| Hazardous Waste Number | Waste Type | Large Generator kg/yr | Medium Generator kg/yr | Small Generator kg/yr |
|---|---|---|---|---|
| A101 | Wastes with Cyanide | >10,000 | 10,000-5,000 | <5,000 |
| L403 | ODS | | | |
| L404 | PCB Wastes | | | |
| M502 | Asbestos Wastes | | | |
| M501 | Pathological or Infectious Wastes | | | |
| M503 | Pharmaceuticals and Drugs | | | |
| D401-D499 | Waste with Inorganic Chemicals | >20,000 | 20,000-10,000 | <10,000 |
| E501-E599 | Reactive Chemical Waste | | | |
| F601-F699 | Inks/Dyes/Pigments /Paint/Resins/Latex /Adhesives/ Organic Sludge | | | |
| G703-G704 | Waste Organic Solvents | | | |
| K301-K303 | Stabilized Waste | | | |
| L401-L402 | Other Organic Chemicals | | | |
| M504-M506 | Miscellaneous Waste | | | |
| B201-B299 | Acid Wastes | >36,000 | 36,000-18,000 | <18,000 |
| C301-C399 | Alkali wastes | | | |
| I101-I104 | Used or Waste Oil | | | |
| J201 | Empty Chemical Containers | | | |

| Hazardous Waste Number | Waste Type | Large Generator kg/yr | Medium Generator kg/yr | Small Generator kg/yr |
|---|---|---|---|---|
| H802 | Grease wastes | >500,000[d] | 500,000-250,000 | <250,000 |
| M507 | Busted lamps | ≥100 pcs/yr | 100-50 pcs/yr | <50 pcs/yr |

Notes:

a. Based on less than 50 kg/day hence round off to 10,000 kg/yr
b. Based on 20,000 kg/yr, roughly equivalent to 100 drums per year (~200 L capacity) or less than 10 drums per month or less than 0.3 drum per day.
c. Based on 36,000 kg/yr, roughly equivalent to 180 drums per year (~200 L capacity) or 15 drums per month or 0.5 drum per day.
d. Based on 500,000 kg per year of organic wastes that can fill a lagoon or dumpsite of around 50 square meters with a depth of one meter.

In case of establishments generating two types of waste, the establishment is classified as a large generator. The Bureau may from time to time update the categories of waste generators, once data becomes available.

### *3.2 COMPLIANCE REQUIREMENTS PER CATEGORY OF WASTES GENERATORS*

In general, all hazardous waste generators regardless of size must comply with the requirements set forth in this Procedural Manual. Unless specified, all requirements in this Procedural Manual apply to both large and small quantity generators. Table 3.2 summarizes the compliance requirements for large and small quantity generators.

### *3.3 REQUIREMENTS FOR WASTE GENERATORS*

Waste generators are required to register online 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 the waste generator. Procedural flow for online registration is shown in Appendix 1.

Duly registered waste generators shall perform the following activities:

a. Designate a full-time Pollution Control Officer (PCO)

b. Register online and disclose to the Department the type and quantity of waste generated, submit all the required documentary

requirements, and pay the prescribed fee to the EMB Regional Office having jurisdiction over the waste generator

c. Until such time that an integrated environmental database is developed, submit online the Hazardous Waste Management portion of the company's Self-Monitoring Report, which shall include the type and quantity of waste generated and transported offsite for treatment or storage

## Table 3.2 Compliance Requirements of Waste Generators

| Category | Compliance Requirements | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Registration | Designation of PCO | Reporting | Storage and Labeling | Storage Time Limit | Manifest System | Contingency Planning | Training |
| Large quantity generators | Yes | Full time | Quarterly | Yes | 6 months | Yes | Yes | Yes |
| Medium quantity generators | Yes | Full time | Semi-Annual | Yes | 1 year | Yes | Yes | Yes |
| Small quantity generators | Yes | Full-time | Annual | Yes | 1 year | Yes | Yes | Yes |

d. Implement proper waste management from the time the wastes are generated until they are rendered non-hazardous by complying to the Hazardous Waste Storage and Transport Requirements (Chapters 6 and 7 of this Procedural Manual)

e. Continue to own and be responsible for the wastes generated in the premises until the wastes have been certified by an accredited waste treater as adequately treated, recycled, reprocessed, or disposed off

f. Adhere to the hazardous waste transport manifest system when transporting hazardous wastes for offsite treatment, storage, and/or disposal (Chapter 7 of this Procedural Manual)

g. Prepare and submit to the Department comprehensive emergency preparedness and response program to mitigate spills and accidents involving chemicals and hazardous wastes (Chapter 8 of this Procedural Manual)

h. Communicate to its employees the hazards posed by the improper handling, storage, transport, use and disposal of hazardous wastes and their containers

i. Develop capability to implement the emergency preparedness and response programs and continually train core personnel on the effective implementation of such programs

The provisions of this procedural manual shall be applied to hazardous waste generators one (1) year from issuance hereof. *Provided, however,* that compliance may further be deferred until such time as may be deemed necessary by the Secretary of the Department of Environment and Natural Resources.

### *3.4 MANAGEMENT RESPONSIBILITY AND STRUCTURE*

Waste generator is responsible for the proper management of hazardous wastes from the time they are generated until they are rendered non-hazardous as certified by EMB-registered hazardous waste treater or recycler.

Top management of waste generator shall designate a full-time PCO that will be responsible for the day-to-day management of wastes generated in the facility. The designated PCO shall have the appropriate competency to manage wastes, be in the form of education, experience, and training.

Similarly, personnel working directly with hazardous wastes shall have appropriate competency to handle wastes, be in the form of education, experience, and training.

### *3.5 REQUIREMENTS FOR PROPER WASTE MANAGEMENT*

Waste generator, regardless of size, shall adhere to the following waste management requirements:

**1. Waste Storage Requirements**

Waste generator shall comply with the storage and handling requirements as specified in Chapter 6 of this Procedural Manual

**2. Pre-Transport Requirements**

Waste generator whose wastes are transported outside its premises shall comply with the packaging and labeling requirements appropriate to the wastes being transported. In addition, waste generator shall prepare a spill response plan specific to the wastes being transported. 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 wastes

Waste generator shall give a copy of the spill response plan to the designated waste transporter and ensure that waste transporter personnel understood the plan. Moreover, waste generator shall ensure that the designated waste transporter has the necessary spill response equipment as indicated in the spill response plan prepared for the wastes being transported.

**3. Use of Registered Waste Transporters and TSD Facilities**

Waste generator is required to avail of the services of waste transporters and TSD facilities that are duly registered by EMB Central Office and whose permits are valid within the period that the wastes are being transported and treated, stored, or disposed of.

**4. Use of the Online Hazardous Waste Manifest System in Transporting Hazardous Waste for Offsite Treatment, Storage, and Disposal**

Waste generator whose wastes are transported outside of its premises is required to comply with the Hazardous Waste Manifest System as described in Chapter 7 of this Procedural Manual.

**5. Confirmation of Treatment or Disposal Completion**

As described in Chapter 7 of this Procedural Manual, TSD facility shall issue Certificate of Treatment within 45 days after the wastes are received for treatment. The waste generator shall secure the original copy from the TSD facility and include copy of this document as part of the quarterly reporting (SMR) to EMB. Original copy shall be maintained at all times in the facility.

### *3.6 PRE-TRANSPORT REQUIREMENTS*

Before wastes are transported, waste generators shall ensure that the risk of untoward incident during transport is minimized through the following pre-transport requirements:

a. Container must be completely closed and sealed. Bungs must be tightened, and lids must be in place with bolt rings tightened.

b. Container must be inspected to ensure that it can be safely transported without risk of spills or leaks. If a container is damaged, corroded, or otherwise structurally inadequate; wastes must be transferred to a new container or placed in an approved over pack drum prior to moving.

c. Transfer of a container between an area and a vehicle must be accomplished using appropriate equipment in a way as to minimize the possibility of an accident or spill.

d. In transporting wastes contained in bottles, ensure that the bottles are placed in a tray as secondary containment or a cart is used with secondary containment.

e. When storing bottles containing wastes, avoid overloading the carts. Place containers with the correct side up, into the boxes using cardboard separations or small amounts of other suitable packaging material, to ensure the stability and immobility of the containers within the carton during transport.

f. Avoid burying small containers in packaging material or between larger containers where they may be lost or broken in transit.

g. Do not store incompatible material near each other while waiting to have wastes picked up. All containers must be securely sealed and leak proof.

h. Bulk dry solid wastes (including contaminated disposable laboratory refuse, absorbed hazardous liquid wastes, and other nonvolatile solid wastes that do not contain free liquids) can be packaged in doubled heavy duty plastic bags, open top metal cans, or polypropylene or fiber drums. Consult with the EMB Regional Office to determine which type of container should be used for the types and amounts of dry waste being generated.

i. Semisolid wastes and other volatile solid wastes (including solid chemical wastes that are wet, corrosive, generate toxic or flammable vapors, or otherwise require more secure packaging than dry solid wastes) should be placed in a wide-mouth jar or other container that is compatible with the waste and prevents leakage of liquid vapor.

### *3.7 EMERGENCY CONTINGENCY PLAN*

Waste generator must submit comprehensive emergency contingency plan to the EMB Regional Office having jurisdiction over it. The emergency contingency plan shall follow the Guideline for Preparing Emergency Contingency Plan as discussed in Chapter 8 of this Procedural Manual.

### *3.8 PERSONNEL TRAINING*

Waste generator must ensure that their personnel working directly with hazardous wastes are properly trained in accordance with Chapter 9 of this Procedural Manual.

# 4.0 GOVERNING RULES AND REGULATIONS FOR HAZARDOUS WASTE TRANSPORTERS

## *4.1 REQUIREMENTS FOR WASTE TRANSPORTERS*

A person who wishes to be registered as waste transporter by the DENR shall register online and pay the corresponding fees to the EMB Regional Office having jurisdiction over the location of the waste transporter. The Manual for Online Registration is shown in Appendix 1.

The following documents are the requirements:

a. Business Permit and SEC Registration Certificate

b. Description and Specification of Conveyance, Details of Transport Service

c. Photographs of conveyance (inside and outside parts of vehicle)

d. Proof of ownership of the vehicle (Official Receipt and Certificate of Registration)

e. Registration from Land Transportation Office, including the result of air emission testing

f. Provision of an appropriate facility that will be used as garage for the vehicles (include sketch map and photographs)

g. Certification from the Department of Transportation and Communication (DOTC) signifying that the vehicles are fit to transport hazardous materials

h. Name of Drivers and other personnel including proof of competency:

   - Certified true copies of Professional Driver's License, indicating that the proposed drivers have the appropriate licenses to drive the vehicles for waste transport
   - Certificate of Training from duly recognized trainings on waste management and emergency preparedness and response. The training certificate must have been issued within the last three (3) years. The training shall cover

the following topics and must be at the minimum of eight (8) hours:

- Waste identification and classification
- Hazard Categorization and Operability
- Separation and segregation
- Placards and Label
- Personal Protective Equipment
- Safety Data Sheet
- Emergency and Contingency Planning
- Applicable Government Regulations

i. Contingency and Emergency Plan based on Risk Assessment Studies

j. Environmental Guarantee Fund (as per DAO 2000-05, Revising DENR Administrative Order (DAO) No. 94-11, Supplementing DENR Administrative Order No. 96-37, Series Of 1996, and Providing for Programmatic Compliance Procedures within the Environmental Impact Statement (EIS) System) in the form of commercial insurance, surety bond, trust fund, or a combination thereof, whose amount is commensurate to the identified risks (from the Risk Assessment Studies) and callable upon demand by the Department during spill or emergency

k. Valid contract with a registered TSD Facility (ies)

If the applicant meets the requirements, the EMB shall issue DENR Transporter Registration Identification (ID) Number and automatically include the applicant in the Hazardous Waste Transporter Register within the Hazardous Waste Manifest System. The applicant will likewise receive USERNAME and PASSWORD that will be used in accessing the Online Hazardous Waste Manifest System.

### *4.2 RESPONSIBILITIES OF WASTE TRANSPORTERS*

The following are the responsibilities of duly registered waste transporters:

a. Transport wastes once EMB Regional Office approves the Hazardous Waste Manifest Form specific to the wastes being requested for transport by a duly registered waste generator

b. Ensure that its duly authorized driver keeps the following in the vehicle at all times during transport:

- Printed and duly signed Hazardous Waste Manifest Acknowledgement Letter from EMB Regional Office
- Emergency response plan specific to the wastes being transported
- Emergency response equipment such as pigs, booms, fire extinguishers, oversized drums for holding defective drums, personal protective equipment (PPEs), etc.
- Communication equipment
- Approved route from waste generator to TSD facility clearly indicating the plan to avoid densely populated areas, watershed or catchments areas, and other environmentally sensitive areas.

c. Provide adequate number of helper or aids in addition to the driver during transport of hazardous wastes. These helpers or aids shall also have the appropriate training in hazardous waste management.

d. Receive wastes that are properly packaged and labeled and transport the entire quantity to the TSD facility indicated in the Hazardous Waste Manifest Acknowledgement Letter.

e. Ensure that its transport vehicles have warning signs, markings, and other requirements by the DOTC on transporting hazardous materials

f. Attach placards on the conveyances as specified in Chapter 6 of this Procedural Manual

g. Immediately inform the waste generator (who shall in turn inform EMB Regional Office) in extreme case where wastes cannot be delivered to the destination indicated on the manifest form. The waste generator shall instruct the waste transporter to return the wastes to the waste generator.

h. Ensure that wastes of different subcategory or different waste generator should not be mixed during transport, transshipment, and storage

i. Immediately notify the EMB Regional Office(s) having jurisdiction over the waste generator or waste transporter, 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. The waste transporter must file within five (5) days a detailed Incident Report to the same EMB Regional Office, describing the accident, spill, and containment or cleanup measures taken.

j. Include the shipping vessel in the Hazardous Waste Manifest System in case of inter-island shipment

A waste transporter caught transporting waste not included in the Hazardous Waste Manifest Acknowledgment Letter shall automatically be removed from the Hazardous Waste Manifest System until such time that the case is resolved by the EMB.

### *4.3 WASTE TRANSPORT VEHICLES*

Waste transport vehicles must comply with regulations regarding labeling, inspection, use, pressure devices, puncture resistance, and thermal protection. These vehicles must:

a. Be strong enough to carry the load without difficulty

b. Be in good mechanical condition

c. Have sealed flooring in the cargo compartment(s)

d. Must have grounding systems particularly if it transports ignitable substances and wastes

e. Not have any exposed spark producing metal inside, which could come in contact with wastes that have explosive properties

f. Be examined for abrasion, racking or dents, corrosion, and weld defects in the following:

- Braking equipment
- Tank pressurization tests
- Piping
- Valves
- Gaskets
- Fittings
- Bolts
- Nuts
- Closures
- Fastening systems

- Pressure relief devices
- Thermal protection systems

Waste transport vehicles shall have all required markings. These markings must be correct, legible, and readable up to 10 meters from the vehicle. The following are the minimum markings:

a. Name and Transporter Registration ID Number of the waste transporter

b. Warning signs corresponding to the wastes being transported (as prescribed in Chapter 6 of this Procedural Manual)

This information must be marked on each side and each end of the vehicle.

At no time shall waste be loaded into a waste transport vehicle if it would cause a dangerous reaction when it comes in contact with the vehicle or interfere with the integrity of the vehicle.

Two or more materials shall not be transported in the same waste transport vehicle if the possible mixture of the two materials would cause an explosion, fire, or an increase in pressure, heat, or toxic vapors.

Any violation of the above conditions is considered as administrative violation under RA 6969 and is subject to penalty as provided for in Chapter 10 of this Procedural Manual.

## *4.4 REQUIREMENTS FOR WASTE VEHICLE HOLDING FACILITY (GARAGE)*

Waste transport vehicles must have a secured and designated facility for parking when not in use. At a minimum, the facility must include:

a. Bund wall to protect any accidental spills from going down the drain;

b. Facility for storing or treating spent wash water used in washing vehicles;

c. Emergency response plan based on the identified risks as described;

d. Emergency response equipment such as pigs, booms, absorbent pads, PPE, etc.;

e. Fire protection system to include sprinklers, appropriate fire extinguishers, etc.

### *4.5 CHANGE OF INFORMATION IN THE WASTE TRANSPORTER REGISTRATION DATA*

The following changes within the waste transporter organization warrants online updating of the accreditation data:

a. Replacement of driver(s) and waste transport vehicles;

b. Increase or decrease on the number of drivers and attendants;

c. Increase or decrease on the number of waste transport vehicles;

d. Location of the waste vehicle holding facility; and

e. Increase or decrease on the size of the waste vehicle holding facility.

### *4.6 RENEWAL OF REGISTRATION*

One month before expiration, an email notification will be sent by EMB reminding the waste transporter to renew registration. The waste transporter must complete online renewal registration requirement within the period; otherwise, the waste transporter will be automatically deleted from the Hazardous Waste Transporter Register.

The following requirements are needed for registration renewal:

a. Summary of transported wastes within the previous year

b. Updated permits and licenses from the previously submitted documents during registration, including the drivers' licenses and certificate of drug tests and training attended.

c. Financial Statement of the previous year with stamped received from the Bureau of Internal Revenue and the Certificate of No Pending Violation from the EMB Regional Office.

Inaccuracies in reporting shall be subject to administrative violation and subject to penalty as provided in Chapter 10 of this Procedural Manual.

# 5.0 GOVERNING RULES AND REGULATIONS FOR HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL (TSD) FACILITIES

No wastes shall be stored, recycled, reprocessed, treated and disposed of in facilities other than those facilities prescribed in Section 5.1 and permitted by the Department.

## *5.1 CATEGORIES OF TSD FACILITIES*

Table 5.1 are the following categories of TSD facilities approved by the DENR:

**Table 5.1 Categories of TSD Facilities**

| Category | Description |
|---|---|
| A | Facilities that conduct onsite treatment and disposal of hazardous wastes generated within the facility that employs or utilizes technologies from Categories B to E |
| B | Facilities that commercially treat industrial hazardous wastes using thermal technologies either burn or non-burn<br><br>B.1 Burn technologies such as plasma arc, pyrolysis, gasification, rotary or fluidized bed incinerator, cement kiln, etc.<br><br>B.2 Non-burn technologies such as autoclave, microwave, sterilization, hydroclave, irradiation, etc. |
| C | Landfills that only accept hazardous wastes for final disposal<br><br>C.1 Facilities that accept only inert or treated hazardous wastes for final disposal in a dedicated cell<br><br>C.2 Facilities that accept hazardous wastes for final disposal such as solidified, encapsulated wastes, etc. under Class K of this procedural manual |

| Category | Description |
|---|---|
| D | Facilities that recycle or reprocess hazardous waste, which are not generated or produced at the facility<br><br>D.1 Facilities include those that recover valuable materials, i.e. used or waste oil, solvents, acids, alkalis, metals, etc.<br><br>D.2 Facilities include those that use hazardous wastes as input materials or alternative fuel for industrial processes<br><br>D.3 Facilities include those that remediate contaminated soil thru physical, chemical or biological treatment. |
| E | Facilities that accept and treat hazardous wastes, which are not generated or produced at the facility using immobilization, encapsulation, polymerization, or similar processes.<br><br>Facilities include those that receive hazardous wastes outside the premises and transform physical or chemical characteristics of the hazardous wastes by physico-chemical or thermal treatment to dispose them into facilities in Category C:<br><br>E.1 Facilities to solidify organic sludge, ashes, and other hazardous wastes<br>E.2 Facilities to solidify inorganic sludge, ash, and other inorganic hazardous wastes<br>E.3 Physico-chemical treatment facilities including neutralization, oxidation, and reduction of waste acid, waste alkali, or waste solution containing cyanide or chromium<br>E.4 Facilities that chemically treat POPs<br>E.5 Facilities that chemically treat infectious or pathogenic wastes<br>E.6 Facilities that decontaminate containers that used to contain chemicals and hazardous wastes |
| F | Facilities that store hazardous wastes, which were not generated from the facility awaiting transport for treatment, disposal, or export such as:<br><br>F.1 Material Recovery Facilities<br>F.2 Buildings that store containers, vessels, or tanks containing hazardous wastes<br>F.3 Built tanks that store liquid hazardous wastes |

## *5.2 REQUIREMENTS FOR TSD FACILITIES*

### 5.2.1 Registration Procedure

A person who wishes to be registered as TSD Facility by the DENR shall register online and pay the corresponding fees to the EMB. The Manual for Online Registration is shown in Appendix 1.

Before registering, ensure that the following documents are available:

a. Environmental Compliance Certificate (ECC), Permit to Operate and Discharge Permit for the TSD facility;

b. Environmental Guarantee Fund (as per DAO 2000-05, Revising DENR Administrative Order (DAO) No. 94-11, Supplementing DENR Administrative Order No. 96-37, Series Of 1996, and Providing for Programmatic Compliance Procedures within the Environmental Impact Statement (EIS) System) in the form of commercial insurance, surety bond, trust fund, or a combination thereof, whose amount is commensurate to the identified risks (from the Risk Assessment Studies) and callable upon demand by the Department during spill or emergency;

c. Process flow and detailed description of each treatment, recycling, disposal process technology including overall material balance identifying all by-products, end-products and residues;

d. Wastes acceptance criteria and procedure to ensure that the TSD facility shall not accept wastes beyond its capacity, including quantity and quality;

e. In case of recycling and recovery facility, recovered material or product shall meet the product standard;

f. Storage Management Plan for raw materials, residues, by-products and end-products;

g. Long-term plan for the recycled, processed, recovered and end-products;

h. Contingency and Emergency Plan based on Hazard Identification and Risk Assessment Studies; and

i. Valid contract with a registered Transporter(s).

For facilities that are covered by DAO 2010-06 (Guidelines on the Use of Alternative Fuels and Materials in Cement Kilns), registration requirements must be complied with.

The EMB will conduct inspection at the facility and may require other data and information in addition to those listed above as part of the review process.

If the applicant meets the requirements stipulated in the foregoing paragraphs, the EMB will approve the application assigning a TSD Registration Identification (ID) Number and automatically include in the list of Registered TSD Facility uploaded in the EMB website. The applicant will likewise receive USERNAME and PASSWORD that will be used in accessing the Hazardous Waste Manifest System.

The applicant shall likewise be issued an official TSD Registration Certificate that will either be (a) Temporary Registration Certificate valid for three (3) months to allow to conduct trial burn or test run for facilities in Categories A, B, D and E or (b) Regular TSD Facility Registration Certificate

The maximum validity of TSD Registration Certificate is one (1) year and this may be revoked if any of the requirements is not complied with.

### 5.2.2 Minimum Considerations for Siting TSD Facilities

The following guidelines, standards, and criteria shall be applied in siting TSD Facilities:

a. Consistent with the overall land use plan of the LGU;

b. Accessible from major roadways and thoroughfares; and

c. Located in an area where the TSD operation will not detrimentally affect sensitive resources, such as aquifers, groundwater reservoirs, watershed areas, by provision of the following special mitigating measures and additional criteria:

- Shall not be constructed within 75 meters from a Holocene fault or known recent active fault
- Shall not be located in areas where they are known to be habitat of listed endangered species
- Shall not be located in a floodplain and reclaimed areas
- Shall be located at least 50 meters away from any perennial stream, lake or river
- Groundwater monitoring wells shall be placed at appropriate locations and depth that are representative of groundwater quality and for predicting groundwater flow

### *5.3 REQUIREMENTS FOR EXISTING TSD FACILITIES*

Operators of TSD facilities, which are already in existence or for which an ECC has already been issued before this Regulation is adopted (hereinafter referred to as existing TSD facilities), are required to update their registration online. EMB shall issue USERNAME and PASSWORD to the existing TSD facilities.

Existing TSD facility shall within ten **(10) working days** from the issuance of this Regulation, update their registration online. Failure will mean delisting from the TSD register uploaded in the EMB website.

### *5.4 REQUIREMENTS FOR RENEWAL OF A TSD FACILITY REGISTRATION*

One (1) month before the renewal date of the TSD Facility Registration, the TSD facility shall receive computer generated notification for renewal. The TSD facility shall then update the registration information and submit the required documents together with the receipt of payment.

### *5.5 CONDITIONS TO AMEND A TSD FACILITY REGISTRATION*

A TSD facility may apply for amendment of its registration to the EMB Central Office when it changes any of the following:

a. Waste class that the TSD facility will accept without changes in the treatment process;

b. Capacity of the TSD facility to treat, store, recycle, or dispose of wastes; and

c. Operation plan (length of operation, closure plan, or post-closure plan).

The TSD facility shall notify the EMB Central Office through the Online Hazardous Waste Registration System and clearly disclose the intent of the request for amending the TSD Registration. The EMB Central Office (through the System Administrator) shall in turn provide access to the TSD facility for updating the TSD facility's Registration Record. In this manner, the TSD facility has to go through the same Registration Process in Appendix 1.

### *5.6 CANCELLATION OF A TSD FACILITY REGISTRATION*

The following shall be grounds for TSD Facility Registration cancellation:

a. Failure to comply with registration conditions;

b. Failure to pay the penalties and fines imposed for violation of RA 6969 and its IRR; and

c. Failure to comply with any of the requirements under the Hazardous Waste Manifest System.

### *5.7 WASTE ACCEPTANCE CRITERIA*

The TSD facility shall reject the waste if any of the waste acceptance criteria is not complied with. Interim storage at the TSD facility (that is, storage until the issue is resolved) is **not** permitted. If such cases occur, the TSD facility shall immediately inform the EMB (Central Office and the EMB Regional Offices) that have the jurisdiction over the waste generator, transporter, and TSD facility.

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

a. Notification to the TSD facility through the Online Hazardous Waste Manifest System and compliance to its requirements;

b. Containers are properly labeled as to the type of wastes and the corresponding potential hazards;

c. Independent random analysis undertaken by the TSD facility to verify the type of wastes indicated in the manifest; and

d. Wastes are not transported by the transporter indicated in the manifest.

## *5.8 MINIMUM CONSIDERATIONS FOR POST-CLOSURE OF TSD FACILITIES*

Closure of the TSD Facilities shall be completed within one (1) year of cessation of its operation. Within this period, a comprehensive site investigation study shall be performed establishing the environmental condition of the area, clearly indicating the absence of any traces of contamination. Should evidence show any presence of contamination, the TSD Facility shall perform remedial action until such time that the environmental condition of the site become acceptable to the Department.

# 6.0 HAZARDOUS WASTE STORAGE AND LABELING

This chapter prescribes the rules and regulations governing proper waste storage and labeling that must be complied with by waste generators, transporters, and TSD facilities.

## *6.1 STORAGE FACILITIES*

Waste generators, transporters, and TSD facilities storing hazardous wastes shall comply with the requirements detailed in the succeeding Sections.

### 6.1.1 Requirements for Storage Facilities

At a minimum, storage facilities shall meet the following requirements:

a. Be accessible in cases of emergency and for purposes of inspection and monitoring;

b. Be enclosed but adequately ventilated;

c. Have floors that are impermeable to liquids and resistant to attack by chemicals, not slippery, and constructed to retain spillages;

d. Be properly secured and not easily accessed by unauthorized persons;

e. Have provision for proper waste segregation in accordance with the following:

- Chemical properties – Wastes with incompatible chemical properties that could react with each other, such as strong acids and strong bases, should be placed in separate containers and kept in separate spill containment areas.
- Waste type – Hazardous wastes shall be segregated from low-level radioactive, mixed, healthcare, and non-hazardous wastes. In addition, solids, liquids, and gases (aerosols or gas cylinders) shall be placed in separate containers and kept in separate spill containment areas.

f. Have provision for proper drum handling and storage as described in the following:

- Store drums in upright position on pallets and stack no more than two (2) drums high
- Raised drums on pallets or similar structures to allow passage of water and circulation of air
- Check all drums for leaks
- Store filled drums on their side and should not be stacked. Storage of drums on their side is not recommended because of possible environmental stress such as crack failure of the closures.
- If drums are to be stored horizontally in racks, provide support for the entire length of the drum
- Observe adequate safety precautions at all times when handling drums filled with hazardous materials;

g. Have full emergency response equipment corresponding to the class of wastes being stored and potential emergencies associated with it; and

h. Ensure that all categories of wastes allowed to be stored within a prescribed period are treated or sent to appropriate TSD facilities. Otherwise, the storage facility owner or manager shall clean up the area and dispose the waste to prevent environmental damage.

### 6.1.2 Storage Time Limits

The maximum hazardous waste accumulation time is one (1) year, except for wastes that have no existing infrastructure for proper treatment and disposal.

### 6.1.3 Types of Vessels, Containers, Tanks, and Containment Buildings

The following are the allowed vessels, containers, tanks, or containment building for wastes storage:

- Metal drum (with lid or cap)
- Plastic container (with lid or cap)
- Metal container (with lid or cap)
- Cloth container or jumbo bag
- Container van

- Tanker truck
- Built tank
- Containment building or warehouse (completely enclosed structure with walls, roof, and floor used to store non-containerized waste, such as bulky and high volume non-liquid waste)

Waste generators, transporters, and TSD facilities must use appropriate containers for each class of wastes. Table 6.1 shall be strictly complied with:

**Table 6.1 Appropriate Containers per Type of Wastes**

| Type | Content |
|---|---|
| Polyethylene Drums | Acids and bases |
| Metal drums | Flammables, solvents, and paints |
| Fiber Drums | Granular materials |

## *6.2 LABELING REQUIREMENTS*

Vessels, containers, tanks, and containment buildings shall comply with the labeling requirements discussed in the succeeding sections.

### 6.2.1 Form of Labels Attached to Vessels, Containers, Tanks, and Containment Buildings

All waste generators, transporters, and TSD facilities that store hazardous wastes shall ensure that wastes are labeled as enumerated below:

a. Minimum size of the label is 20cm x 30cm or readable five (5) meters away;

b. Color of the label is yellow for background and black for letters conspicuously marked in paint or other permanent form of marking;

c. Material of the label should be scratch-proof and resistant to tampering and weathering;

d. Basic form is provided in Figure 6.2

e. Label is accompanied by a placard corresponding to characteristics of the wastes contained in the vessel, container, tank, or containment building as specified in Section 6.3 of this Guideline

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

**Figure 6.2 Basic Form of the Label Attached to Vessels, Containers, Tanks, and Containment Buildings containing Hazardous Waste**

| HAZARDOUS WASTE | | |
|---|---|---|
| Waste Information | HW Class and No. | Name of the hazardous waste class as specified in the revised Table 1of Chapter 2 of this Procedural Manual |
| | Characteristic & Form | Toxic, Corrosive, Flammable, Explosive, Reactive, and/or Infectious |
| | | |
| | Volume | Volume of the hazardous waste contained in the vessel, container, tank, or containment building |
| | Packaging date | Date on which the hazardous waste is packed in the vessel, container, tank, or containment building |
| | Shipping date | Date on which the hazardous waste must be removed from the storage area and transported offsite if applicable |
| | Waste transport record number | Manifest number if transported offsite |
| 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 # | Telephone number of the waste generator |
| | Fax # | Fax number of the waste generator |
| | Name of HWMS or PCO | Name of hazardous waste management supervisor (HWMS) or the PCO |

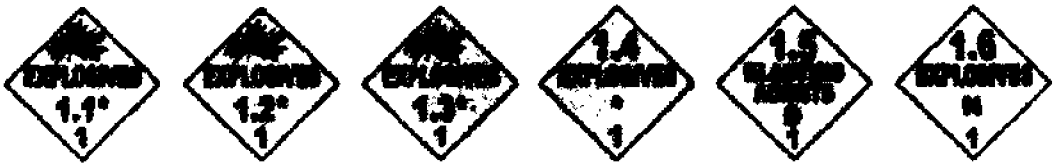
### 6.2.2 Position of the Label Attached to Vessels, Containers, Tanks, and Containment Buildings

The label shall be attached to the side of the vessel, container, or 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 the wastes. In case of a containment building, all types of wastes contained in the building should be included in the plate.

## *6.3 PLACARDS ACCOMPANYING THE LABEL*

The following placards should accompany the label representing the hazard classification of wastes:

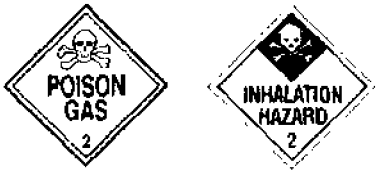
- Class 1 – Explosives




- Class 2 – Gases
  - Division 2.1 – Flammable Gases


  - Division 2.2 – Non-flammable Gas


  - Division 2.3 – Poison Gas



- Class 3 – Flammable Liquids and Combustible Liquids


- Class 4 – Flammable Solids; Spontaneously Combustible Materials; Dangerous when Wet Materials

  - Division 4.1 – Flammable Solids

  - Division 4.2 – Spontaneously Combustible Materials

  - Division 4.3 – Dangerous When Wet Materials


- Class 5 – Oxidizers and Organic Peroxides

  - Division 5.1 – Oxidizers


  - Division 5.2 – Organic Peroxides

- Class 6 – Poisons
    - Division 6.1 – Poisonous Materials


    - Division 6.2 – Infectious Substances


- Class 7 - Radioactive Materials


- Class 8 - Corrosive Materials


- Class 9 - Miscellaneous Dangerous Goods


### 6.3.1 Specifications of the Placard

All waste generators, transporters, and TSD facilities that store hazardous wastes shall ensure that wastes have placards as specified below:

a. Minimum size of the placard is 10cm x 10cm for vessels, containers, and tanks or readable from five (5) meters afar

b. For waste transporting vehicles, readable from ten (10) meters afar and a minimum size of 30cm x 30cm

c. Basic shape of the placard is a square rotated 45 degrees to form a diamond

d. At each of the four sides, a parallel line shall be drawn to form an inner diamond 95% of the outer diamond

e. Color should follow the colors specified in Section 6.3

### 6.3.2 Position of the Placard Attached to Vessels, Containers, Tanks, and Containment Building

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

Conveyances transporting wastes shall place the corresponding placards at all sides of the waste transporting vehicles.

## *6.4 PACKAGING REQUIREMENTS*

Vessels, containers, tanks, and containment buildings shall comply with the packaging requirements discussed in the succeeding sections.

### 6.4.1 Requirements for Vessels, Containers, Tanks, and Containment Buildings

Vessels, containers, tanks and containment buildings used for storage of hazardous wastes shall be required to be:

a. In good condition without leaks or damage;

b. Made from materials suitable for the characteristics of the wastes to be stored; and

c. Equipped with a strong lid or cap to prevent spillage during transport.

### 6.4.2 Packaging Procedures

A person who is packaging wastes in a vessel, container, tank, or containment building shall ensure that:

a. Each vessel, container, tank, or containment building contains either only one type of waste or, when mixed, consist only of class of wastes with similar or mutually compatible characteristics (usually within a hazardous waste subcategory);

b. Voids are not left in the vessel, container, tank, or containment building for self-reacting wastes;

c. Vessels, containers, or tanks are tightly sealed;

d. Used vessel, container, and tank is cleaned before being reused for storing wastes incompatible with that previously stored;

e. Multiple wastes are packed separately according to type and composition;

f. No liquids shall be placed in a drum containing solid waste and that is marked *SOLID WASTE* or vice versa;

g. Wastes in small containers (e.g., 1-liter bottles) that are compatible with each other are packed in a larger over pack container. Each individual container are labeled with its contents and properly sealed. Absorbents are placed in the bottom of the over pack container as well as around and on top of the containers. At a minimum, usage of absorbent shall be enough to absorb the contents of the largest container in the over pack. In addition, the absorbent must be compatible with the waste in the container;

h. Wastes in aerosol cans, compressed gases, and pressurized liquids, are packaged separately from other wastes. Ensure that the nozzles are not removed from the aerosol cans unless they are designed to be completely removed. If available, the plastic protector cap shall be restored back on the can. Waste aerosol cans shall be packed in containers that are less than or equal to 20 liters. Because of the danger of explosion, avoid filling a 200-Liter drum with aerosol cans; and

i. Concentrated acids, bases, and other similar wastes, are placed back in their original glass containers, and placed in their original foam packaging. Acid solutions with pH <3, regardless of concentration, are placed in containers of larger than 20 liters and are packaged in stainless steel drums.

# 7.0 HAZARDOUS WASTE TRANSPORT RECORD (MANIFEST SYSTEM)

No wastes shall be transported or treated without going through the Online Hazardous Waste Manifest System. Appendix 2 shows the detail of the Hazardous Waste Manifest System Process Flow.

## *7.1 WASTE GENERATOR INITIATING THE PROCESS*

Waste generator wanting to have its wastes treated shall initiate the Online Hazardous Waste Manifest System. The waste generator shall log into the system using the USERNAME and PASSWORD provided for during the registration process.

The waste generator shall fill in the necessary information required for in the system. Once the manifest form is submitted, the waste generator shall automatically received email notification requiring payment for the manifest system.

Using the print out notification, the waste generator shall proceed to the EMB Regional Office to pay the corresponding fees. The Official Receipt (OR) number is an important requirement before the EMB Regional Office process the manifest system.

The waste generator shall input the OR number into the manifest system. The EMB Regional Office shall then evaluate the waste generator Manifest Application.

Once approved, the EMB Regional Office shall send Notice of Acceptance to the waste generator as well as to the waste transporter indicated in the Manifest Application.

## *7.2 TRANSPORTER CONTINUING THE MANIFEST APPLICATION*

Upon receiving the Notice of Acceptance, the waste transporter shall log into the system using the USERNAME and PASSWORD provided during the accreditation process. The waste transporter shall fill in the required information and submit online.

The EMB Regional Office shall then evaluate the Transporter Manifest Form and, upon approval, issue the Hazardous Waste Manifest Acknowledgement Letter, which authorizes the waste transporter to pick up and transport wastes from the waste generator to the TSD facility indicated in the Manifest Form. The waste transporter is required to have the original copy of the

Hazardous Waste Manifest Acknowledgement Letter and shall bring the same during transport of the waste specified in the Manifest Form.

Once the original copy of the Hazardous Waste Manifest Acknowledgment Letter is secured from the EMB Regional Office, the waste transporter is now authorized to pick up the wastes from the generator and transport to the TSD facility.

Simultaneously, the EMB Regional Office shall send a Notice of Acceptance to the TSD facility requiring the facility to fill in the necessary information in the Manifest Form.

### *7.3 TSD FACILITY CONTINUING THE MANIFEST APPLICATION*

Within two (2) days upon receipt of the Notice of Acceptance as well as receipt of the wastes, the TSD facility shall log into the system using the USERNAME and PASSWORD provided during the accreditation process. The TSD facility shall fill in the required information and submit online, clearly specifying the exact date the wastes are received from the waste transporter indicated in the Manifest Form.

Within forty-five (45) days from receipt of the wastes, the TSD facility shall fill in the required portion in the Manifest Form, and issue the Certificate of Treatment (COT).

The EMB Regional Office shall then evaluate the Treater Manifest Form and, upon approval, issue Acceptance Letter and close-out the Manifest Form.

# 8.0 CONTINGENCY PROGRAM

This Chapter provides the framework for establishing and maintaining appropriate and effective Contingency Program to the health and environmental impacts arising from accidental releases of hazardous materials into the environment. It outlines the minimum requirements for preparing Contingency Program, allowing better compliance among the regulated communities and facilitating ease of review among EMB personnel, both in the Central and Regional Offices.

## *8.1 OBJECTIVE OF CONTINGENCY PROGRAM*

The Contingency Program is developed and designed to mitigate and combat spills involving chemical substances and/or hazardous wastes. The Program provides assurance to EMB, nearby communities, and other stakeholders on the emergency preparedness and response capacity of waste generators, transporters, and TSD facilities.

## *8.2 CONTENT OF THE CONTINGENCY PROGRAM*

At a minimum, the Contingency Program shall contain the following aspects as discussed in the succeeding sections.

### 8.2.1 Emergency Response Organizational Structure

The Emergency Response Organizational Structure shall clearly define the key members of the organization and their specific roles and responsibilities. The structure shall include the linkage between the organization and the government agencies such as EMB, Fire Department, Philippine Coast Guard (in cases where the location of the plant is near coastal and marine waters), Local Government Units, and other relevant local and national agencies.

Various models can be used as pattern for the Emergency Response Organizational Structure such as the Incident Command System. The important consideration is that the structure depicts the span of control of the organization in terms of activating its personnel in emergency cases.

### 8.2.2 List of Potential Emergencies and Scenarios

The organization shall identify all potential emergencies arising from handling, storing, and transporting of hazardous materials. Possible scenarios shall be developed for each potential emergency. The list of potential emergencies and corresponding scenarios is an integral part of the Contingency Program and shall be the basis for developing Spill and Chemical Release Response Plans.

### 8.2.3 Specific Procedure for Responding to Spills or Chemical Releases

Based on the identified potential emergencies and possible scenarios, the organization shall develop specific Response Procedures outlining the following:

a. Type of emergencies

b. Scenario

c. Notification procedure (including notification to communities in case the scenario involves having the spills migrating outside the boundary of the facility)

d. Response Organization

e. Layout plan indicating the location of the source of spills, potential plume of the chemical release, location of personnel

f. Evacuation route

g. PPE specific to the type and characteristics of chemical release

h. Step by step process to contain and confine the spills

i. Response equipment

k. Decontamination process

The Response Plans shall also include process for recovery and clean-up.

| |
|---|
| In the case of the waste transporters, the Response Procedures shall be specific to the Transport Itinerary or route submitted as part of the Hazardous Waste Manifest System requirements. |

### 8.2.4 Schedule and Conduct of Drills

The organization shall include in their Contingency Program schedule and conduct of drills at least once a year. Records of drills shall be submitted as part of the quarterly SMR under Hazardous Waste Management.

## *8.3 TRAINING AND AWARENESS PLAN*

The Training and Awareness Plan shall include training of personnel on the implementation of the Contingency Program. In addition, it shall include specific trainings for the members of the Emergency Response Organization.

## *8.4 REPORTING AND RECORDKEEPING*

In cases where actual chemical releases occur and the Contingency Program has been activated, the organization shall notify EMB within 24 hours of initiating the Contingency Program. It shall record all response activities and submit the corresponding Incident Report to EMB.

The organization shall maintain these Incident Reports and response records for two (2) years after the incident. A summary of the chemical release incidents and corresponding response action shall likewise be submitted every 1st SMR of the year.

## *8.5 UPDATING THE CONTINGENCY PROGRAM*

The organization shall update their Contingency Program and submit the same to EMB when any of the following occurs:

a. Change in process operations

b. Use of new chemicals and/or generation of new hazardous waste

c. Change in the Emergency Response Organizational Structure

d. Actual release of chemical(s) and activation of the Contingency Program

e. Significant change in the Response Procedures (resulting from drills)

Absence of the above, the organization shall review the Contingency Program every three (3) years and submit the same to EMB.

# 9.0 PERSONNEL TRAINING

All waste generators, transporters, and TSD facilities shall train their personnel and staff on the following:

a. Hazardous Waste Management that includes:

- Regulatory framework for toxic and hazardous substances in the Philippines
- Waste identification (types and characteristics)
- Hazards and risks in handling hazardous wastes
- Labeling and Placarding
- Proper storage
- Public participation and risk communication,
- Site investigation and remediation,
- Siting of waste management facilities
- Waste minimization/Cleaner Production
- Treatment and disposal technologies
- Healthcare waste management

b. Contingency Plan

- Types of potential emergencies arising from wastes handling, storage, and treatment and disposal
- Emergency preparedness and response including response to fire, explosion, spill, loss of electricity, evacuation, natural catastrophes, civil disturbance, war, and other cases of *force majeure.*
- Health and safety plans
- Personnel protective equipment,
- Decontamination procedures,
- Incident command systems,

c. Compliance Monitoring Procedures

- Laws and regulations concerning hazardous waste management
- Monitoring requirements

# 10.0 IMPORT OF RECYCLABLE MATERIALS CONTAINING HAZARDOUS SUBSTANCES AND EXPORT OF HAZARDOUS WASTES

Consistent with Department Administrative Order (DAO) No. 28, Series of 1994, Department Administrative Order No. 28, Series of 1997, Department Administrative Order No. 27, Series of 2004, and Department Administrative Order No. 66, Series of 2004, importation of recyclable materials containing hazardous substances, shall be allowed only upon obtaining prior written approval from the Secretary of the Department of Environment and Natural Resources or his duly authorized representative, and in accordance with the rules and regulations stipulated herein.

Hazardous Waste are allowed to be exported for recovery, treatment and final disposal and to countries which are Parties to the Basel Convention on the Transboundary Movement of Hazardous Wastes and their Disposal or to countries with existing bilateral, multilateral and regional agreements as provided for in Article 11 of the Convention.

Import of recyclable materials containing hazardous substances or export of hazardous waste, are approved by the DENR through the EMB Central Office when all the requirements indicated in this Chapter are met. The import or export clearance shall be issued after the consent from the Competent Authority of the importing and exporting countries have been received by the EMB. An import or export clearance shall have the validity of six (6) months, unless otherwise specified by the approval of the importing country.

## *10.1 LEGAL FRAMEWORK*

Import or export under the provisions of this Chapter shall be undertaken consistent with the provisions of the Basel Convention and Republic Act 6969.

Recognizing the risk of damage to human health and the environment caused by hazardous wastes and the transboundary movement thereof, the Basel Convention adopted the following rights and obligations, among others, of the Party States:

a. Prohibit the import of hazardous waste for final disposal operation.

b. Prohibit or not permit the export of hazardous waste to those Parties which have prohibited the import of such waste

c. Prohibit or not permit the export of hazardous waste not specifically prohibited by the importing country if the importing country has not given its prior consent in writing

Import of recyclable materials containing hazardous substances and export of hazardous waste shall be made in conformity with the said rights and obligations, especially to providing prior consent in writing to the importing and transit countries.

## *10.2 REQUIREMENTS FOR IMPORTERS OF HAZARDOUS WASTES*

### 10.2.1 Registration Requirements

All importers of recyclable materials containing hazardous substances as listed in Table 10.1, must first register with the Department, through EMB, by filling up and submitting Form R-1 (template of which is available in the EMB website) detailing interalia the following information:

a. Names and addresses of waste importer and recycling facilities;

b. Types and quantities of the imported recyclable material;

c. Physical and chemical characteristics;

d. Justification for the import;

e. Methods for handling, including collection, packaging, labeling, transportation, and route which must conform with internationally accepted standards;

f. Listing of personnel who will be responsible for supervising the collection, transport and unpacking of the recyclable materials and their respective qualifications; and

g. Emergency response plan describing steps to be taken by parties concerned in case of spill or accident which may occur during transport from the premises of the recyclable material generator to the importer.

**Table 10.1 Schedule of Recyclable Materials Containing Hazardous Substances that may be Imported Subject to the Corresponding Limiting Conditions**

| CATEGORY | SPECIFIC ITEM | LIMITING CONDITIONS |
|---|---|---|
| 1. Scrap Metals | a. Scrap and waste containing precious metals and their alloys of:<br><br>- Gold<br>- Platinum (which include iridium, osmium, palladium, rhodium and ruthenium)<br>- Silver<br><br>b. Metal sludges containing precious metals and all associated metals<br><br>c. Ferrous waste and scrap for remelting<br><br>- Cast iron<br>- Stainless steels<br>- Other alloy steels<br>- Tinned iron or steel<br>- Turnings, shavings, chips, milling waste, fillings, trimmings and stampings<br>- Used iron and steel nails<br><br>d. Non-ferrous scraps and alloys<br><br>e. Other metal bearing waste arising from melting, smelting and refining of metals of: | All materials under this category should not contain radioactive materials such as Cesium (Cs), Cobalt (Co), Americium (Am), Strontium (Sr), lanthanide, actinide and others as determined by PNRI.<br><br>The alloys or metals shall not contain mercury and its compounds. |

| CATEGORY | SPECIFIC ITEM | LIMITING CONDITIONS |
|---|---|---|
| | - Hard zinc smelter<br>- Zinc containing drosses such as galvanizing slab zinc top dross (>90% Zn); slab zinc bottom dross (>92% Zn); Zinc die cast dross (>85% Zn); Hot tip galvanizers zinc dross (>92% Zn)<br>- zinc skimmings<br>- slags from processing for further refining<br><br>f. Used Lead-Acid Batteries (ULABs) | All used Lead-Acid Batteries (ULABs) imported shall be free of extraneous materials and properly packaged to prevent leakages.<br><br>Only recycling facilities with capacity to handle and treat battery acid solutions and have an environmentally sound disposal plan for the residual wastes generated shall be allowed to import. |
| 2. Solid Plastic Materials | a. Waste parings and scrap of plastics<br>b. polymerized or co-polymerized<br>c. Resins of condensation products | No importation of heterogenous and unsorted plastic materials shall be allowed.<br><br>All plastics shall have no traces of toxic materials like Asbestos. |
| 3. Electronic Assemblies and | a. All electronic assemblies containing printed circuit boards | Refer to Basel Convention |

| CATEGORY | SPECIFIC ITEM | LIMITING CONDITIONS |
|---|---|---|
| Scrap | b. Electronic components containing hazardous substances such as T.V.s, VCR, stereo, etc. | • Waste electrical and electronic assemblies or scrap* (including printed circuit boards) not containing components such as accumulators and other batteries included on list A (of the Basel Convention), mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or not contaminated with Annex I constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the characteristics contained in Annex III<br><br>* This entry does not include scrap from electrical power generation. |
| 4. Used Oil | a. Spent oil such as waste oil or oil residues | No importation of tanker sludge shall be allowed; Spent oil shall have no traces of polychlorinated biphenyls (PCBs)<br><br>All residuals of recycled material which contain Hazardous substances without any acceptable disposal methods in the Philippines shall be shipped back to the country of origin. |
| 5. Fly-ash | a. Coal-Fired Power Plant Fly-ash | Coal-fired power plant fly-ash containing Annex I substances in concentrations sufficient to exhibit Annex III characteristics (note the related entry on Basel Convention list B B205) |

| CATEGORY | SPECIFIC ITEM | LIMITING CONDITIONS |
|---|---|---|
| | | shall not be allowed for importation.<br><br>Pre-treatment of the fly ash shall conform with the requirement for clinker or cement production and should be undertaken at the country of export.<br><br>Any residual or wastes fly ash which could not be used in the cement production must be shipped back immediately to the country of origin. |

### 10.2.2 Procedure for Registration Application

The EMB shall, upon receipt of the registration application, determine the completeness of the submission and coordinate with the concerned EMB Regional Office to inspect the recycling/receiving facility. Upon determination that the applicant has the capability to recycle the imported material in an environmentally acceptable manner, the EMB shall consider the importer as "registered".

The registered importer may proceed with the importation by submitting the required import applications to the DENR.

### 10.2.3 Importation Clearance Requirement for each Shipment

Each shipment of imported recyclable material shall be covered by an Importation Clearance (IC) which shall be applied for at least thirty (30) working days prior to the actual importation. Only duly registered importers may apply for the IC.

Application for IC for each shipment shall be made by filling up and submitting Form R-2 containing the following information:

a. Names and addresses of waste importer and receiving parties

b. Types and quantities of the imported materials

c. Registry Reference Code

d. Affidavit of undertaking specifying the following:

- Liabilities of parties for clean-up operations in case of spill and emergencies
- Responsibility of the exporter to retrieve/return the waste when denied entry by the Government of the Philippines (GOP)
- Copy of insurance coverage for the shipment
- Liabilities of parties to compensate for damages to properties and life in case of emergencies and accidents

The EMB shall process the application by comparing the submission (Form R-2) against the registered information (R-1). Once the examination is completed, an IC covering that particular shipment shall be issued to the importer stipulating the conditions for the importation.

The procedural flow for the processing of the applications for recyclable material importation appears as Annex 3.

### 10.2.4 Other Requirements for Hazardous Wastes Importers

All importers under this rule shall also be required to:

a. Designate a PCO

b. Comply with the storage and labeling requirements as described in Section 6 of this Procedural Manual

c. Comply with the waste transport record (manifest system) described in Section 7 of to convey the imported recyclable materials from the port to the importer's premises after securing an Importation Clearance

d. Prepare an emergency contingency plan as described in Section 8 of this Procedural Manual

e. Make 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

f. Secure a TSD facility Permit in accordance with these Regulations prior to importation in case the importer holds the imported recyclable materials containing hazardous substances for periods exceeding thirty (30) days

g. 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.

### 10.2.5 Testing and Sampling of Materials

The DENR reserves the right to require the testing and sampling of the imported recyclable materials at the expense of the importer. Refusal of the importer to the subject testing and sampling shall result in the immediate suspension of the Importation Clearance. Testing of imported materials shall be done by the DENR through its EMB laboratory or any of its duly recognized laboratories.

## *10.3 REQUIREMENTS FOR EXPORTERS OF HAZARDOUS WASTE*

All exporters of hazardous wastes shall be required to:

a. Submit Notification for EMB's transmittal to the Competent Authority of the importing and transit countries

b. Designate a 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 storage and labeling requirements as described in Section 6 of this Procedural Manual

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. Provide written consent on the transboundary movement of hazardous waste and/or recyclable materials containing hazardous substances from each State of transit, if applicable

h. Provide 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. Provide written confirmation of the existence of financial guarantee to cover cost for re-import or other measures that may be needed

# 11.0 PROHIBITED ACTS AND PENALTIES

## *11.1 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:

**Table 11.1 Fines for Administrative Violations**

| Administrative Violation | Fines (PhP) |
|---|---|
| a) Failure to provide appropriate information to the DENR upon registration | 50,000.00 |
| b) Submission of documents containing false information; | 50,000.00 |
| c) Failure to comply with reporting requirements under the law | 50,000.00 |
| d) Failure to comply with the conditions of a permit, except those specified herein | 50,000.00/ condition violated |
| e) Failure to comply with labeling requirements | 50,000.00 |
| f) Failure to place placards on the conveyance/vehicle | 50,000.00 |
| g) Failure to comply with the subpoena or subpoena duces tecum issued by the Secretary or his duly authorized representative | 50,000.00 |
| h) Failure to provide required information within the period mandated by these regulations | 50,000.00 |
| i) Violation of any of the provisions on the Governing Rules and Regulations | 10,000.00 |
| j) In addition to the above stated penalties, violation of any of the provisions on any of the Governing Rules and the rules covering the Contingency Program shall result in the immediate suspension of the Permit issued to said violator | |
| **Waste Generators** | |
| a) Failure to submit a completed copy of the Hazardous Waste Manifest Form to the DENR | 50,000.00 |
| b) Performs the functions of a TSD Facility without the appropriate TSD Facility Permit | 50,000.00 |
| **Waste Transporters** | |
| a) Conveys or transports hazardous wastes without the proper manifest forms | 50,000.00 |
| b) Conveys or transports hazardous wastes without the proper labels and placards | 50,000.00 |

| Administrative Violation | Fines (PhP) |
|---|---|
| c) Conveys or transports hazardous wastes in transports not suitable for the hazardous waste being transported | 50,000.00 |
| **TSD Facilities** | |
| a) Accepts hazardous wastes without the proper manifest | 50,000.00 |
| b) Stores, recycles, reprocesses, treats or disposes of hazardous wastes at a TSD facility without the appropriate TSD facility permit | 50,000.00 |
| c) Failure to notify the DENR of the residuals generated as a consequence of its recycling, reprocessing or treatment activities | 50,000.00 |
| **Importers and Exporters** | |
| a) Importing recyclable materials containing hazardous substances without securing import clearance from the DENR | 50,000.00 |
| b) Exporting hazardous wastes or materials containing hazardous substances without securing an export clearance from the DENR | 50,000.00 |

# 12.0 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 and exportation of recyclable materials containing hazardous substances in the country.

The EMB Regional Offices shall monitor the transport and movement of hazardous waste based on the Hazardous Wastes Tracking System. The EMB Central and Regional Offices shall also conduct actual inspection of facilities.

# 13.0 SCHEDULE OF FEES

The following shall be prescribed fees for the various activities related to Hazardous Waste Management.

| | |
|---|---|
| HAZARDOUS WASTE GENERATORS, TRANSPORTERS AND TSD FACILITIES | |
| 1. Registration of hazardous waste generators | PhP 600.00/generator |
| 2. Annual Registration of Transporters | PhP 500.00/vehicle |
| 3. Permit to Transport | PhP 500.00/hazardous waste |
| 4. Annual Registration of TSD Facility | PhP 15,000/facility |
| 5. Annual Registration of Co-Processing Facility (Non-Hazardous Waste) | PhP 5,500/facility |
| EXPORT AND IMPORT OF HAZARDOUS WASTES | |
| 1. Application Fee for Notification | PhP 500.00/notification |
| 2. Issuance of an Export Clearance | PhP 2,000.00/clearance |
| 3. Issuance of an Importation Clearance | PhP 2,000.00/clearance |
| 4. Registration of Importer of HW | PhP 5,000.00 / importer |

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 and clearance.

# Appendix 2
# Hazardous Waste Manifest System Process Flow