

EXCERPTS FROM THE MINUTES OF THE SANGGUNIANG PANLUNGSOD ON ITS 5TH REGULAR SESSION HELD ON FEBRUARY 07, 2011 AT THE SANGGUNIANG PANLUNGSOD SESSION HALL, CITY OF LIGAO, PROVINCE OF ALBAY.

Present:

Hon. Patricia G. Alsua	-City Vice Mayor/Presiding Officer
Hon. Sherwin P. Quising	- City Councilor
Hon. Eva Josephine L. Ribaya	- City Councilor
Hon. Ana P. Manlangit	- City Councilor
Hon. Edgardo M. Gonzales	- City Councilor
Hon. Manuel L. Garcia	- City Councilor
Hon. Teodorico A. Residilla, Jr.	- City Councilor
Hon. Noel M. Cerillo	- City Councilor
Hon. Alfonso B. Saret	- City Councilor
Hon. Peter S. Vega	- City Councilor
Hon. Jorlan T. Guanzon	- City Councilor
Hon. Jowe G. Cañaverl	- City Councilor / Liga Pres.

Absent:

Hon. Shieresa Pauline Capulong	- City Councilor / SKF Pres./OB
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ORDINANCE NO. 2011-002
(Authors: Councilor JORLAN T. GUANZON)

AN ORDINANCE PROVIDING FOR AN ECOLOGICAL SOLID WASTE MANAGEMENT, CREATING THE NECESSARY INSTITUTIONAL MECHANISMS AND INCENTIVES, DECLARING CERTAIN ACTS PROHIBITED AND PROVIDING PENALTIES, APPROPRIATING FUNDS THEREFORE, AND FOR OTHER PURPOSES.

BE IT ORDAINED BY THE SANGGUNIANG PANLUNGSOD OF LIGAO, IN SESSION ASSEMBLED:

CHAPTER I
BASIC POLICIES

Article I
General Provisions

Section 1. Title. This ordinance shall be known as “**The Ligao City Ecological Solid Waste Management Ordinance of 2011**” adopting certain definitions, sections and provisions pursuant to and in accordance with Implementing Rules and Regulations (IRR) of Republic Act (RA) 9003: An act providing for an ecological solid waste management program, creating the necessary institutional mechanisms and incentives, declaring certain acts prohibited and providing penalties, appropriating funds therefore, and for other purposes, integrating all laws, orders, memorandum circulars, resolutions pertinent thereto and for other purposes and Republic Act 7160 which are applicable in its jurisdiction.

Section 2. Declaration of Policy. It shall be the policy of the LGU of Ligao City, Albay to adopt a systematic, comprehensive and ecological solid waste management program which shall:

- a.) Ensure the protection of public health and environment;
- b.) Utilize environmentally-sound methods that maximize the utilization of valuable resources and encourage resources conservation and recovery;

- c.) Set guidelines and targets for solid waste avoidance and volume reduction through source reduction and waste minimization measures, including composting, recycling, re-use, recovery green charcoal process, and other, before collection, treatment and disposal in appropriate and environmentally-sound solid waste management facilities in accordance with ecologically sustainable development principles;
- d.) Ensure the proper segregation, collection, transport, storage, treatment and disposal of solid waste through the formulation and adoption of the best environmental practices in ecological solid waste management excluding incineration;
- e.) Promote national research and development programs for improved solid waste management and resource conservation techniques, more effective institutional arrangement and indigenous and improved methods of waste reduction, collection, separation and recovery;
- f.) Encourage greater private sector participation in solid waste management;
- g.) Retain primary enforcement and responsibility of solid waste management with barangay councils while establishing a cooperative effort among the national government, other local government units, non-government organizations, academe, people's organization, and the private sector;
- h.) Encourage cooperation and self-regulation among waste generators through the application of market-based instruments;
- i.) Institutionalize public participation in the development and implementation of national and local integrated, comprehensive and ecological waste management programs; and
- j.) Strengthen the integration of ecological solid waste management and resource conservation and recovery topics into the academic curricula of formal and non-formal education in order to promote environmental awareness and action among citizenry.

Article II **Definition of Terms**

Section 3. Definition of Terms. For the purpose of this Ordinance, the following terms shall mean:

- a) Agricultural waste – refer to waste generated from planting or harvesting of crops, trimming or pruning of plants and wastes or run-off materials from farms or fields;
- b) Bulky wastes – refer to waste materials which cannot be appropriately placed in separate containers because of either its bulky size, shape or other physical attributes. These include large worn-out or broken household, commercial, and industrial items such as furniture, lamps, bookcases, filing cabinets and similar items;
- c) Bureau – refer to the Environmental Management Bureau;
- d) Buy-back center – refer to a recycling center that purchases or otherwise accepts recyclable materials from the public for the purpose of recycling such materials;
- e) City – refer to the City of Ligao;
- f) Collection – refer to the act of removing solid waste from the source or from a communal storage point;
- g) Composting – refer to the controlled decomposition of organic matter by microorganisms mainly by bacteria and fungi, into a humus-like product;

- h) Consumer electronics – refer to special wastes that include worn-out, broken, and other discarded items such as radios, stereos, and TV sets;
- i) Controlled dump – refer to a disposal site at which solid waste is deposited in accordance with the minimum prescribed standards of site operation;
- j) Department – refer to the Department of Environment and Natural Resources;
- k) Disposal – shall refer to the discharge, deposit, dumping, spilling, leaking or placing of any solid waste into or in any land.
- l) Disposal site – refer to a site where solid waste is finally discharged and deposited;
- m) Ecological solid waste management – refer to the systematic administration of activities which provide for segregation at source, segregated transportation, storage, transfer, processing, treatment, and disposal of solid waste and all other waste management activities which do not harm the environment;
- n) Environmentally acceptable – refer to the quality of being reusable, biodegradable or compostable, recyclable and not toxic or hazardous to the environment;
- o) Generation – refer to the act or process of producing solid waste;
- p) Generator – refer to a person, natural or juridical, who last uses a material and makes it available for disposal or recycling;
- q) Hazardous waste – refer to solid waste or combination of solid waste which because of its quantity, concentration or physical, chemical or infectious characteristics may:
 - 1. Cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or
 - 2. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed;
- r) Leachate – refer to the liquid produced when waste undergo decomposition, and when water percolate through solid waste undergoing decomposition. It is a contaminated liquid that contains dissolved and suspended materials;
- s) Materials recovery facility (MRF) – includes a solid waste transfer station or sorting station, drop-off center, a composting facility, and a recycling facility;
- t) Municipal waste – refer to wastes produced from activities within local government units which include a combination of domestic, commercial, institutional and industrial wastes and street litters;
- u) Open dump – refer to a disposal area wherein the solid wastes are indiscriminately thrown or disposed of without due planning and consideration for environmental and health standards;
- v) Opportunity – refer to the act of providing a place for collecting source-separated recyclable material, located either at a disposal site or at another location more convenient to the population being served, and collection service customers and to providing a public education and promotion program that gives notice to each person of the opportunity to recycle and encourage source separation of recyclable material;
- w) Person(s) – refer to any being, natural or judicial, susceptible of rights and obligations, or of being the subject of legal relations;

- x) Post-consumer material – refer only to those materials or products generated by a business or consumer which have served their intended end use, and which have been separated or diverted from solid waste for the purpose of being collected, processed and used as a raw material in the manufacturing of recycled product, excluding materials and by-products generated from, and commonly used within an original manufacturing process, such as mill scrap;
- y) Receptacle – refer to individual containers used for the source separation and the collection of recyclable materials;
- z) Recovered material –refer to material and by-products that have been recovered or diverted from solid waste for the purpose of being collected, processed and used as a raw material in the manufacture of a recycled product;
- aa) Recyclable material – refer to any waste material retrieved from the waste stream and free from contamination that can still be converted into suitable beneficial use or for other purposes, including, but not limited to, newspaper, ferrous scrap metal, non-ferrous scrap metal, used oil, corrugated cardboard, aluminum, glass, office paper, tin cans, plastics and other materials as may be determined by the Commission;
- bb) Recycled material – refer to post-consumer material that has been recycled and returned to the economy;
- cc) Recycling – refer to the treating of used or waste materials through a process of making them suitable for beneficial use and for other purposes, and includes any process by which solid waste materials are transformed into new products in such a manner that the original products may lose their identity, and which may be used as raw materials for the production of other goods or services: Provided, that the collection, segregation and re-use of previously used packaging material shall be deemed recycling under the Act;
- dd) Resource conservation – refer to the reduction of the amount of solid waste that are generated or the reduction of overall resource consumption, and utilization of recovered resources;
- ee) Resource recovery – refer to the collection, extraction or recovery of recyclable materials from the waste stream for the purpose of recycling, generating energy or producing a product suitable for beneficial use: Provided, That, such resource recovery facilities exclude incineration;
- ff) Re-use – refer to the process of recovering materials intended for the same or different purpose without the alteration of physical and chemical characteristics;
- gg) Sanitary Landfill – refer to a waste disposal site designed, constructed, operated and maintained in a manner that exerts engineering control over significant potential environmental impacts arising from the development and operation of the facility;
- hh) Schedule of Compliance – refer to an enforceable sequence of actions or operations to be accomplished within a stipulated time frame leading to compliance with a limitation, prohibition or standard set forth in the Act or any rule or regulation issued pursuant thereto;
- ii) Secretary – refer to the Secretary of the Department of Environment and Natural Resources;

- jj) Segregation – refer to sorting and segregation of different materials found in solid waste in order to promote recycling and re-use of resources and to reduce the volume of waste for collection and disposal;
- kk) Segregation at source – refer to solid waste management practice of separating, at the point of origin, different materials found in solid waste in order to promote recycling and re-use of resources and to reduce the volume of waste for collection and disposal;
- ll) Solid waste – refer to all discarded household, commercial waste, non-hazardous institutional and industrial waste, street sweepings, construction debris, agricultural waste, and other non-hazardous/non-toxic solid waste. Unless specifically noted otherwise, the term "solid waste" as used in this Act shall not include:
 - 1) Waste identified or listed as hazardous waste of a solid, liquid, contained gaseous or semi-solid form which may cause or contribute to an increase in mortality or in serious or incapacitating reversible illness, or acute/chronic effect on the health of persons and other organisms;
 - 2) Infectious waste from hospitals such as equipment, instruments, utensils, and fomites of a disposable nature from patients who are suspected to have or have been diagnosed as having communicable diseases and must therefore be isolated as required by public health agencies, laboratory wastes such as pathological specimens (i.e. all tissues, specimens of blood elements, excreta, and secretions obtained from patients or laboratory animals) and disposable fomites that may harbor or transmit pathogenic organisms, and surgical operating room pathologic specimens and disposable fomites attendants thereto, and similar disposable materials from outpatient areas and emergency rooms; and
 - 3) Waste resulting from mining activities, including contaminated soil and debris.
- mm) Solid waste management – refer to the discipline associated with the control of generation, storage, collection, transfer and transport, processing, and disposal of solid wastes in a manner that is in accord with the best principles of public health, economics, engineering, conservation, aesthetics, and other environmental considerations, and that is also responsive to public attitudes;
- nn) Solid waste management facility – refer to refer to any resource recovery system or component thereof; any system, program, or facility for resource conservation; any facility for the collection, source separation, storage, transportation, transfer, processing, treatment, or disposal of solid waste;
- oo) Source reduction – refer to the reduction of solid waste before it enters the solid waste stream by methods such as product design, materials substitution, materials re-use and packaging restrictions;
- pp) Source separation –refer to the sorting of solid waste into some or all of its component parts at the point of generation;

- qq) Special wastes – 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;
- rr) Storage – refer to the interim containment of solid waste after generation and prior to collection for ultimate recovery or disposal;
- ss) Transfer stations – refer to those facilities utilized to receive solid wastes, temporarily store, separate, convert, or otherwise process the materials in the solid wastes, or to transfer the solid wastes directly from smaller to larger vehicles for transport. This term does not include any of the following:
- 1) a facility whose principal function is to receive, store, separate, convert or otherwise process in accordance with national minimum standards, manure;
 - (2) a facility, whose principal function is to receive, store, convert, or otherwise process wastes which have already been separated for re-use and are intended for disposals, and
 - (3) the operations premises of a duly licensed solid waste handling operator who is receives, stores, transfers, or otherwise processes wastes as an activity incidental to the conduct of a refuse collection and disposal business.
- tt) Waste diversion – refer to activities which reduce or eliminate the amount of solid waste from waste disposal facilities;
- uu) White goods – refer to large worn-out or broken household, commercial, and industrial appliances such as stoves, refrigerators, dishwashers, and clothes washers and dryers collected separately. White goods are usually dismantled for the recovery of specific materials (e.g., copper, aluminum, etc.);
- vv) Yard waste – refer to wood, small or chipped branches, leaves, grass clippings, garden debris, vegetable residue that is recognized as part of a plant or vegetable and other materials identified by the Commission.

CHAPTER II INSTITUTIONAL MECHANISM

Section 4. Role of LGUs in Solid Waste Management. Pursuant to the relevant provisions of RA 7160, otherwise known as the Local Government Code, the city shall be primarily responsible for the implementation and enforcement of the provisions of this Act within their respective jurisdictions.

Segregation and collection of solid waste shall be conducted at the barangay level specifically for biodegradable, compostable and reusable wastes: Provided, That the collection of non-recyclable materials and special wastes shall be the responsibility of the municipality or city.

Section 5. City Solid Waste Management Board. The City Waste Management Board shall prepare, submit and implement a plan for the safe and sanitary management of solid waste generated in areas under its geographical and political coverage.

The city SWM Board shall be composed of the city mayor as head or chairman, with the following:

Members:

City Councilor, Committee on Environment or Health
Association of Barangay Councils (ABC) President
Sangguniang Kabataan Federation Chairman
City Planning and Development Officer
City Environment and Natural Resources Officer
General Services Officer
City Health Officer
DILG Officer
City Agriculturist
City Disaster Risk Reduction Management Action Officer
Chief of Police
Schools Division Superintendent/Private Schools
NGO promoting recycling and protection of the environment
Recycling Industry representative
Manufacturing or packaging industry representative
Private Sector Representative

Representatives from the NGOs, recycling and manufacturing or packaging industries shall be selected through a process designed by themselves and shall be endorsed by the government agency representatives of the SWM Board.

Section 6. Functions of City SWM Board. The City SWM Board shall have the following duties and responsibilities:

1. Develop the City Solid Waste Management Plan that shall ensure the long-term management of solid waste, as well as integrate the various solid waste management plans and strategies of the barangays in its area jurisdiction. In the development of the SWM Plan, it shall conduct consultation with the various sectors of the community;
2. Adopt measures to promote and ensure the viability and effective implementation of solid waste management programs in its component barangays;
3. Monitor the implementation of the City SWM Plan through its various political subdivisions and in cooperation with the private sector and the NGOs;
4. Adopt specific revenue-generating measures to promote the viability of its SWM Plan;
5. Convene regular meetings for purposes of planning and coordinating the implementation of the SWM Plans of the respective component barangays;
6. Oversee the implementation of the City SWM Plan;
7. Review every two (2) years or as need arises the City SWM Plan for purposes of ensuring its sustainability, viability, effectiveness and relevance in relation to local and international developments in the field of solid waste management;
8. Develop the specific mechanisms and guidelines for the implementation of the City SWM Plan;
9. Recommend to appropriate local government authorities specific measures or proposals for franchise or build-operate-transfer agreements with duly recognized institutions, pursuant to RA 6957, to provide either exclusive or non-exclusive authority for the collection, transfer, storage, processing, recycling or disposal of municipal solid waste. The proposals shall take into consideration appropriate government rules and regulations on contracts, franchises and build-operate-transfer agreements;
10. Provide the necessary logistical and operational support to its component cities and municipalities in consonance with subsection (f) of Section 17 of the Local Government Code;

11. Recommend measures and safeguards against pollution and for the preservation of the natural ecosystem; and
12. Coordinate the efforts of its component barangays in the implementation of the City SWM Plan.

Section 7. Barangay Solid Waste Management Committee. The Barangay SWM Committee shall be composed of the barangay captain as chair with the following as members:

One (1) Kagawad
SK Chair
President of Home Owners Association
Public/Private School Principals or representative
Parents and Teachers Association president or representative
Religious organization representative
Business sector representative
Environmental NGO representative
President of Market Vendor's Association
Representative from Junkshop Owners' Association or the likes

Section 8. Functions of Barangay SWM Committee. The Barangay Solid Waste Management Committee shall have the following duties and responsibilities:

1. Formulate Solid Waste Management Program consistent with the City Solid Waste Management Plan;
2. Segregate and collect biodegradable, compostable, reusable wastes;
3. Establish a Materials Recovery Facility;
4. Allocate funds; look for sources of funds;
5. Organize core coordinators;
6. Submit SWM monthly reports.

Section 9. Establishment of Multi-purpose Environmental Cooperatives or Associations. Multi-purpose cooperatives and associations that shall undertake activities to promote the implementation and/or directly undertake projects in compliance with the provision of Ordinance shall be encouraged and promoted.

CHAPTER III COMPREHENSIVE SOLID WASTE MANAGEMENT

Article I General Provisions

Section 10. City Solid Waste Management Plan. The city, through its local solid waste management board, shall prepare its 10-year solid waste management plans consistent with the National solid Waste Management Framework (Appendix A and B): Provided, That the waste management plan shall be for the re-use, recycling and composting of wastes generated: Provided, further, That the solid waste management plan of the city shall ensure the efficient management of solid waste generated within its jurisdiction. The plan shall place primary emphasis on implementation of all feasible re-use, recycling, and composting programs while

identifying the amount of landfill and transformation capacity that will be needed for solid waste which cannot be re-used, recycled or composted. The plan shall contain all the components provided in Section 17 of Republic Act 9003 and a time table for the implementation of the solid waste management program in accordance with the National Framework and pursuant to the provision of this ordinance: Provided, finally, that it shall be reviewed and updated every year by the city solid waste management board.

The City Solid Waste Management Plans shall be subjected to the approval of the Commission and shall be consistent with the national framework and in accordance with the provisions of this Act and the policies set by the Commission.

Section 11.Owner and Operator. Responsibility for compliance with the standards in this Act shall rest with the owner and/or operator. The operator is considered to have primary responsibility for compliance; however, this does not relieve the owner of the duty to take all the reasonable steps to assure compliance with these standards and any assigned conditions. When the title to a disposal is transferred to another person, the new owner shall be notified by the previous owner of the existence of these standards and of the conditions assigned to assure compliance.

Section 12.Waste Characterization. The city shall conduct waste characterization every three (3) years in accordance to the guidelines/procedures described in Appendix D.

Article II Segregation of Wastes

Section 13. Mandatory Segregation of Solid Wastes. The city shall evaluate alternative roles for the public and private sectors in providing collection services, type of collection system, or combination of systems, that best meet their needs: Provided, that segregation of wastes shall primarily be conducted at the source, to include household, institutional, industrial, commercial and agricultural sources: Provided, further, that wastes shall be segregated into the categories provided in Section 14 of this Act.

For premises containing six (6) or more residential units, the owner or person in charge of such premises shall:

- a) Provide for the residents a designated area and containers in which to accumulate source separated recyclable materials to be collected by the collector or private center; and
- b) Notify the occupants of such buildings of the requirements of this ordinance and the regulations promulgated pursuant thereto.

Section 14. Requirements for the Segregation and Storage of Solid Waste. The following shall be the standards and requirements for segregation and storage of solid waste pending collection:

Residential/Household

- a) There shall be a separate container for each type of waste from all sources to include but not limited to cans, sacks, bags, bins, etc. that will facilitate sanitary, efficient handling, storage, collection, transport or disposal at the least cost; garden waste in sacks, cans and bags; Recyclable materials in either sacks, bags or boxes;
- b) Food wastes shall be placed in covered pails or cans for temporary storage or directly processed by the household into compost or soil conditioner thru appropriate method using clay pots, tower tires, bottomless composters, plastic bag, pits, bins or baskets;

- c) Recyclable materials shall be properly cleaned prior to storing and collection by the barangay eco aides. The residents may choose to retain the recyclable/reusable segregated waste or may allow the barangay eco aides to collect recyclable materials, provided the same shall be properly segregated from the source;
- d) Residual waste shall likewise be stored separately in either sacks, plastic bags or any container that are readily available and will facilitate easy handling and storage;
- a) Household hazardous wastes shall be stored safely in corrosion-resistant, strong enough to withstand breakage, good, durable and duly covered containers, or stored, collected, transported and disposed of in accordance with applicable laws, guidelines, rule and regulations, orders of DENR;
- e) Public thoroughfares and grounds in front or in the vicinity of residential houses shall be kept clean and tidy by the owner/lessee of the house/building at all times;
- f) Trees, shrubs and other vegetation within the vicinity of residences shall be regularly be cared for and maintained to minimize generated waste/yard waste and unpleasant site;
- g) Provided, That in the case of bulky waste, it will suffice that the same be collected and placed in a separate and designated area; and
- h) The solid waste container depending on its use shall be properly marked or identified for on-site collection as "compostable," "non-recyclable," "recyclable" or special waste, or any other classification as may be determined by the Commission.
- i) For premises containing six (6) or more residential units, the city shall promulgate regulations requiring the owner or person-in-charge of such premises to:
 - 1. Provide for the residents a designated area and containers in which to accumulate source separated recyclable materials to be collected by the city or private collector; and
 - 2. Notify the occupants of such buildings of the requirements of this Act and the regulations promulgated pursuant thereto.

Business and Commercial Establishment

- a) The owner or head of the business and commercial establishment shall provide garbage containers for their source separated waste to be collected by the barangay or private collector and placed in front of the establishment accessible to the eco-waste managers. The establishment shall secure the containers after the collection;
- b) The owner or head of the business and commercial establishment shall notify all workers, employees and entities working in the premises of the requirements of segregation at source;
- c) No scavenging or unauthorized collection in designated segregation containers or areas shall be allowed.
- d) The lobby and/or sidewalks/immediate grounds fronting the business and commercial establishment, stalls, open spaces of markets shall be maintained clean and presentable by the owner/operator/lessee of the establishments (shops, stalls, stores, restaurants, eateries, carinderias, fast food, barber shops, beauty parlors/salon, rice mill, gas station, hotels, motels, pension house, lodging house, tailoring services, pawnshop, telecommunications, printing press, quarry/mining sites, clinics, micro-finance, booking office, recreation and entertainment facilities like theaters, billiard halls, folk houses, beer gardens, discos, cocktail lounges, dancing halls, cabarets, bistro, etc.);
- e) Hazardous wastes shall be stored safely in corrosion-resistant, strong enough to withstand breakage, good, durable and duly covered containers, or stored, collected, transported and disposed of in accordance with applicable laws, guidelines, rule and regulations, orders of DENR; and
- f) Peddlers shall segregate wastes and have their own garbage containers in their peddling cart and shall maintain cleanliness within the immediate vicinity of the area where they temporarily conduct their businesses.

Agricultural Areas/Livestock/Poultry Farms

- a) Similar agricultural wastes (rice straw, corncobs, leaves, animal manure and other crop residues) shall be stockpiled/stored by the concerned farmer and have it composted the natural process or thru appropriate composting technology hasten composition process.
- b) No open burning of waste is allowed; and
- c) Farmers or farm owners may opt to allow the barangay or city to collect agricultural wastes for composting. However, this does not grant the farmers/farm owners to force the city to collect agricultural wastes.

Institutional and Industrial

- a) The head or owner of the institutional/industrial firm shall ensure the proper and hygienic storage of generated and segregated waste in containers which shall be situated along collection routes.
- b) The head or owner of institutional/industrial firm shall ensure the cleanliness and orderliness of its facilities, yards and fronting sidewalks and streets.
- c) Hazardous wastes shall be stored safely in corrosion-resistant, strong enough to with stand breakage, good, durable and duly covered containers, or stored, collected, transported and disposed of in accordance with applicable laws, guidelines, rule and regulations, orders of DENR

Other Sources of Waste

- a) Public Utility Vehicles (Tricycle/pedicabs, PUVs)
 1. All tricycles, pedicabs and other public utility vehicles are required to have garbage container inside their vehicle. This covers also all PUVs passing along the city;
 2. Only wrappers of candies, junk foods, chocolates, cigarette butts, sando bags, ice crumbles and similar wastes are required to be placed in the garbage containers in tricycle, pedicabs and other PUVs;
 3. Drivers are required to inform and educate their passengers to place their garbage in the containers inside the vehicle;
 4. The driver should report any violation of the provision of this section or be held responsible for the violation committed by his passengers.
- b) Hospitals, Medical and Dental Clinics, Diagnostic Centers, Laboratories, Lying-in, Pharmacies, Blood Banks, Mortuaries and Funeral Parlors
 1. Facilities should provide segregated containers for their Healthcare General Waste (HCGW); Healthcare General Wastes are mostly paper, plastic packaging, food preparation, etc. that have not been in contact with patients; and
 2. Healthcare Waste (HCW) that includes sharp, non-sharp, blood, body parts, chemicals, pharmaceuticals, medical devices and radioactive materials used in the render of medical or dental services should not, in any circumstances be included and/or mix in the Healthcare General Waste.
- c) Gasoline Stations, Motorcycle and Car Service Centers
 1. Gasoline stations and automobile service stations located within the barangay shall install oil separation facility for storage of used oil and grease into sealed receptacles. All these are mandatory preconditions before the issuance of Barangay Clearance and/or resolution.
 2. Gasoline station shall ensure that their underground storage tanks are always in good condition by undertaking periodic maintenance and monitoring of effluents.
- d) Restaurants, Eateries, Catering Services and Fast food Chains
 1. All biodegradable/compostable waste generated in the preparation and operation of food services should provide for proper management of biodegradable waste;

2. Each establishment should exercise all possible options that biodegradable waste generated be utilized as food for animals or be processed as compost; and
3. Supporting documents like pictures of composting process, agreement with animal raisers must be presented prior to issuance of Barangay Clearance.

Article III Collection and Transport of Wastes

Section 15. Requirements for the Collection of Solid Waste. The following shall be the minimum standards and requirements for the collection, transport and handling of solid waste:

- a) All collectors and other personnel directly dealing with collection of solid waste shall be equipped with personal protective equipment and paraphernalia such as, but not limited to gloves, masks and safety boots, to protect them from the hazards of handling solid wastes.
- b) The City or Municipal Health Officer shall provide necessary training to the collectors and personnel to ensure that the solid wastes are handled properly in accordance with the guidelines pursuant to the Act. The Commission through the National Ecology Center, in coordination with the DOH shall develop training manuals.
- c) Collection of solid waste shall be done in a manner that prevents damage to the container and spillage or scattering of solid waste within the collection vicinity.
- d) It shall be responsibility of the barangay to ensure 100% collection of all generated and segregated wastes from all sources.
- e) The city shall collect segregated wastes from the barangay MRF/drop off center. Unsegregated wastes shall not be collected and violators shall be penalized accordingly.
- f) The city and barangay shall formulate schedule of collection of segregated wastes from the MRF and sources, respectively and shall be posted in visible areas.

Section 16. Authority to Collect Solid Waste Management Fees. The city may impose fees in amounts sufficient to pay the costs of preparing, adopting and implementing a solid waste management plan prepared pursuant to this Act. The fees shall be based on the following minimum factors:

- a) Types of solid waste to include special waste;
- b) Amount/volume of waste;
- c) Distance of the transfer station to the waste management facility;
- d) Capacity or type of constituency;
- e) Cost of construction;
- f) Cost of management; and
- g) Type of technology.

Section 17. Collection of Fees. The fees may be collected corresponding to the following levels:

- a) **Barangay.** The barangay shall impose fees for collection and segregation of biodegradable, compostable and reusable wastes from households, commerce, other source of domestic wastes, and for the use of barangay MRFs. The computation of fees shall be established by the respective SWM committees. The manner of collection of the fees shall be dependent on the style of administration of respective Barangay Councils.

- b) **City.** The city councils shall impose fees on the barangay MRFs for the collection and transport of non-recyclable and special wastes and for the disposal of these into the sanitary landfill. The level and procedure for exacting fees shall be defined by the Local SWM Cluster Board and supported by ordinance, however, payments shall be consistent with the accounting system of government.

Section 18. Requirements for the Transport of Solid Waste. The use of separate collection schedules and/or separate trucks or haulers shall be required for specific types of wastes. Otherwise, vehicles used for the collection and transport of solid wastes shall have the appropriate compartments to facilitate efficient storing of sorted wastes while in transit.

- a) The equipment used in the collection and transportation of solid waste (or materials which have been separated for the purpose of recycling) shall be fabricated, operated and maintained in such a manner as to minimize health and safety hazards to solid waste management personnel and the public.
- b) Equipment shall be maintained in good condition and kept clean to prevent the harboring of vectors and the creation of nuisances.
- c) The use of separate collection schedules and/or separate trucks or haulers shall be required for specific types of wastes. Otherwise, vehicles used for the collection and transport of solid wastes shall have the appropriate compartments to facilitate efficient storing of sorted wastes while in transit. The waste compartment shall have a cover to ensure the containment of solid wastes while in transit.
- d) Vehicles shall be designed to consider road size, condition and capacity to ensure the safe and efficient collection and transport of solid wastes.
- e) For the purpose of identification, vehicles shall bear the body number, the name, and telephone number of the contractor/agency collecting solid waste.

Section 19. Guidelines for Transfer Stations. Transfer stations shall be designed and operated for efficient waste handling capacity and in compliance with environmental standards and guidelines set pursuant to the IRR of this Act, and other regulations. In addition, the design and operation of transfer stations shall conform to the following standards and criteria:

- a) Leachate and Drainage Control – Facilities shall be designed such that waste shall not come into contact with run-off and to prevent the generation of leachate.
- b) Provisions for vector, odor, litter and dust control shall be included.
- c) The siting of the transfer station shall consider the land use plan, proximity of collection area, and accessibility of haul routes to disposal facility. The design shall give primary consideration to size and space sufficiency in order to accommodate the storage of waste, and vehicles for the loading and unloading of wastes.
- d) The following records shall be kept and maintained, such records shall be submitted to the Department upon request:
 - 1. Record of daily weights or volumes of waste received and transferred accurate to within ten percent (10%) and adequate for overall planning purposes and tracking of waste volumes;
 - 2. Daily logbook or file of the following information shall be maintained: fires, special occurrences, unauthorized loads, injury and property damage
- e) Waste shall be removed from the transfer station within twenty-four (24) hours of its receipt.

Article IV Recycling Program

Section 20. Inventory of Existing Markets for Recyclable Materials. The City, in coordination with DTI and other concerned agencies, shall request for an inventory or list of existing markets, including a list of prospective buyers of recycled products, and list of procedures, standards and strategies to market recyclable materials and develop local markets and stimulate the demand for the production of products containing post-consumer and recovered materials.

Section 21. Requirement for Eco-Labeling. The City shall coordinate with DTI responsible for the formulation and implementation of a coding system for packaging materials and products to facilitate waste recycling and re-use.

The coding shall be initially be based on ISO 14020, "Environmental Labeling – Practitioner Programs – Guiding Principles, Practices and Certification Procedures of Multiple Criteria (type 1) Programs, with criteria to be determined on the basis of life cycle assessment of the product group. The criteria shall be regularly reviewed to ensure their appropriateness and currency in light of scientific and technical progress, and of the experience gained in this area, and to ensure consistency with relevant, internationally recognized standards. The DTI shall clarify the principles for establishing the effectivity level of the eco-label, in order to facilitate consistent and effective implementation of the scheme.

The eco-label shall include simple, accurate, non-deceptive and scientifically based information on the key environmental aspects which are considered in the award of the label in order to enable consumers to make informed choices. Provided, DTI shall make relevant information about the attributes of the products available to purchasers, and that information on the process and methodologies used in the eco-labeling process, shall be available to all interested parties.

Section 22. Reclamation Programs and Buy-back Centers for Recyclables and Toxics. The city shall request the assistance of the National Ecology Center in establishing and implementing deposit or reclamation programs in coordination with manufacturers, recyclers and generators to provide separate collection systems or convenient drop-off locations for recyclable materials and particularly for separated toxic components of the waste stream like dry cell batteries and tires to ensure that they are not incinerated or disposed of in landfill. Upon effectivity of this Act, toxic materials present in the waste stream should be separated at source, collected separately, and further screened and sent to appropriate hazardous waste treatment and disposal plants, consistent with the provisions of R.A. No. 6969.

Section 23. Non-Environmentally Acceptable Products. The city shall request from the Commission a list of non-environmentally acceptable products as defined in this Act that shall be prohibited. The non-environmentally acceptable products shall not be prohibited unless the Commission first finds that there are alternatives available which are available to consumers at no more than ten percent (10%) greater cost than the disposable product. Notwithstanding any other provision to the contrary, this section shall not apply to:

- a) Packaging used at hospitals, nursing homes or other medical facilities; and
- b) Any packaging which is not environmentally acceptable, but for which there is no commercially available alternative as determined by the Commission.

The Commission is responsible for the annual review and update the list of prohibited nonenvironmentally acceptable products.

Section 24. Prohibition on the Use of Non-Environmentally Acceptable Packaging. No person owning, operating or conducting a commercial establishment in the country shall sell or convey at retail or possess with the intent to sell or convey at retail any products that are placed, wrapped or packaged in on packaging which is not environmentally acceptable packaging: *Provided*, That the Commission shall determine a phaseout period after proper consultation and hearing with the stakeholders or with thesectors concerned. The presence in the commercial establishment of nonenvironmentally acceptable packing shall constitute a rebuttable presumption of intent to sell or convey the same at retail to customers.

Any person who is a manufacturer, broker or warehouse operator engaging in the distribution or transportation of commercial products within the city shall file are port with the city within one (1) year from the effectivity of this Act, and annually thereafter, a listing of any products in packaging which is not environmentally acceptable. The Commission shall prescribe the form of such report in its regulations.

A violation of this Section shall be sufficient grounds for the revocation, suspension, denial or non-renewal of any license for the establishment in which the violation occurs.

Section 25. Recycling Market Development. - The Commission together with the National Ecology Center, the DTI and the Department of Finance shall establish procedures, standards and strategies to market recyclable materials and develop the local market for recycled goods, including but not limited to:

- (a) measures providing economic incentives and assistance including loans and grants for the establishment of privately-owned facilities to manufacture finished products from post-consumer materials;
- (b) guarantees by the national and local governments to purchase a percentage of the output of the facility; and
- (c) maintaining a list of prospective buyers, establishing contact with prospective buyers and reviewing and making any necessary changes in collecting or processing the materials to improve their marketability.

In order to encourage establishment of new facilities to produce goods from post consumer and recovered materials generated within local government units, and to conserve energy by reducing materials transportation, whenever appropriate, each city may arrange for long-term contracts to purchase a substantial share of the product output of a proposed facility which will be based in the jurisdiction of city if such facility will manufacture such finished products from post consumer and recovered materials.

Article V Materials Recovery Facilities and Composting

Section 26. Establishment of LGU Materials Recovery Facility. There shall be established a Materials Recovery Facility (MRF) in every barangay or cluster of barangays. The facility shall be established in a barangay-owned or leased land or any suitable open space to be determined by the barangay through its Sanggunian. For this purpose, the barangay or cluster of barangays shall allocate a certain parcel of land for the MRF. The determination of site and actual establishment of the facility shall likewise be subject to the guidelines and criteria set pursuant to this Act. The MRF shall receive mixed waste for final sorting, segregation, composting, and recycling. The resulting residual wastes shall be transferred to a long-term storage or disposal facility or sanitary landfill.

Section 27. Guidelines for Establishment of Materials Recovery Facility. Materials recovery facilities shall be designed to receive, sort, process, and store compostable and recyclable material efficiently and in an environmentally sound manner. The facility shall address the following considerations:

- a) The building and/or land layout and equipment must be designed to accommodate efficient and safe materials processing, movement, and storage; and
- b) The building must be designed to allow efficient and safe external access and to accommodate internal flow.

Section 28. Operations of a Materials Recovery Facility. Barangays shall be responsible for the collection, segregation, recycling of biodegradable, recyclable, compostable and reusable wastes. MRFs will be established in every barangay or cluster of barangays.

The facility shall be established in a barangay-owned or leased land or any suitable open space to be determined by the barangay through its Sanggunian. For this purpose, the barangay or cluster of barangays shall allocate a certain parcel of land for the MRF. The determination of site and actual establishment of the facility shall likewise be subject to the guidelines and standards set forth by the Act and its IRR.

The MRF shall receive biodegradable waste for composting and mixed non-biodegradable wastes for final segregation, re-use and recycling. Provided, that each type of mixed waste is collected from the source and transported to the MRF in separate containers.

The resulting residual wastes shall then be transferred to a long-term storage or disposal facility or sanitary landfill. Materials recovery facilities shall be designed to receive, sort, process and store compostable and recyclable material efficiently and in an environmentally sound manner. The facility shall address the following considerations:

- a) The building and/or land layout and equipment must be designed to accommodate efficient and safe materials processing, movement and storage;
- b) The building must be designed to allow efficient and safe external access and to accommodate internal flow;
- c) If the MRF includes a composting operation, it shall comply with the provisions of Section 23 and 24 of this Act;
- d) The following records shall be kept and maintained, such records shall be submitted to the Department upon request:
 1. Record of daily weights or volumes of waste received, processed and removed from site accurate to within ten percent (10%) and adequate for overall planning purposes and tracking of success of waste diversion goals; and
 2. Daily logbook or file of the following information shall be maintained: fire, special occurrences, unauthorized loads, injury and property damage.

Section 29. Guidelines for Compost Quality. Organic fertilizers derived from compost and intended to be distributed commercially shall conform with the standards for organic fertilizers set by the Fertilizer and Pesticide Authority of the Department of Agriculture. The DA shall assist the compost producers to ensure that the compost products conform to such standards. Compost products intended for commercial or non-commercial distribution shall be free from hazardous/toxic constituent above permissible levels, and shall be tested for such constituents using the Toxicity Characteristic Leaching Procedure (TCLP) test method developed by the United States Environmental Protection Agency (USEPA).

Section 30. Inventory of Markets for Composts. Within six (6) months after the effectivity of this Act, the DA shall publish an inventory of existing markets and demands for composts. Said inventory shall thereafter be updated and published annually: Provided that composting of agricultural wastes, and other compostable materials, including but not limited to garden wastes, shall be encouraged.

Section 31. Minimum Requisites for Operating Composting Facilities. Composting facilities shall conform to the following siting, design and operating standards and criteria:

- a) The Facility shall not be sited in areas subject to frequent flooding, unless engineering controls are provided in the design to prevent inundation of the facility.
- b) Leachate and Drainage Control
 1. Facilities shall be designed such that compost piles, windrows, residues and processed material will not come in contact with surface storm run-off.
 2. Where excess leachate storage is provided, discharge of leachate into any body of water is prohibited unless such discharge meets the limits prescribed by the DENR standards for effluents. Where leachate needs to be stored, it shall comply with the provisions of Section 1(k) of Rule XIV of this IRR. Provisions shall be made such that leachate is re-circulated back into compost piles or windrows as much as possible.
- c) Provisions for vector, odor, litter and dust control shall be included
- d) Records keeping shall be maintained at all times in accordance with Section 2(b) of Rule XIV of this IRR.
- e) Residues shall be managed as solid waste and shall be disposed of as such.
- f) Temperatures of compost piles, curing piles and processed composts shall be maintained in safe levels to prevent spontaneous combustion.
- g) Aerobic conditions shall be maintained to prevent creation of dangerous gases such as methane.

Provided that, individual household backyard composting shall be exempted from the provisions of this Section. All technical reports, technical documents, plans and specifications pertaining to the engineering of the facility and other waste management facilities shall be certified based on EMB requirements.

Article VI Waste Management Facilities

Section 32. Inventory of Waste Disposal Facilities. Within six (6) months from the effectivity of this Ordinance, the city shall prepare a list or inventory of all solid waste disposal facilities within the City of Ligao.

Section 33. Prohibition Against the Use of Open Dumps for Solid Waste. No open dumps shall be established and operated, nor any practice or disposal of solid waste by any person including the city, which constitutes the use of open dumps for solid waste, be allowed after the effectivity of this Act: *Provided*, That within three (3) years after the effectivity of this Ordinance, the city shall convert its open dumps into controlled dumps, in accordance with the guidelines set in Section 34 of this Act: *Provided, further*, That no controlled dumps shall be allowed five (5) years following effectivity of this Ordinance.

Section 34. Permit for Solid Waste Management Facility Construction and Expansion. No person shall commence operation, including site preparation and construction of a new solid waste management facility or the expansion of an existing facility until said person obtains an Environmental Compliance Certificate (ECC) from the Department pursuant to P.D. 1586 and other permits and clearances from concerned agencies.

Section 35. Guidelines for Controlled Dumps. -- The following shall be the minimum considerations for the establishment of controlled dumps:

- (a) **Regular inert cover.** Daily cover consisting of inert materials or soil of at least 6 inches in thickness shall be applied at the end of the working day; where there is lack of onsite soil material, other alternative materials may be used subject to the prior written approval of the enforcement authority and the Department;
- (b) **Surface water and peripheral site drainage control.** Drainage and run off control shall be designed and managed such that storm water does not come in contact with waste and that discharge of sediments into the receiving body of water is minimized. Appropriate erosion protection shall be installed at storm discharge outfalls;
- (c) **Provision for aerobic and anaerobic decomposition** shall be issued to control odor;
- (d) **Restriction of waste deposition to small working areas.** Working areas shall be minimized and kept at no more than a ration of 1.5 square meter (sqm) or less per ton/day (tpd) of waste received on a daily basis, e.g. 30 sqm working area for a 20 tpd facility;
- (e) **Fence, including provision for litter control.** Security fencing shall be provided to prevent illegal entries, trespassing and large animal entries. Large animals shall include but not limited to adult domesticated or feral animals such as dogs, cats, cattle, pigs, carabao and horses. Provisions for litter control including the use of litter fences and daily picking of litter shall be included;
- (f) **Basic record-keeping.** Basic record keeping including volume of waste received daily, special occurrences such as fires, accidents, spills, unauthorized loads (maintain record of unauthorized and rejected loads, namen and address of hauler and generator of such unauthorized waste), and daily waste inspection logs;
- (g) **Provision of maintained access road;**
- (h) **Controlled waste picking and trading.** If allowed by owner/operator, in order to facilitate daily covering and compliance to Subsection a through e above;
- (i) **Post-closure site cover and vegetation.** Provision of at least 0.60 m final cover at closure, and post-closure maintenance of cover drainage and vegetation; Post-closure maintenance shall be for a period of ten (10) years;
- (j) **Hydrogeological siting.** Site shall not be located in flood plains and areas subject to periodic flooding and it shall be hydro-geologically suitable, i.e. adequate separation or clearance between waste and underlying groundwater and any surface body of water shall be provided. Engineering controls shall be provided otherwise; and
- (k) Open dumpsites that do not comply with siting requirements of this Section shall be closed immediately. A replacement facility shall be, at a minimum, a controlled dump and shall meet the requirements of Article VI and other applicable provisions of the IRR.

Section 36. Criteria for Siting a Sanitary Landfill. -- The following shall be the minimum criteria for the siting and designing of sanitary landfills:

- a) The site selected must be consistent with the overall land use plan of the city;
- b) The site must be accessible from major roadways or thoroughfares, provided, that if it is not accessible, the project design shall include means of access;
- c) The site should have an adequate quantity of earth cover material that is easily handled and compacted;
- d) Locations of public water supply intakes located within one (1) kilometer from the facility, including active public drinking water supply well, shall be known on a facility map;
- e) The facility shall not be constructed within 75 meters from a Holocene fault or known recent active fault;
- f) If significant archaeological and cultural resources are present at the site, such resources shall be protected and preserved;
- g) If the site is a habitat of listed endangered species, mitigation measures for protection of the species are required by applicable laws shall be included in the proposal;

- h) The site must be chosen with regard for the sensitivities of the community's residents. The SP shall adopt a resolution confirming compliance with the pertinent siting, design criteria and standards. The resolution shall be deemed as having fully satisfied the public sensitivity requirement of this section;
- i) Except as provided in Section 1 (m) of Section 29, for landfills located in sensitive resources areas, landfills shall be provided with a base liner system consisting of clay and/or geosynthetic membranes (geomembrane). If clay is used, it shall have a minimum thickness of 0.75 m and permeability of 1×10^{-6} cm/sec or less. Geomembranes shall be at least 1.5 mm thick with a permeability of 1×10^{-14} cm/sec or less; Geosynthetic Clay Liners (GCL) shall have a thickness of at least 6.4 mm and a permeability of 1×10^{-9} cm/sec or less. If composite liner is used (clay under geo-membrane), the thickness of the clay liner may be reduced to 0.60 m. The overlying geomembrane shall have the same properties as stated above. In the design of geosynthetic liners, international standards (e.g. Geosynthetic Research Institute, or applicable ASTM standards) shall be used for its design and specifications in terms of properties, manufacturing and construction quality assurance and testing procedures.
- j) Leachate collection and removal system shall be provided and designed such that leachate buildup in the landfill will be minimized. For design purposes, an allowable leachate level of not more than 0.60 m over the linear system shall be maintained. If leachate is discharged to a receiving body of water, the discharge shall meet effluent discharge and water quality criteria prescribed by DENR;
- k) Leachate storage facilities shall be designed with containment systems to prevent leachate from spillage and its migration into underlying groundwater or nearby surface body of water. For leachate impoundment ponds, the design shall include a geomembrane liner system, underlain by a low permeability soil layer of at least 0.30 m thick. The geomembrane liner shall be at least 1.5 mm thick with a permeability of 1×10^{-14} cm/sec or less; Liner specifications, CQA and engineering certification requirements shall be per provisions of Section 1 (l). Adequate free board including allowance for rainfall volume and other safeguards shall be provided to prevent pond overflowing;
- l) The site shall be located in an area where the landfill's operation will not detrimentally affect environmentally sensitive resources such as aquifers, groundwater reservoir or watershed area, by provision of the following special mitigation measures and additional criteria:
 1. The facility shall be a minimum 50 meters away from any perennial stream, lake or river.
 2. The site shall be evaluated for presence of geologic hazards, faults, unstable soils, its foundation stability, and its hydrogeological character. The site shall not be located in a floodplain.
 3. It shall be provided with a composite base liner system consisting of a minimum 1.5 mm thick high density polyethylene liner (HDPE) underlain by a soil liner with a minimum thickness to 0.60 m and maximum permeability of 1×10^{-6} centimeter/second (cm/sec).
 4. A Geosynthetic Clay Liner (GCL) with a minimum thickness of 6.4mm and permeability of 1×10^{-9} cm/sec or less, may be substituted for the soil liner. Likewise, the design of the final cap shall be equivalent to its liner system in terms of permeability. The thickness of the final cover system shall be at least 1.5 m including a minimum 0.60 m thick soil foundation layer, its final cap, a drainage layer, and a vegetative layer of at least 0.30 m thick. If the thickness of the equivalent final cap makes the entire cover system less than 1.5 m thick, the deficiency shall be made up by increasing the thickness of the foundation layer.
 5. Strict liner and final cap construction quality assurance (CQA) and testing shall be performed by a third party experienced in earthwork, clay and geosynthetic liner installation, quality assurance supervision, testing and inspection. The lead CQA person, as a minimum qualification or experience, must have supervised the installation of at

least 100,000 square meters each of clay and geosynthetic liner system; the CQA person or firm shall submit a construction completion report within 60 days of liner or final cap construction completion to the Department, certifying that construction of each liner system was performed and completed in accordance with its plans and specifications. The CQA report shall be certified by a registered Civil or Geotechnical Engineer or other registered Engineer, provided that the certifying Engineer shall have at least designed or supervised the installation of soil and geosynthetic liners of quantities similar to those of the lead CQA person.

- n) The design of the landfill shall be statically stable and shall be able to with stand the effects of a ground acceleration generated by an earthquake of 100-year or more recurrence interval.
- o) A separation of at least two (2.0) meters shall be maintained between the top of the liner system and underlying groundwater.
- p) A temporary impoundment for drainage runoff shall be provided with a detention time sufficient for sediment removal and/or reduction, prior to its discharge.
- q) The site shall be large enough to accommodate the community's waste for a period of five (5) years or more during which people must internalize the value of environmentally sound and sustainable waste disposal.
- r) The site chosen shall facilitate developing a landfill that will satisfy budgetary constraints, including site development, operation for many years, closure and post-closure care and possible remediation costs.
- s) Operating plans shall include provisions for coordinating with recycling and resource recovery projects.
- t) Designation of a separate containment area for household hazardous wastes.
- u) A gas control system shall be provided when the volume of waste in the landfill has reached 0.5 million metric tons. The owner/operator shall consider recovery and conversion of methane gas into usable energy if economically viable. Prior to installation of gas control facilities, perimeter boundary gas monitoring shall be performed in accordance with Section 2(b) of Rule XIV.
- v) Groundwater monitoring wells shall be placed at appropriate locations and depth for taking water samples that are representative of groundwater quality and for predicting groundwater flow.
- w) Cover shall consist of a daily soil cover at least 6 inches in thickness applied at the end of each workday. Alternative Daily Cover (ADC), maybe used provided that the owner/operator can demonstrate to the Department in writing, the equivalency of the propo4ed ADC in controlling infiltration, vector, odor and litter based on technical research or studies. In areas within the landfill that will not be used for at least 180 days, an additional interim soil cover of 6 inches thick shall be placed over the existing daily cover. The final cover shall consist of, from bottom to top, the foundation layer (consisting of 0.60m thick soil layer including interim cover), a final cap with an equivalent permeability as that of its liner system. A drainage layer and a vegetative layer. Installation of final cover shall be completed within six (6) months from the last receipt of waste.
- x) Closure of the landfill shall be completed within one year of cessation of landfill operation.
- y) Post-closure care shall be for a period of fifteen (15) years. DENR shall establish post-closure guidelines and requirements for financial assurance mechanisms within one year.
- z) Small facility exemption from specific standards of this Section. The DENR will establish criteria for exemption within one (1) year from approval of the IRR.
- aa) All technical reports, technical documents, plans and specifications pertaining to the engineering of the facility shall be certified and sealed by a licensed Engineer with relevant experience and expertise.

- bb) The size must be located in an area where the landfill's operation will not detrimentally affect environmentally sensitive resources such as aquifer, groundwater reservoir or watershed area;
- g) The site chosen should facilitate developing a landfill that will satisfy budgetary constraints, including site development, operation for many years, closure, post-closure care and possible remediation costs;
- h) Operating plans must include provisions for coordinating with recycling and resource recovery projects; and
- i) Designation of a separate containment area for household hazardous wastes.

Section 37. Criteria for Establishment of Sanitary Landfill. The following shall be the minimum criteria for the establishment of sanitary landfills:

- a) Liners – a system of clay layers and/or geosynthetic membranes used to contain leachate and reduce or prevent contaminant flow to ground water;
- b) Leachate collection and treatment system – Installation of pipes at the low areas of the liner to collect leachate for storage and eventual treatment and discharge;
- c) Gas control recovery system – a series of vertical wells or horizontal trenches containing permeable materials and perforated piping placed in the landfill to collect gas for treatment or productive use as an energy source;
- d) Ground water monitoring well system – wells placed at an appropriate location and depth for taking water samples that are representative of groundwater quality;
- e) Cover – two (2) forms of cover consisting of soil and geosynthetic materials to protect the waste from long-term contact with the environment:
 - 1. a daily cover place over the waste at the close of each day's operations, and;
 - 2. a final cover, or cap, which is the material placed over the completed landfill to control infiltration of water, gas emission to the atmosphere, and erosion.
- f) Closure procedure – with the objectives of establishing low maintenance cover systems and final cover that minimizes the infiltration of precipitation into the waste. Installation of the final cover must be completed within six (6) months of the least receipt of wastes; and
- g) Post-closure care procedure – During this period, the landfill owner shall be responsible for providing for the general up keep of the landfill, maintaining all of the landfill's environmental protection features, operating monitoring equipment, remediating groundwater should it become contaminated and controlling landfill gas migration or emission.

Section 38. Operating Criteria for Sanitary Landfills. In the operation of a sanitary landfill, each site operator shall maintain the following minimum operating requirements:

- a) Disposal site records of, but not limited to:
 - 1) Records of weights or volumes accepted in a form and manner approved by the Department. Such records shall be submitted to the Department upon request, accurate to within ten percent (10 %) and adequate for overall planning purposes and forecasting the rate of site filling;
 - 2) Records of excavations which may affect the safe and proper operation of the site or cause damage to adjoining properties;
 - 3) Daily log book or file of the following information: fires, landslides, earthquake damage, unusual and sudden settlement, injury and property damage, accidents, explosions, receipt or rejection of unpermitted wastes, flooding, and other unusual occurrences;
 - 4) Record of personnel training; and
 - 5) copy of written notification to the Department, local health agency, and fire authority of names, addresses and telephone numbers of the operator or responsible party of the site:

- b) Water quality monitoring of surface and ground waters and effluent, and gasemissionsshall be performed in frequencies prescribed by the Department on a project by project basis; Parameters for ground water, effluent and surface waters shall be as prescribed by the Department in the facility's permit. For landfills sited under Section 1m of Rule XIV of this IRR, groundwater, perimeter gas monitoring and receiving surface water monitoring shall be on a quarterly basis and treated leachate effluent discharge shall be monitored for pH, 5-day Biochemical Oxygen Demand (BOD5) and Total Suspended Solids (TSS) concentrations on a weekly basis or when discharged if discharge is not on a daily basis, and shall not exceed limits prescribed by the Department according to the classification of the receiving body of water. Other parameters to be monitored and their respective frequencies shall be in accordance with the facility's permit. Owners/Operators of Section 1m of Rule XIV facilities shall submit monitoring and inspection reports on a quarterly basis to the designated enforcement authority with a copy furnished to the Department and other relevant agencies. The report shall be certified as to its correctness and accuracy by the owner/operator or his designated (in writing) representative. For other facilities, reporting frequencies shall be specified by the Department but in no case will it be more frequent than quarterly basis unless the facility is in a state of verification/assessment monitoring.
- c) Groundwater Sampling Protocol – The DENR shall establish requirements and guidelines within one year from approval of this IRR.
- d) Background Groundwater quality Monitoring Statistical Data Evaluation and Establishment of Concentration Limits for contaminant Indicators – The DENR shall establish requirements and guidelines within one year from approval of IRR.
- e) Detection Groundwater Monitoring Data Statistical Analysis, Verification Monitoring – The DENR shall establish requirements and guidelines within one year from approval of IRR.
- f) Assessment Monitoring and Corrective Action – The DENR shall establish requirements and guidelines within one year from approval of IRR.
- g) Documentation of approvals, all reports, certification, plans and specifications, as built drawings, determinations and other requirements by the Department and other pertinent and relevant documents shall be kept in the facility's operating record.
- h) Signs:
 - 1. Each point of access from a public road shall be posted with an easily visible sign indicating the facility name and other pertinent information as required by the Department;
 - 2. If the site is open to the public, there shall be an easily visible sign at the primary entrance of the site indicating the name of the site operator, the operator's telephone number and hours of operation; and easily visible sign at an appropriate point shall indicate the schedule of charges and the general types of materials which will be accepted or not;
 - 3. If the site is open to the public, there shall be an easily visible road sign and/or traffic control measures which direct traffic to the active face and other areas where wastes or recyclable materials will be deposited; and
 - 4. Additional signs and/or measures may be required at a disposal site by the Department to protect personnel and public health and safety.
- i) The site shall be designed to discourage unauthorized access by persons and vehicles by using a perimeter barrier or topographic constraints. Areas within the site where open storage or ponding of hazardous materials occurs shall be separately fenced or otherwise secured as determined by the Department. The Department may also require that other areas of the site to be fenced to create an appropriate level of security.

- j) Roads within the permitted facility boundary shall be designed to minimize the generation of dust and the tracking of materials onto adjacent public roads. Such roads shall be kept in safe condition and maintained such that vehicle access and unloading can be conducted during inclement weather.
- k) Sanitary facilities consisting of adequate number of toilets and handwashing facilities shall be available to personnel at or in the immediate vicinity of the site.
- l) Safe and adequate drinking water supply for the site personnel shall be available.
- m) The site shall have communication facilities available to site personnel to allow quick response to emergencies.
- n) Where operations are conducted during hours of darkness, the site and/or equipment shall be equipped with adequate lighting as approved by the Department to ensure safety and to monitor the effectiveness of operations.
- o) Operating and maintenance personnel shall wear and use appropriate safety equipment as required by the Department.
- p) Personnel assigned to operate the site shall be adequately trained in subject pertinent to the site operation and maintenance, hazardous materials recognition and screening and heavy equipment operations, with emphasis on safety, health, environmental controls and emergency procedures. A record of such training shall be placed in the operating record.
- q) The site operator shall provide adequate supervision of a sufficient number of qualified personnel to ensure proper operation of the site in compliance with all applicable laws, regulations, permit conditions and other requirements. The operator shall notify the Department and local health agency in writing of the names, addresses, and telephone number of the operator or responsible party. A copy of the written notification shall be placed in the operating record.
- r) Any disposal site open to the public shall have an attendant present during public operating hours or the site shall be inspected by the operator on a regularly scheduled basis, as determined by the Department.
- s) Unloading of solid wastes shall be confined to a small area as possible to accommodate the number of vehicles using the area without resulting in traffic, personnel, or public safety hazards. Waste materials shall normally be deposited at the toe of the fill, or as otherwise approved by the Department. For practical purposes, a working area shall be limited to 1.5 square meter or less per ton/day (tpd) of waste received on a daily basis, e.g. 30 sqm working area for a 20 tpd facility.
- t) Solid waste shall be spread and compacted in layers with repeated passages of the landfill equipment to minimize voids within the cell and maximize compaction. The loose layer shall not exceed a depth approximately 0.60 m or two feet before compaction. Spreading and compacting shall be accomplished as rapidly as practicable, unless otherwise approved by the Department.
- u) Covered surfaces of the disposal area shall be graded to promote lateral runoff of precipitation and to prevent ponding. Grades shall be established of sufficient slopes to accost for future settlement of the fill surface. Other effective maintenance methods may be allowed by the Department.
- v) Cover material or native material unsuitable for cover, stockpiled on the site for use or removal, shall be placed so as not to cause problems or interfere with unloading, spreading, compacting, access, safety, drainage or other operations.

Article VII
Local Government Solid Waste Management

Section 39. Guidelines for Identification of Common Solid Waste Management Problems.

For purposes of encouraging and facilitating the development of city plans for solid waste management, the city shall coordinate and request from the Commission the guidelines for the identification of areas which have common solid waste management problems and are appropriate units for clustered solid waste management services based on the following:

- a) The size and location of areas which should be included;
- b) The volume of solid waste which would be generated;
- c) The available means of coordinating planning between and among the barangay and for the integration of such with the city plan; and
- d) Possible life span of the disposal facilities.

Section 40. Establishment of Common Waste Treatment and Disposal Facilities. Pursuant to Sec. 33 of RA 7160, otherwise known as the Local Government Code of 1991, all provinces, cities, municipalities and barangays, through appropriate ordinances, are hereby mandated to consolidate, or coordinate their efforts, services, and resources for purposes of jointly addressing common solid waste management problems and/or establishing common waste disposal facilities.

**CHAPTER VIII
SOLID WASTE MANAGEMENT FINANCING, INCENTIVES AND COST RECOVERY**

Section 41. National Solid Waste Management Fund. The city may avail of the Solid Waste Management Fund administered by the Commission in accordance to the guidelines for fund availment.

Section 42. Criteria for Availing the National SWM Fund. Subject to the availability of funds, the funds may be made available to the SWM project/activities of LGUs on the basis of a set of criteria formulated through a consultative process, duly published and copied to all concerned. Such criteria shall be reviewed and updated as necessary. Henceforth, the criteria for availment of the Fund shall include but not be limited to the list as follows:

- a) The SWM Plan of the city from which the project/activity was designed has been duly approved by the Commission.
- b) Funding request for project/activity does not exceed PHP1,500,000; provided however, the Commission; Secretariat shall review the funding level every three years. Only one (1) project/activity per LGU shall be eligible for support;
- c) Project/activity types under the following categories shall be considered:
 1. SWM projects which shall catalyze investment from the private sector and/or other investors
 2. Innovative SWM approaches
 3. Prototyping SWM models
- d) The City may avail of the SWM Fund once in every three (3) years, but not for the same project/activity;
- e) The City does not have another outside fund source for SWM tasks;
- f) The City is committed to put in counterpart funds, the computation of which shall be provided by the Commission Secretariat per LGU classification; and
- g) The process for Fund availment is completed.

Section 43. Process for Availing the National SWM Fund. The Commission through the Secretariat shall prescribe a simple procedure and proforma for fund application. The Commission shall strive for a decentralized system of accepting, appraising and approving of proposals. Furthermore, report proforma as well as procedures for the handling of government

fund shall be provided by the Commission. In general, the availment process shall start from the submission of a project/activity concept drawn from the SWM plan. Once the concept proposal is approved, the LGU shall submit a detailed version of the proposal for review and final decision by the Commission. Subject to a more detailed procedural guideline to be issued by the Commission the general process is described in **Appendix B** of these IRR of RA 9003.

In no case shall the Fund be used for the creation of positions or payment of salaries and wages.

Section 44.Incentives.Incentives shall be formulated by the SWM Board and provided for the purpose of encouraging enterprises, private sector and civil society to develop or undertake socially acceptable, effective and efficient solid waste management, and/or to actively participate in any program for the promotion thereof, as provided for in RA 9003 and its IRRs.

- a) Clean and green contest
- b) Reward
- c) Redemption Scheme for Recyclables

CHAPTER IX PENAL PROVISIONS

Section 45.Prohibited Acts. The following acts are prohibited:

- a) Littering, throwing, dumping of waste matters in public places, such as roads,sidewalks, canals, esteros or parks, and establishment, or causing orpermitting the same;
- b) Undertaking activities or operating, collecting or transporting equipment in violation of sanitation operation and other requirements or permits set forth inor established pursuant to this Act;
- c) The open burning of solid waste;
- d) Causing or permitting the collection of non-segregated or unsorted waste;
- e) Squatting in open dumps and landfills;
- f) Open dumping, burying of biodegradable or non-biodegradable materials inflood-prone areas;
- g) Unauthorized removal of recyclable material intended for collection byauthorized persons;
- h) The mixing of source-separated recyclable material with other solid waste in any vehicle, box, container or receptacle used in solid waste collection ordisposal;
- i) Establishment or operation of open dumps as enjoined in this Act, or closure of said dumps in violation of Sec. 37;
- j) The manufacture, distribution or use of non-environmentally acceptablepackaging materials;
- k) Importation of consumer products packaged in non-environmentallyacceptable materials;
- l) Importation of toxic wastes misrepresented as “recyclable” or “with recyclable content”;
- m) Transport and dumping in bulk of collected domestic, industrial, commercial and insttutional wastes in areas other than centers of facilities prescribedunder this Act;
- n) Site preparation, construction, expansion or operation of waste management facilities without a Environmental Compliance Certificate required pursuant to Presidential Decree No. 1586 and this Act and not conforming with the land use plan of the LGU;
- o) The construction of any establishment within two hundred (200) meters from open dumps or controlled dumps or sanitary landfills; and
- p) The construction or operation of landfills or any waste disposal facility on any aquifer, groundwater reservoir or watershed area and or any portions thereof.

Section 46.Fines and Penalties. The following are the fines and penalties:

- a) Any person who violates the first time Section 45, item a shall, upon conviction, be punished with a fine of not less than Three hundred pesos (P300.00) but not more than One thousand pesos (P1,000.00) or render community service for not less than one (1) day to not more than fifteen (15) days to an LGU where such prohibited acts are committed, or both;
- b) Any person who violates Section 45, items b and c, shall, upon conviction, be punished with a fine of not less than Three hundred pesos (P300.00) but not more than One thousand pesos (P1,000.00) or imprisonment of not less than one (1) day to not more than fifteen (15) days, or both;
- c) Any person who violates Section 45 items d, e, f, and g shall, upon conviction, be punished with a fine of not less than One thousand pesos (P1,000.00) but not more than Three thousand pesos (P3,000.00) or imprisonment of not less than fifteen (15) days but not more than six (6) months, or both;
- d) Any person who violates Section 45 items h, i, j and k for the first time shall be charged and penalized under Republic Act 9003 and upon conviction, pay a fine of Five hundred thousand pesos (P500,000.00) plus an amount not less than five percent (5%) but not more than ten percent (10%) of his net annual income during the previous year;
- e) The additional penalty of imprisonment of a minimum period of one (1) year, but not to exceed three (3) years at the discretion of the court, shall be imposed for second or subsequent violations of Section 45, items i and j;
- f) Any person who violates Section 45, items l and m shall be charged and penalized under Republic Act 9003 and upon conviction, be punished with a fine of not less than Ten thousand pesos (P10,000.00) but not more than Two hundred thousand pesos (P200,000.00) or imprisonment of not less than thirty (30) days but not more than three (3) years, or both;
- g) Any person who violates Section 45, items n, o and p shall be charged and penalized under Republic Act 9003 and, upon conviction, be punished with a fine not less than One hundred thousand pesos (P100,000.00) but not more than One million pesos (P1,000,000.00), or imprisonment not less than one (1) year but not more than six (6) years, or both.

If the offense is committed by a corporation, partnership, or other juridical entity duly organized in accordance with law, the chief executive officer, president, general manager, managing partner or such other officer-in-charge shall be liable for the commission of the offense penalized under this Act.

If the offender is an alien, he shall, after service of the sentence prescribed above, be deported without further administrative proceedings.

The fines herein prescribed shall be increased by at least ten percent (10%) every three (3) years to compensate for inflation and to maintain the deterrent function of such fines.

Section 47. Community Service. The penalties applicable for community service are, but not limited to the following:

- a) Donating 500 cc of blood;
- b) Cleaning of plaza, city hall, parks, market, streets, drainage and parking areas, help in shredding biodegradable wastes or join waste managers in collecting wastes, non-biodegradable wastes and other similar activities; and
- c) In case the violator is a minor with ages below 18 years old, the parent or guardian shall be responsible and subsidiary liable.

Section 48. Administrative Sanctions. Local government officials and officials of government agencies concerned who fail to comply with and enforce rules and regulations promulgated relative to this Ordinance shall be charged administratively in accordance with R. A. 7160 and other existing laws, rules and regulations.

Section 49. Enforcement Mechanisms. The following shall be observed in the enforcement of this ordinance:

- a) Apprehension. Upon apprehension, the apprehending officer/team shall immediately bring the violator to Ligao City Police Station for recording purposes or issue a citation ticket.
- b) Issuance of Citation Ticket. The apprehending officer shall take the name, address and other pertinent details of violation and same shall be written in the citation ticket citing the section/s violated.
- c) Payment of fine or render community service depending on the prescribed penalty. Payment of fines shall be through the City Treasurer's Office. In case the violator pledges to render community service, the apprehending officer shall guide him/her place of assignment for the community service.
- d) Filing of case in court. Failure to settle administrative fine within one (1) day from the imposition, the violator shall be immediately issued a Notice of Sue without the prejudice to the last sentence of the preceding section. Within the 30-day period of Notice to Sue, the violator may still be allowed to settle his/her administrative fine.

Section 50. Persons or Deputies Authorized to Enforce this Act. The Philippine National Police, law enforcement officers of the City (Deputy ENRO, Deputy Fish Warden, etc.), Barangay Officials and Tanods, Waste Managers other SWM enforcers or competent individuals of known integrity and probity, completed a training and capacity building and other government enforcement agencies, are hereby authorized to enforce this ordinance.

Section 51. Disposition of fines and proceeds. All fines and proceeds from apprehension accrue to the City Treasurer's Office shall be distributed as follows: 25% for the city; 35% for the barangay where the apprehension was affected and 40% for the apprehending team.

CHAPTER X MISCELLANEOUS PROVISIONS

Section 52. Citizen Suits. For purposes of enforcing the provisions of this Act or its implementing rules and regulations, any citizen may file an appropriate civil, criminal or administrative action in the proper courts/bodies against:

- a) Any person who violates or fails to comply with the provisions of this Act or its implementing rules and regulations; or
- b) The Department or other implementing agencies with respect to orders, rules and regulations issued inconsistent with this Act; and/or
- c) Any public officer who willfully or grossly neglects the performance of an act specifically enjoined as a duty by this Act or its implementing rules and regulations: Provided, however, That no suit can be filed until after thirty-day (30) notice has been given to the public officer and the alleged violator concerned and no appropriate action has been taken thereon.

Section 53. Suits and Strategic Legal Action Against Public Participation (SLAPP) and the Enforcement of this Act. Where a suit is brought against a person who filed an action as provided in Sec. 52 of this Act, or against any person, institution or government agency that

implements this Act, it shall be the duty of the investigating prosecutor or the Court, as the case may be, to immediately make a determination not exceeding thirty (30) days whether said legal action has been filed to harass, vex, exert undue pressure or stifle such legal recourses of the person complaining of or enforcing the provisions of this Act. Upon determination thereof, evidence warranting the same, the Court shall dismiss the case and award attorney's fees and double damages.

This provision shall also apply and benefit public officers who are sued for acts committed in their official capacity, there being no grave abuse of authority, and done in the course of enforcing this Act.

Section 54. Research on Solid Waste Management. – The Department, after consultations with the cooperating agencies, shall encourage, cooperate with and render financial and other assistance to appropriate government agencies and private agencies, institutions and individuals in the conduct and promotion of researches, experiments, and other studies on solid waste management; particularly those relating to:

- a) adverse health effects of the release into the environment of materials present in solid wastes, and methods to eliminate said effects;
- b) the operation and financing of solid waste disposal programs;
- c) the planning, implementation and operation of resource recovery and resource conservation systems;
- d) the production of usable forms of recovered resources, including fuel from solid waste;
- e) the development and application of new and improved methods of collecting and disposing of solid waste and processing and recovering materials and energy from solid waste;
- f) improvements in land disposal practices for solid waste (including sludge); and
- g) development of new uses of recovered resources and identification of existing or potential markets of recovered resources.

In carrying out solid waste researches and studies, the Secretary of the Department or the authorized representative may make grants or enter into contracts with government agencies, non-government organizations and private persons.

Section 55. Public Education and Information. The city shall, in coordination with DENR shall conduct a continuing education and information campaign on solid waste management. Such education and information program shall aim to a) develop public awareness of the ill-effects of and the community based solutions to the solid waste problem; b) concentrate on activities which are feasible and which will have the greatest impact on the solid waste problem of the country, like resource conservation and recovery, recycling, segregation at source, re-use, reduction and composting of solid waste; and c) encourage the general public, accredited NGOs and people's organizations to publicly endorse and patronize environmentally acceptable products and packaging materials thru the following:

- a) Organize the city and barangay SWM-IEC team; and
- b) Development of IEC materials

Section 56. Environmental Education in the Formal and Non-formal Sectors. - The city, through the DepED and in coordination with concerned government agencies, NGOs and private institutions, shall strengthen the integration of environmental concerns in school curricula at all levels, with particular emphasis on the theory and practice of waste management principles like waste minimization, specifically resource conservation and recovery, segregation at source, reduction, recycling, re-use and composting, in order to promote environmental awareness and action among the citizenry.

Section 57. Business and Industry Role. - The city shall encourage commercial and industrial establishments, through appropriate incentives other than taxincentives, to initiate, participate and invest in integrated ecological solid waste management projects, to manufacture environment-friendly products, to introduce,develop and adopt innovative processes that shall recycle and re-use materials,conserve raw materials and energy, reduce waste, and prevent pollution, and to undertake community activities to promote and propagate effective solid waste management practices.

Section 58. Mandatory Review. - The Sangguniang Panlungsod of Ligao shall undertake a mandatory review of this Act at least every five (5) years and as often as it may deem necessary, to ensure that policies and guidelines remain responsive to the changing circumstances.

CHAPTER XI TRANSITORY PROVISION

Section 59. Appropriation. To efficiently and effectively implement the provisions of this Ordinance, the Sangguniang Pnalungsod is vested with authority to appropriate funds in the amount of Three Million Two Hundred Thousand (P3,200,000.00) Pesos and the succeeding operations will be included in the budget for 2011.

Section 60. Repealing Clause. All existing municipality/city ordinances or part thereof which is inconsistent with the provisions of this Ordiance, are hereby repealed or modified accordingly.

Section 61. Separability Clause. If for any reason or reasons, any part of this Ordinance is declared unconstitutional or invalid, the other portions or provisions hereof, which are not affected thereby, shall continue in full force and effect.

Section 62. Effectivity. This ordinance shall take immediately upon its approval and publication.

DATE ENACTED: FEBRUARY 07, 2011

RESOLVED FURTHER, that copies of this Ordinance be furnished all Punong Barangays, the City Environment and Natural Resources, City Agriculture Office, City Health Office, General Services Office, the Budget Office, The City Accounting Office, and the City Treasurer Office; for their information and appropriate favorable action.

UNANIMOUSLY APPROVED.

WE HEREBY CERTIFY to the correctness of the foregoing ordinance.

AUTHOR:

JORLAN T. GUANZON
SP Chairman Committee on Environment

ARMANDO S. ABO
Secretary to the Sanggunian

ATTESTED:

PATRICIA G. ALSUA
City Vice Mayor/ Presiding Officer

APPROVED:

LINDA P. GONZALEZ
City Mayor

Cel/yah/