



Republic of the Philippines
BATANGAS STATE UNIVERSITY
Batangas City, Batangas



ENVIRONMENTAL MANAGEMENT UNIT

Phone: (043) 980 – 0385 loc 1132

FOR : Dr. EXPEDITO V. ACORDA
Chancellor

SUBJECT : REVISIONS ON THE POLICY AND GUIDELINES ON WASTE
MANAGEMENT SYSTEM (WMS)

DATE : March 29, 2021


Submitted herewith is the copy of the Revised Policy and Guidelines on Waste Management System (WMS), based on the first WMS dated **May 17, 2016**, for validation and approval. Revisions are based on:

1. Updates on Water Quality Guidelines of Department of Environment and Natural Resources (DENR) (from DAO 90-35 to DAO 16-08);
2. New policies of Batangas City Environment and Natural Resources Office (CENRO) regarding biodegradable waste disposal, and
3. Updates on Hazardous Waste Management.
4. Decentralization of Environmental Management Unit

For proper implementation and dissemination, it is recommended that the same be issued to offices concerned in a form of a memorandum circular from your good office.

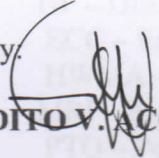
Let us act to have a harmonious environment and clean university.

Respectfully,


Engr. DIOSA MARIE M. AGUILA
Head, EMU Pablo Borbon Campus

Recommending Approval:


Dr. GINA D. BONIFACIO
Vice Chancellor, Administration and Finance

Approved by: 
Dr. EXPEDITO V. ACORDA
Chancellor



POLICIES AND GUIDELINES ON WASTE MANAGEMENT SYSTEM (WMS)

1. General

Wastes are discarded materials of the University either in solid, liquid or gas form. The wastes generated in every premise shall be safely collected, processed and disposed so as not to cause negative environmental and health impact.

Institutional wastes of the University shall be monitored, recorded, evaluated and reported to regulatory agencies showing the compliance to environmental regulation.

2. Scope

- 2.1. The guidelines on waste management shall be applied from constituent campuses to extension campuses.
- 2.2. The guidelines shall apply to any individual or group as a guide to a systematic management of waste in every premise in each campus.

3. Definitions:

For better understanding of the guideline, the following were used:

- 3.1. Permit – a document issued by a regulatory agency to the University authorizing the disposal, discharge or release of residual, effluent and exhaust respectively, to the environment. In this guideline, this refers to Permit to Operate and Discharge Permit.
- 3.2. Waste – refers to discarded materials with or without purpose and/or special handling after it serves its intended use. In this guideline, this refers to solid waste, wastewater, hazardous waste and Air exhaust waste.
- 3.3. Waste Management System – the systematic way of collection, transportation, treatment and disposal of generated waste in the campus.

4. Acronym

- 4.1. APSE – Air Pollution Source Equipment
- 4.2. AQMA – Air Quality Management Act or RA 8749
- 4.3. CMR – Compliance Monitoring Report
- 4.4. DENR-EMB – Department of Environment and Natural Resources-Environmental Management Bureau
- 4.5. DP – Discharge Permit
- 4.6. ECC – Environmental Compliance Certificate
- 4.7. HWMA – Hazardous Waste Management Act or RA 6969
- 4.8. MRF - Materials Recovery Facility
- 4.9. PTO – Permit to Operate
- 4.10. SDS – Safety Data Sheet
- 4.11. STP - Sewage Treatment Plant
- 4.12. SWMA – Solid Waste Management Act or RA 9003
- 4.13. UCARF – Unified Concern and Action Request Form (UCARF)
- 4.14. WQMA – Water Quality Management Act or RA 9275

5. Basic Components

The guidelines on waste management have five (5) basic components:

5.1. Solid Waste Management

5.1.1. Generation

- a. *Items to be purchased by the University shall be environmentally-acceptable, durable and cost effective to minimize waste generation.*
- b. *Procurement of items for the University's Operation shall be in bulk order to avoid excessive packaging materials to be disposed of.*
- c. *Packaging products to be used shall be of recyclable type.*
- d. *The waste shall be segregated from the source of generation.*
- e. *Waste generated shall be recorded and updated as basis in compliance with SWMA and for future policy making.*
- f. *Food wastes shall not be accessible to stray animals and pests. Moreover, it is prohibited to feed the stray animals with any type of food or waste.*
- g. *Students, faculty members and staff must be familiar with the importance of segregation and waste reduction through online infographics, webinars, seminars/posters.*

5.1.2. Collection

- a. *A waste collection point shall be established in each campus for the centralized collection of waste.*
- b. *Strategically-located and sealed bins shall be made available for all stakeholders staying in the campus.*
- c. *Bins shall be properly labeled to indicate specific wastes to be contained (biodegradable, recyclable, or residual) for a more efficient segregation from collection of wastes.*
- d. *Janitors shall be in PPEs (gloves, face masks) to avoid exposure to possible disease-causing microorganisms.*
- e. *Waste shall be collected by the janitors from the bins and be brought to the Material Recovery Facility.*
- f. *Wastes generated from trimming, landscaping and the like shall not be part of the containers positioned in collection points. A plastic or other approved container shall be used to avoid overloading the capacity of the positioned bins. This container shall not contain non-biodegradable wastes and must be brought to the composting area.*
- g. *Containers shall be ensured to be tightly sealed at all times.*
- h. *Periodic waste collection must be observed by the janitors, or at maximum capacity of the bins.*
- i. *Waste collected shall be inspected for proper segregation.*

5.1.3. Transportation (from university facility to hauler's facility)

- a. *Containers i.e. plastic bags or sacks shall be inspected and ensured to be sealed properly.*
- b. *For hazardous wastes, incompatible materials shall be far from each other. SDS shall be used as guide.*
- c. *Approved materials for containment of waste and appropriate vehicles shall be used during the course of transportation. SDS shall be used.*
- d. *Service provider shall select a transport route, shall avoid populated area, watershed or catchment area, and environmentally sensitive area.*
- e. *Schedule for transportation must be at least once or twice a week, or when storage places are full.*

5.1.4. Processing and Recovery

- a. All waste (excluding hazardous waste) generated shall be brought and processed to the Material Recovery Facility (MRF) for energy recovery. It shall be weighed and recorded. Hazardous waste, along with UCARF, shall be handed over directly to the MRF Operator for proper storage.
- b. Ensure all recyclables are recovered.
- c. Residual wastes are separated from recyclables for its collection by the municipal garbage hauler.
- d. Recovered items shall be restored for selling and other significant purposes.
- e. Emptied containers or bins shall be triple-rinsed with water or other suitable solvent and air dried to ensure that it is free of liquid or other visible chemical residue.
- f. All recovered items must be placed in a safe and secured storage.

5.1.5. Disposal

- a. Only residual wastes shall be subjected for disposal after thorough processing of waste.
- b. No recyclable wastes shall be disposed by the municipal garbage hauler.
- c. Biodegradable wastes shall be immediately collected and disposed to avoid harborage of vectors and transmit communicable diseases.
- d. Biodegradable wastes shall be properly composted in an isolated composting facility.
- e. Wastes shall not be burned.
- f. Residual wastes shall be placed in a safe and secured disposal.

5.2. Wastewater Management

5.2.1. Generation

- a. A metering device shall be installed to monitor water consumption.
- b. Water being supplied to the buildings shall be recorded and updated.
- c. Procurement of plumbing fixtures, equipment and the like shall be environmentally acceptable.
- d. Periodic inspection of systems must be observed.
- e. Leakages in the piping system shall be corrected.
- f. Use of water shall be minimized.
- g. Use other ways of cleaning materials other than water.

5.2.2. Collection

- a. All wastewater shall be collected by an approved piping material: acid-resistant, durable and cost effective.
- b. Discharge of waste from different plumbing fixtures shall be conveyed through the building sewer to a point of disposal.
- c. Wastewater from different sources shall be drained and conveyed for treatment.
- d. Storm water shall be collected through conductor/downspout and conveyed it in any receiving water retention facility, canal or body of water.

5.2.3. Treatment

- a. Wastewater shall be treated prior to its disposal to the environment.
- b. An approved septic system shall be constructed so as to provide treatment of sewage to avoid surface and subsurface contamination.
- c. Monitoring of the quality of effluent shall be done to ensure compliance to laws and regulations.

5.2.4. Disposal

- a. Ensure that discharge permit has been secured from the authority in compliance with the law.
- b. Ensure that the effluent discharge to the environment passed the effluent standard stipulated in DAO 16-08.
- c. All waste discharge in the environment shall be in compliance with WQMA.

5.3. Hazardous Waste Management

5.3.1. Generation

- a. All waste generated shall be registered to the regulatory agency for their inventory.
- b. A Generator's ID number shall be secured from the authority as a transaction ID number for the issuance of permit to transport of waste.
- c. Any material containing toxic, hazardous elements for procurement shall be considered by the management to minimize significant environmental and health effects when incidentally spilled, released and its cost of cleaning, collection, treatment and disposal.
- d. Chemicals for procurement shall be based on the required quantity to minimize waste generation.
- e. Use of alternative and non-toxic materials, if possible, as packaging material for equipment, instruments so to reduce special handling and operation and maintenance cost.
- f. Train or inform the personnel and staff on the hazards posed by the improper handling, storage, transport, and use of hazardous waste and the containers.

5.3.2. Collection

- a. Every hazardous waste generated (e.g. busted fluorescent light bulb, paint container) shall be turned over to a designated officer (e.g. MRF Operator). The designated officer shall log (in a logbook or form) all received hazardous wastes for proper accounting. Hazardous wastes shall not be disposed in an ordinary plastic bin. An approved method of collection shall be used upon collection of the waste.
- b. All waste shall be collected with proper protective gear to avoid contact and exposure to chemicals either for short or long period of time.
- c. Waste shall be collected using an approved container: leak and punctured-proof, durable and cost-effective.
- d. Waste shall not be drained in piping systems to avoid mixture of incompatible materials to prevent explosions, damage to lives and properties.

5.3.3. Transfer

- a. An approved method of handling shall be used in transferring waste from the point of generation to the temporary storage area.
- b. An approved vehicle shall be used in transporting waste so as to avoid spilling and/or released to the environment.

5.3.4. Storage

- a. Waste shall be safely stored prior to its collection by the authorized hauler.
- b. The storage area shall be equipped with proper ventilation and security for safety purposes.
- c. The storage area shall not be accessible to people except for the person in-charge to ensure public health protection.
- d. All containers must be regularly checked for leaks.

5.3.5. Labeling

- a. The size of the label is minimum 20cm by 30cm.
- b. The color of the label is yellow background and black for letters conspicuously marked in paint or other permanent form of marking.
- c. The material of the label must be scratch proof and resistant to tampering and weathering.
- d. The label is accompanied with the symbol corresponding to the characteristics of hazardous waste.

5.3.6. Packing

- a. In packing the hazardous waste, the containers must be in good condition without leaks and damages.

- b. The containers must be equipped with a strong lid or cap to prevent spillage during the transport.
 - c. The containers to be used must be made from materials suitable for the characteristics of hazardous waste.
- 5.3.7. Transport and Treatment
- a. Only authorized hauler with proper permit shall transport the generated waste.
 - b. The management shall ensure that all waste generated shall be transported and treated prior to its disposal.
- 5.3.8. Disposal
- a. All waste shall be disposed in a sanitary landfill or other approved method of disposal.
 - b. All waste that is being disposed shall be recorded for documentation purposes.

5.4. Personal Protective Equipment (PPE) Disposal

5.4.1. Used disposable mask

- a. Masks must be cut in half to avoid reuse.
- b. Masks must be disposed of in a trash bag separate from other residual waste and must be labeled as "disposable PPE" or "infectious waste". Date of disposal shall be also included in the label.
- c. Storage of waste in the separate trash bag shall be 72 hours before throwing in the residual waste.

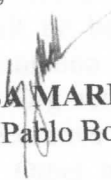
5.4.2. Used disposable gloves

- a. Gloves shall be ensured to be inside-out, one glove enveloped inside the other, when disposed of in a trash bag separate from other residual waste.
- b. Trash bags shall be labeled as "disposable PPE" or "infectious waste". Date of disposal shall be also included in the label,
- c. Storage of waste in the separate trash bag shall be 72 hours before throwing in the residual waste.

5.5. Air Exhaust Management

- 5.5.1. All APSE shall be periodically maintained.
- 5.5.2. All exhaust from any air pollution source equipment shall be periodically monitored and tested to ensure compliance to standards.
- 5.5.3. All gases released from APSE shall be treated, if applicable, so as not to induce negative environmental and health impact.
- 5.5.4. Submission of reports to the regulatory agency shall be made in compliance with the AQMA.

Respectfully,


Engr. DIOSA MARIE M. AGUILA
 Head, EMU Pablo Borbon Campus

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APPENDIX for Main 1 Campus

1. Hazardous Waste Generator's ID

- 1.1. Hazardous Waste Generator's ID was issued to Batangas State University on April 19, 2017, with registration number GR-4A-100-000238. The types of wastes registered are shown in Table 1:

Table 1. Hazardous wastes registered to the University

Hazardous Waste Description	Waste Number
Hydrochloric acid/ Sulfuric acid Mixed acid/ Base wastes	B206
Pathological/Infectious waste	M501
Busted Fluorescent Lamps	D407
Paint containers	J201

These are the only hazardous wastes that the University can dispose. This list must be seen in laboratory guidelines or manuals. Activities like these, researches and experiments that are planning to generate other types of hazardous wastes shall not push through. If an activity is deemed essential and will generate hazardous wastes for a long period of time, this shall be requested to EMU. EMU shall thereby apply to EMB as generator of this hazardous waste. However, until the EMB granted the application, the said hazardous waste shall not be generated.

2. Food waste

- 2.1. Trash bins and bags for food waste shall be labeled as such.
- 2.2. Food wastes may be brought home by any university stakeholder to be used as feeds for animals or for composting. Else, they shall be brought to MRF for composting.
- 2.3. Laboratories with food waste
Food wastes are considered biodegradable wastes and shall not be mixed with residual wastes. Laboratories generating food wastes must provide separate bins.
- 2.4. Other sources of food waste
Food wastes generated outside the canteen premises e.g. from packed lunch or delivery shall not be mixed with residual wastes and shall be disposed in separate bins. Offices shall provide the separate bin for food waste.

3. Students Projects and Props and Decorative Materials

- 3.1. The use of styrofoam as raw materials for props, projects, and bulletin boards is strictly prohibited.
- 3.2. Students' projects e.g. dioramas, decorative materials during an exhibit, and 3D models shall be brought home. Educators must explain this to the students during the class orientation and shall remind the students before assigning projects.
- 3.3. Org activities are discouraged to use decorative materials that will only be used ones. Decorative materials used by an organization shall also be brought home.
- 3.4. Other materials used as decorations in school events such as pageants, parties and assemblies shall be brought home or. It is also encouraged to keep and reuse them in other events.