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WASTE MANAGEMENT AND SANITATION **PROGRAMS**

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١. **PURPOSE**

The purpose of these guidelines is to provide a set of standards, strategies and devices on how to treat waste materials and how to provide adequate sanitation to protect the health and safety of the building occupants as well as the environment. This may include the collection, disposal, recycling, transportation and processing of waste to curb waste for reasons such as public health threats, environmental concerns and general appearance of the campus.

11. SCOPE

These guidelines are applicable to all employees, students, tenants and visitors.

III. **DEFINITIONS**

Biodegradable Waste

Includes day-to-day products which come out of the homes, offices, restaurants, gardens, but can be returned to nature. These products can eventually be decomposed by the action of bacteria on them and hence they do not remain in the same physical form that they were when they were chucked out.

Recyclable Waste

It involves reusing of materials by reprocessing them industrially and turning them into new or similar products. Recycling is a conservation method of waste disposal and making new products out of the waste materials.

Hazardous Waste

Includes chemical, biological and other items which could potentially be toxic and/or contagious. They are usually dumped into the trash along with all the other waste items which are hazardous to the environment and safety of the people.

Electronic Waste

Is defined such as discarded computers, office electronic equipment, entertainment device electronics, mobile phones, television sets, and refrigerators. This definition includes used electronics which are destined for reuse, resale, salvage, recycling,

or disposal.

CDMO

Campus Devolopment and Maintenance Office

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MAPUA Institute of Technology

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IV. RESPONSIBILITY AND AUTHORITY

Housekeeping Supervisor

Shall monitor the strict implementation of proper

segregation of waste.

Janitors

Shall collect the garbage in different waste bin and

segregate it in proper disposal.

Pollution Control Officer

Shall ensure compliance with the requirements of Presidential Decree 1586, Republic Act (RA) 6969, RA 8749, RA 9003, RA 9275, their respective implementing rules and regulations, and other

pertinent rules and regulations

Udenna Environmental Services

DENR registered environmental transporter, hauler and treater, contracted by Mapua to collect, transport and perform treatment on various hazardous waste generated by the campus included in the Waste Generation ID issued by

DENR

CDMO

Shall be responsible for the proper disposal of all types of wastes including the recording of all hazardous wastes being transporterd by Udenna

V. DETAILS OF REFERENCE GUIDELINES

Waste Management Program

Waste management plan of the University shall be for the re-use, recycling and composting of wastes generated in the campus including the proper disposal of hazardous waste.

A. For Biodegradable Waste (food, paper, garden wastes)

1. Garden Waste

Several compost bins are located in the landscape and parking area for the yard waste like weeds, leaves, branches, and the like. Garden waste scraps such as trimmings and fallen leaves and braches are being composed to replenish the soil, enhances water retention in soils and reduce the purchase of additional garden soil and chemical fertilizers.

2. Food Waste

 The canteen concessionaires are required to provide a separate trash bin exclusive for their generated food waste.



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Food waste scraps are being composted in the University which will help to replenish
the soil, enhances water retention in soils and reduce the need for chemical fertilizers.

3. Paper Waste

- Paper Waste bins are provided along hallways and some offices so that used paper will be disposed properly. These used papers will be collected and sorted by the housekeeping personnel to be reused, donated or sold to material recovery facilities.
- Used papers are recycled as scratch paper which may be used for printing of documents, trash bin liners, and notepad.
- B. Recyclable Waste (pet bottles, aluminum cans, metal, scrap wood, glass, etc.)
 - 1. Pet bottles and aluminum cans

The University has provided racks for pet bottles and aluminum cans along the hallways. These pet bottles and aluminum cans will be collected and sorted by our housekeeping personnel which may be sold or donated to material recovery facilities.

- Construction debris (scrap wood, and metal waste)
 Generated construction debris in the campus will be reused, donated or sold to material recovery facilities.
- Glass (bottles, containers, panel/board, etc.)
 Sorting bins for glass bottles/containers are located in the different areas of the campus.
 These glass containers/bottles will be collected and sorted by our housekeeping personnel to be donated or sold to material recovery facilities.
- C. Hazardous Waste (chemicals, pesticides, petroleum, expired paints and empty paint cans, fluorescent lamps/tubes, medical waste, batteries, etc.)

1. Chemical Waste

Chemical and biological wastes from ILMO laboratories are placed in sealed carbouy which are properly labelled and kept stored at our Hazardous Waste Room. Mapua University has contracted the services of a DENR registered environmental transporter, hauler and treater, Udenna Environmental Services, to collect, transport, perform treatment and properly dispose in government approved sanitary landfill for the various chemical and biological waste generated by the campus.

Among the types of hazardous chemical waste being generated by our laboratories and included in the Hazardous Waste Generator ID issued by DENR are B201 (Sulfuric Acid Wastes); B299 (Other Acid Wastes); (F699) Aqueous-based waste; (D499) Other wastes w/ Inorganic Compounds; G704 (Non-halogenated Organic Solvents).



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2. Pesticides and Chemicals used for Pest Control Services

Mapua University requires the pest control service provider to submit a copy of the Safety Data Sheet and Certificate of Registration issued by the Food and Drug Administration, to ensure that all the chemicals and pesticides they are using are safe to people and environment friendly.

Empty plastic container of pesticides and chemicals are collected by our housekeeping personnel and placed in a sealed carbouy properly labelled and kept stored at the Hazardous Waste Room. These type of hazardous waste with HW No. J201 are turned over to Udenna Environmental Services for proper disposal and treatment of waste.

3. Paint

Empty paint cans and expired paints are collected by maintenance personnel and placed in a fabricated wooden crates/boxes which are properly labelled and kept stored at the Hazardous Waste Room. These type of hazardous waste with HW No. J201 are turned over to 'Udenna Environmental Services for proper disposal and treatment of waste.

4. Used Industrial Oil from Generator Units

Used industrial oils are stored in a sealed drum, properly labeled and kept stored in a dry storage room at the Generator Set House. These type of hazardous waste with HW No. I101 are turned over to Udenna Environmental Services for proper disposal and treatment of waste.

5. Used Cooking Oil

The canteen concessionaires are required to provide a separate container exclusive for their used cooking oil. The generated used oil are collected by the housekeeping personnel, and placed in a sealed carbouy which are properly labelled and kept stored at the Hazardous Waste Room.

Used oils (under Hazadous Waste Classification: I102) are turned over to Udenna Environmental Services for proper disposal and treatment of waste.

6. Fluorescent lamps/tubes

Generated busted lamps and bulbs are collected by maintenance personnel and placed in a fabricated wooden crates/boxes, properly labelled and kept stored at the Hazardous Waste Room. These type of hazardous waste with HW No. D407 are turned over to Udenna Environmental Services for proper disposal and treatment of waste.

7. Batteries

Used batteries are collected and placed inside a box by every department, before handing it over to CDM Department for storing . These batteries are placed in a sealed carbouy and kept stored at the North Hazardous Waste Room. These type of hazardous waste with



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HW No. D406 are turned over to Udenna Environmental Services for proper disposal and treatment of waste.

8. Cleaning Materials

Mapua University campus requires contracted Housekeeping Service Provider to submit a copy of the Safety Data Sheet and Certificate of Registration issued by the Food and Drug Administration, to ensure that all the chemicals and cleaning agents they are using are safe to people and are environment friendly.

Empty plastic container of cleaning chemicals are collected by our housekeeping personnel and placed in a sealed carbouy properly labelled and kept stored at the North Hazardous Waste Room. These type of hazardous waste with HW No. J201 are turned over to Udenna Environmental Services for proper disposal and treatment of waste.

E. Clinical/Medical Waste

Health Services Department collects all used needles, scalpels, syringes, cotton, gauze and other medical waste in a properly labelled container and kept in a dry storage room. Below is the color coding scheme to be used in the health care facility as stipulated in the Healthcare Waste Management Manual of the Department of Health (DOH):

- 1. Black (for non-infectious dry waste)
 - Bottles
 - Cans
 - Plastics
 - Papers
- 2. Green (for non-infectious wet waste)
 - Kitchen Waste
- 3. Yellow Plastic Bag (for infectious waste)
 - Cotton balls
 - Gauze
 - Gloves
 - Masks
- 4. Yellow Medical Sharps/Needles container (for sharps/needles whether or not they are contaminated)

These clinical/medial wastes are collected by the housekeeping personnel under the supervision of the School's Pollution Control Officer, and placed in a sealed carbouy properly labelled and kept stored at the Hazardous Waste Room. These type of hazardous waste with HW No. M501



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& M503 are turned over to Udenna Environmental Services for proper disposal and treatment of waste.

The standard features the clinical/medical waste receptacles have are:

- 1. The receptacle for sharps/needles (RED) should be puncture proof (usually made of metal or high-density plastic) and fitted with covers. It should be rigid and impermeable to contain not only the sharps but also any residual liquids from syringes.
- 2. The receptacle must be lined with a waste bag that will help in safe disposal.
- 3. Heavy gauge metal should be used on the outer and inner sides of the receptacles to provide protection against burning, smoke and fumes.
- 4. The receptacles should be sturdy and rust proof.
- 5. The receptacles should have a vapor barrier that will prevent mildew and will also help in protecting the floors.
- 6. The receptacles for infectious waste (YELLOW) should be marked with the International Infectious Substance Symbol.
- F. Electronic Waste (electronic gadgets, computers, toners/ink, office electronic equipment, etc.)
 - 1. Electronic gadgets

Mapua Intramuros campus provides Electronic Waste (e-waste) bins along the hallways. The accumulated e-wastes are collected by the housekeeping personnel, and placed in a fabricated wooden crates/boxes, properly labelled and kept stored at the Hazardous Waste Room. These type of hazardous waste with HW No. M506 are turned over to Udenna Environmental Services for proper disposal and treatment of waste.

2. Computers and computer accessories

Defective computers and accessories are collected and boxed by DO-IT Department. Once accumulated, DO-IT will transmit it to CDM Department for safekeeping. These type of hazardous waste with HW No. M506 are turned over to Udenna Environmental Services for proper disposal and treatment of waste.

Some obsolete computers and accessories are donated or sold to material recovery facilities.

3. Used inks and toner cartridges

Used inks and toner cartridges are collected and sorted by our housekeeping personnel. These inks and toners are placed in a sealed carbouy and kept stored at the Hazardous Waste Room. These type of hazardous waste with HW No. M506 are turned over to Udenna Environmental Services for proper disposal and treatment of waste.



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Sanitation Program

The purpose of our sanitation program is to provide a clean and sanitary environment to prevent and control infections and to meet all the regulartory requirements.

1. Toilets

Comfort rooms are cleaned on a regular basis using safe cleaning chemicals and disinfectants provided by the Housekeeping Service Provider. Housekeeping personnel has a toilet cleaning checklist clipped at the back of the entry toilet door to ensure correct routine of cleaning. Security Department conducts daily ocular inspection of toilets to verify cleanliness as per actual toilet condition.

Our in-house plumber is responsible for inspecting all our comfort rooms to check if all toilets are working properly. In case of clogging and/or water leak, the plumber will repair it immediately. The in-house plumber has a weekly maintenance checklist which is submitted on a weekly basis.

2. Food waste

Canteen Concessionaires are required to have a separate garbage bin for their food waste. They are also required to submit an annual written certification to CDM Department stating that they are disposing properly their food waste.

Some food waste are being composted using an enclosed composted bin to replace chemical fertilizers.

3. Liquid soap

Students and personnel are provided with liquid soap inside the toilets and at selected common areas.

4. Alcohol

Students and personnel are provided with alcohol. Alcohol dispensers are placed along hallways, offices, canteen, library, etc.

5. Portable wash areas

Portable wash areas are installed in some areas at the ground floor aside from the wash areas in the comfort rooms and canteen.

6. Grease Trap

Canteen Concessionaires are required to clean the grease trap regularly, while the CDM Department performs cleaning of grease box on a monthly basis. The accumulated grease waste are collected by the housekeeping personnel and placed in a sealed carbouy properly labelled and kept stored at the hazardous waste room. These type of hazardous waste with HW No. H802 are turned over to Udenna Environmental Services for proper disposal and treatment of waste.



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7. Sanitary Permit for Canteen Concessionaires
Canteen Concessionaires are required to obtained a sanitary permit from the City Hall. The permit is posted to the public's view at all times.

- 8. Health Certificate for all canteen employees
 Canteen Concessionaires are required to submit a copy of the health certificates of all canteen
 personnel to the CDM Department on a yearly basis.
- Siphoning of Septic Vault
 CDM Department contracts the service of Maynilad/Manila Water and/or 3rd party to perform
 siphoning of septic vault every two years.
- 10. Water Potability Testing (Drinking Water & Tap Water) In-house Water Refilling Station conducts monthly drinking water potability testing to ensure safe and clean drinking water for the Intramuros campus. For Makati Campus, the 3rd party who is supplying the drinking water for the students and employees is required to submit a drinking water potability certification on a monthly basis. Tap water is being tested for water potability on a quarterly basis for both campuses.

VI. PERFORMANCE INDICATOR

Timely submission of quarterly Self-Monitoring Report (SMR) to comply with the implementing rules and regulation of the EMB.

1st Quarter SMR Submission — April 01-15 2nd Quarter SMR Submission — July 01-15 3rd Quarter SMR Submission — October 01-15 4th Quarter SMR Submission — January 01-15

Waste Management and Sanitation programs of the University are being followed and implemented especially on the proper disposal of waste.

VII. PERFORMANCE INDICATOR

If in case an employee or a department will not follow the waste management program, a memo will be given to the concerned employee/department or a sanction may be imposed through HRD.



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VIII. REPORTORIAL REQUIREMENTS

Report Title	Frequency of Update	Responsible Personnel		
Self- Monitoring Report	Quarterly	PCO		
Certificate of Treatment	Every after the treatment and disposal of Haz. Waste	UDENNA		
Hazardous Waste Manifest Form	Every after the treatment and disposal of Haz. Waste	PCO / UDENNA		

IX. REFERENCE DOCUMENTS

Document Code	Title
FM-CD-15-02 FM-CD-16-02	Monthly Housekeeping Cleaning Checklist Weekly Toilet Inspection Checklist
FM-CD-23-02	Garbage Disposal
FM-CD-24-02	IPM Garbage Hauler Monitoring
FM-CD-31-02	Watchmans Monitoring of Daily Toilet Cleaning
	FM-CD-15-02 FM-CD-16-02 FM-CD-23-02 FM-CD-24-02



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