

Department

EHS

# **WASTE MANAGEMENT**

Doc No.	MTL/COR/EHS / PLY/02	
Effective Date	03/01/2024	
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#### PURPOSE

The purpose of this standard is to set out a procedure for disposal of waste in an environmentally sound manner by complying with regulatory requirements.

#### SCOPE

This policy shall apply to all establishments of Manjushree Technopack Ltd, and each employee shall be made a partner in implementing the policy.

This policy is applicable to all Manjushree Technopack Limited business units, including subsidiaries, joint ventures, and acquisitions, managed sites, licensees, outsourcing partners, corporate offices, and research facilities. This policy is also applicable to all Manjushree Technopack Limited employees, contractor employees, business partners, suppliers, and others with whom Manjushree Technopack does business.

In addition, this policy is applicable throughout the operational lifecycle of the projects, covering stages from exploration and planning to evaluation, operation, and closure. Furthermore, it extends to upstream operations.

#### 3. REGULATORY FRAMEWORK

- The Environment (Protection) Act, 1986
- The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
- The Solid Waste Management Rules, 2016
- The E-Waste (Management) Rules, 2016
- The Bio-medical Waste Management Rules, 2016
- The Plastic Waste Management Rules, 2016

#### 4. DEFINITION

Hazardous waste	These wastes belong to a category of special wastes containing certain chemicals, metals and pathogenic organisms which can cause damage to the environment even at low levels of concentration. These wastes are defined because of their characteristics such as toxicity, corrosiveness, flammability and reactivity.
Non-hazardous waste	Wastes that are not classified as hazardous waste, such as domestic waste, office waste, wood, food waste, etc.
e-waste	Waste electrical and electronic equipment, whole or in part or rejects from their manufacturing and repair process, which are intended to be discarded
Battery	Lead acid battery which is a source of electrical energy and contains lead metal

# 5. POLICY STATEMENT

Manjushree Technopack Limited is dedicated to implementing effective waste management practices by:

- Ensuring adherence to all relevant legal and regulatory requirements; and
- Continuously enhancing its policies and procedures to adapt to evolving environmental standards and technologies and promoting waste reduction and proper management.



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#### 6. POLICY OBJECTIVES

The objectives of this policy are to:

- Ensure waste management in accordance with all legislative requirements, plan for future legislative changes and mitigate their effects.
- We shall conduct a waste audit to identify water-saving opportunities through internal or external expertise. Based on the findings, we will prioritize key conservation areas and implement improvements accordingly
- Minimize waste generation at source and facilitate reduction, reuse and recycling of waste generated through authorized recyclers and vendors in a cost-effective manner.
- Provide clearly defined guidelines for identifying and coordinating activities within the waste management process.
- Promote environmental awareness to minimize waste generation and encourage adopt reuse, and recycling initiatives.
- Ensure safe handling and storage of waste of various types at all facilities and locations owned by Manjushree Technopack LTD.
- Promote the best practices and holistic approaches on waste management.
- Ensure that hazardous waste, including used batteries and e-waste, is sent to recyclers authorized by the State/Central Pollution Boards at the respective locations.
- Benchmark parameters against the industry best practices to establish and continuously improve waste management systems

#### 7. GOALS:

Based on our production capacity, we aim to achieve the following waste reduction targets across all MTL locations:

- 10% reduction in both hazardous and non-hazardous waste by the end of FY-2030.
- 25% reduction in both hazardous and non-hazardous waste by the end of FY-2050.
- Reusing waste wherever practicable

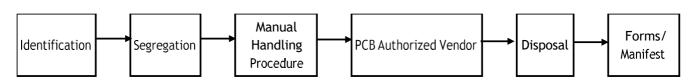
#### 8. RESPONSIBILITY

- **Management:** Responsible for establishing and implementing waste management policies, providing necessary resources, and monitoring compliance.
- **Employees:** Required to follow waste management procedures, participate in training programs, and report any waste-related issues or concerns and the employees are also encouraged to come up with the idea on waste reduction management.
- **Waste Management Personnel:** Responsible for overseeing waste segregation, handling, recycling, and disposal activities.
- **EHS:** EHS personnel are responsible to monitor the overall process of waste management and maintain the required documents.



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9. HAZARDOUS WASTE



# 9.1 Collection, transportation, storage, and disposal of Waste Electrical and Electronic Equipment and Batteries:

The following procedure has been extracted from regulatory requirements, national and state level guidelines. The following steps must be followed:

- At the warehouse there must be designated area for storing hazardous materials, and segregation between damaged and undamaged materials.
- There must be adequate PPEs provided to the workers engaged in the collection, storage, loading and unloading work to prevent the exposure of workers with toxic materials.
- The warehouse must have adequate ventilation arrangement to prevent the accumulation of toxic gases or fumes from the segregated materials.
- There must be a legal agreement for the safe disposal or recycling of hazardous waste material between the vendor and the SPCB authorized hazardous waste recycling/disposal units
- The management must ensure that all the necessary records are maintained as per the Hazardous Waste (Management, Handling and Transboundary Movement) Rules.

#### 9.2 Collection, transportation, storage, and disposal of used oil

The following procedure has been extracted from regulatory requirements, national and state level guidelines. The following steps must be followed:

- Only authorized and trained personnel must remove used oil from the machinery or wherever applicable.
- The used oil should be stored in separate containers, meant for this purpose. Storage in inappropriate containers should be strictly avoided
- The used oil should be stored in a cool, shady place, away from smoking areas, sources of ignition and fire
- The storage area must have secondary containment to avoid any accidental spill to ground.
- There must be a legal agreement for the safe disposal or recycling of hazardous waste material between the vendor and the SPCB authorized hazardous waste recycling/disposal units
- Only SPCB authorized vendors should transport the used oil from one location to another with authorized vehicles approved for transporting such materials.
- The management must ensure that all the necessary records are maintained as per the Hazardous Waste (Management, Handling and Transboundary Movement) Rules.

#### 9.3 Measures to be taken in case of hazardous oil spill

The following measures must be taken in the event of a hazardous oil spill:

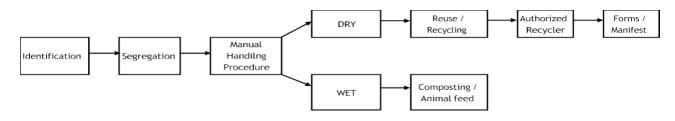
- Assess the spill and categorize as major (>=500 ml) or minor (<500 ml). For minor spill, the
  following remedial actions can be implemented by the site team. For major spills, external experts
  must be summoned with the help of EHS department</li>
- Inform the site representative and EHS coordinator immediately
- Cordon off the area (preferably using warning tape) and establish a no-smoking/fire zone in the vicinity



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- Use appropriate Personal Protective Equipment and ensure that oil does not enter storm water drains, rivers or run into the sea
- If the spill has occurred on soft ground, dig the contaminated earth and refill with fresh earth
- Bund the area of spill immediately using sand, cloth or other appropriate material, as per availability on site
- The used absorbent material (contaminated earth, cloth, cotton or sand) should be treated as hazardous waste and be disposed of in the applicable manner

#### 10. NON-HAZARDOUS WASTE



#### 10.1 Non-hazardous waste segregation:

In Manjushree Technopack Limited's office and project operations, significant quantities of non-hazardous waste are also generated. This waste consists of metal body parts of luminaries, plastic parts, broken glass, wires, paper, wood, food, cloth etc.

#### 10.2 Collection, Transportation, Storage, and Disposal of non-hazardous waste:

The following procedure has been extracted from regulatory requirements, national and state level guidelines and industry best practices. The following steps must be followed:

- At the assembly point where the replacement of lights is taking place, there must be separate and
  designated storage boxes for collecting non-hazardous waste generated during the replacement
  process. Non-hazardous waste should not be mixed with the hazardous waste generated at the site.
- The color of the boxes for storing hazardous and non-hazardous waste must be different, and workers must be aware of how to store the replaced items in the correct boxes.
- While transporting old bulbs and lighting materials from the assembly points to the warehouse, it must be stored separately for the hazardous materials to avoid the segregation at the warehouse.
- At the warehouse there must be a designated area for storing non-hazardous materials with proper labeling and lighting.
- There must be adequate PPEs provided for the workers engaged in the collection, storage, loading and unloading work to prevent injuries from the broken glass pieces or sharp objects present in the waste.
- There must be a legal agreement for the safe disposal or recycling of waste material between the vendor and the PCB authorized hazardous waste recycling/disposal units.
- It should be ensured by the EHS coordinator and labor contractor that no waste is being disposed of at the assembly point. Entire waste generated at the site must be brought back to the warehouse and then sent for recycling or disposal via approved vendors.
- At MTL, we use reuse cartoon boxes instead of cardboard boxes to deliver the finished goods to the customers.



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# 11. MONITORING AND REVIEW

- Internal Audits: Conduct periodic audits to assess compliance with waste management procedures.
- Continuous Improvement: Review and update the waste management policy and procedures based on audit findings and regulatory changes. Certain measures are followed by the R&D team to enhance the process to reduce the waste.

# 12. ROLES AND RESPONSIBILITIES FOR WASTE MANAGEMENT

S.No	Ownership	Responsibility	
1	HSE department	Ensure that all EHS requirements are implemented at the site.  Ensure that all the workers are using PPEs and following SOPs.  Ensure that no waste is being disposed of in an unauthorized manner  Monitor the waste disposal methods at office locations and various sites on a periodic basis  Compile the observations and non-compliances and report to project teams for corrective action	
2	Project teams	Communicate the SOP to all vendors and their entire supply chain Conduct announced and unannounced visits to waste segregation and collection points to understand noncompliances Report anomalies to the EHS department immediately Take responsibility for submission of monitoring reports on a regular basis to the EHS department and responsibility of facilitating the implementation of corrective actions	
3	Vendor	Follow the SOP and communicate it to its entire supply chain Ensure the safe storage and disposal of hazardous waste material.  Must provide safe and designated space in the warehouse for the storage of waste materials. We must ensure that all the EHS requirements are implemented throughout the process.  Must have a legal agreement with the PCB authorized waste handling unit.  Prepare periodic monitoring reports as per the prescribed format. Take primary responsibility of the corrective action and report back to the project team and EHS department Participate in the announced and unannounced reviews and provide all information sought	
4	Labor Contractor	Ensure that all the workers are following SOP and report non- compliance immediately to the vendor	
5	Employee/ Laborer/ Worker/	Follow the SOP and report non-compliance to the vendor/ EHS department	



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#### 13. DOCUMENTS TO BE MAINTAINED

SPCB authorization for Hazardous Waste Generation, storage, & disposal

- Total quantity of waste stored in the warehouse on each day and the percentage of waste sent for reuse, recycling and disposal, categorized as per type of waste
- Records of the work permit issued by the EHS coordinator issued at the site
- Manifest (Form-13) of disposed hazardous waste
- Annual return (Form-iv) to SPCB by 30th June each year
- Half-yearly return in Form VIII to the SPCB
- E-waste generation record in Form 2
- Agreement with the PCB authorized hazardous waste recycling/ reuse/ disposing unit
- Records of the injuries to the workers during the waste segregation, storage, loading and unloading process.

#### 14. COMMENT AND REVIEW

Manjushree Technopack commits to support and implementing this Waste Policy. This policy shall be reviewed at least once a year or when there are any changes.

REVIEWED BY	APPROVED BY	DATE	CHANGES MADE
Abilaash. P (DY. MGR EHS)	Kannan B (GM-EHS)	03/01/2024	No changes