Waste Management Procedure
HSE Management System

PTCL Group

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1. Purpose

The purpose of this procedure is to establish and maintain a system by which all types of waste generated at PTCL Group can be managed effectively. This procedure will assist in specifying safe and environmentally sound practices and establishing minimum requirements that must be followed for collection, transportation, handling, storage, and safe disposal of both non-hazardous, hazardous, and inert wastes etc.

Objectives of waste management procedure are to:

- avoid generation of waste.
- ensure that Good National & International Industrial Practices (GIIPs) are adopted to manage the waste.
- alignment with HSE & Sustainability polices as well as environmental objectives and targets.
- avoid financial and legal liabilities.
- reduce costs through integration of economically viable environmental measures.

2. Background

Waste is generated from various activities at different locations across PTCL Group. The type of waste generated depends upon the nature of operations and activities at a particular location or site. The categories include (but are not limited to), biodegradable and non-biodegradable, hazardous and non-hazardous organic, solid and effluents. It is the responsibility of the respective functions to protect human health and the environment by ensuring compliance with the applicable regulatory requirements. *(Ref: HSE Policy & Sustainability Policies).*

3. Scope

This procedure applies to all PTCL Group personnel, contractor personnel, visitors, or community and OSPs (Outsource Service Providers) that may interact with or be affected by any aspect of company activities; all, operations, facilities including PTCL healthcare facilities, exchanges, BTS, MSCs, equipment, vehicles and third-party contractors/suppliers working within PTCL Group jurisdiction, where waste in any form is generated, collected, segregated, transferred from, transported to, handled, temporarily stored, or disposed of. The scope of this waste management is the same as defined in HSE Policy & Sustainability Policies.

4. Requirements

Following rules and other regulatory requirements are considered in developing the procedure:

a) Environmental Management System ISO 14001:2015
b) Occupational Health & Safety Management System ISO 45001:2018
c) Quality Management System ISO 9001:2015
d) The Pakistan Environmental Protection Act, 1997
e) National Hazardous Waste Management Policy, 2022
f) IEE & EIA Regulation 2000
g) NEQS Rules 2001
h) The Hazardous Substances Rules, 2014
i) Punjab Hazardous Substances Rules 2018
j) Environmental Tribunal Rules, 1999
k) IFC Performance Standard 3: Resource Efficiency and Pollution Prevention
l) Lenders' requirements
m) Pakistan Electric and Telecommunication Safety Code 2014
n) PTA Environmental Obligations Regulatory Framework
o) Internationally accepted best practices
p) e& Group requirements (if any)

5. Definitions/Terms

5.1 **E-Waste:** Electronic Waste (e-waste), is a generic term used to describe all types of old, end-of-life or discarded electronic equipments, e.g. nickel-cadmium batteries and printed circuit boards from computer and other electronic equipment as well as backup power batteries, CDs, printer toners & cartridges etc.

5.2 **Waste[1]:** Unwanted or unusable material that is to be discarded. As per Global Reporting Initiation (GRI-306), waste is defined as anything that the holder discards, intends to discard, or is required to discard.

Basel Convention defines Wastes as "substances or objects which are disposed of, are intended to be disposed of, or are required to be disposed of by the provisions of the law". Waste can be broadly classified into non-hazardous, and hazardous waste streams.

Clause 2a National definition of waste - According to Pakistan Environmental Protection Act - 1997, "waste" means any substance or object or material which has been, is being or is intended to be, discarded or disposed of, and includes liquid waste, solid waste, waste gases, suspended waste, industrial waste, agricultural waste, radioactive and nuclear waste, mist, animal waste, electronic waste, municipal waste, hospital waste, pharmaceutical waste, plastic and polythene waste and residues from the incineration of all types of waste.

5.3 **Universal waste:** are hazardous wastes that are widely produced by many different types of businesses. Universal wastes include Paint, Vehicle and Equipment Fluids, Batteries (all types), Household Hazardous Wastes, Small appliances, regulated electronic goods televisions, computers, and other electronic devices as well as batteries, fluorescent lamps, mercury thermostats etc.

5.4 **Waste Management:** Administration of activities that provide for the collection, segregation, storage, transportation, transfer, processing, treatment, reuse (recycle) and disposal of waste.

5.5 **Waste Minimization:** Includes reducing waste before it is even generated and environmentally sound recycling.

5.6 **WEEE-Waste:** Waste Electrical and Electronic Equipment (WEEE-waste), is a generic term used to describe all types of old, end-of-life or discarded electronic equipment's, e.g. nickel-cadmium batteries and printed circuit boards from computer and other electronic equipment as well as backup power batteries.

5.7 **5Rs:** The 5Rs are Refuse, Reduce, Reuse, Repurpose and Recycle.

5.8 **Anaerobic Digestion:** Series of biological processes in which microorganisms break down biodegradable material in the absence of oxygen. the process to treat biodegradable waste and sewage sludge. As part of an integrated waste management system, anaerobic digestion reduces the emission of landfill gas into the atmosphere.

5.9 **Clinical Waste**: Normally refers to waste produced from health care facilities including surgical items, swabs, pharmaceuticals, blood, body parts, wound dressing materials, needles, and syringes.

5.10 **Disposal:** Any operation which may lead to resource recovery, recycling, reclamation, direct re-use, or alternative uses (Basel Convention).

5.11 **Hazardous Waste:** Waste that has any of the following properties - ignitability, corrosivity, reactivity or toxicity. Also included in this category are nuclear waste, clinical waste, and electronic waste.

5.12 **Incineration:** The controlled combustion of waste to reduce its volume or toxicity.

5.13 **Organic Waste:** Any material that is biodegradable and comes from either a plant or an animal. such as food, garden and lawn clippings or timber.

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[1] Note 1: Waste can be defined according to the national legislation at the point of generation.
Note 2: A holder can be the reporting organization, an entity in the organization's value chain upstream or downstream (e.g., supplier or consumer), or a waste management organization, among others.

5.14 **Liquid Waste:** In a facility may include grease trap waste and used lubricating oils. It also includes liquid waste generated from business operations or processes, other untreated effluent that is normally discarded in sewer.

5.15 **Municipal Waste:** Is generated because of the ordinary daily activities. It generally comprises of garbage and rubbish (such as bottles, cans, clothing, compost, disposables, food packaging, food scraps, newspapers and magazines, and yard trimmings).

5.16 **SDS (Safety Data Sheet):** Formal document containing information about the characteristics and actual or potential hazards of a substance. All types of hazardous material must be handled, transported, stored, and disposed of as per SDS.

5.17 **PPE:** Personal Protective Equipment.

5.18 **Pyrolysis:** Thermochemical decomposition of organic material at elevated temperatures in the absence of oxygen (or any halogen). It involves the simultaneous change of chemical composition and physical phase and is irreversible.

5.19 **Landfill:** Containing impervious barriers to prevent the migration of contaminants to the surrounding environment.

6. Waste Management team

Waste Manage team comprises of:

- Building Owner
- Procurement Representative
- Functional representative (PE, Fleet, BO, Technology)
- Vendors scoping outsourced operations.

7. Roles & Responsibilities

7.1 Management Responsibility

Management shall take up the leading role for the implementation of the effective waste management program. Personnel responsible should be identified, required resources should be allocated and SMART objectives shall be defined. Waste management plan must be shared with the functions and information about the program shall be communicated to all employees to raise awareness and promote participation at every level. (Ref: PTCL Sustainability Policy)

7.2 Corporate HSE & Sustainability

- Shall ensure that the waste management procedure is prepared and disseminated across PTCL Group.
- Shall ensure that the procedure is implemented through a system of audits.
- In coordination with Learning & Development shall ensure that awareness and training programs are planned and executed for effective waste management and disposal.
- To Ensure the effective monitoring and continual improvement by adherence to HSE Internal Audit Procedures.

7.3 Building Owners/Functions

- Ensure employees are aware of appropriate waste management practices in their work area(s).
- Segregate the waste at the source that generates it.
- d from their areas and placed in designated area of waste storage.
- Shall ensure appropriate allocation of resources to enable the implementation of the Waste Management Procedure.

- Shall centrally manage through Procurement for disposal of hazardous waste through PEPA's approved waste management contractors.
- Shall ensure that relevant staff are trained in dealing with waste material, especially hazardous waste.
- Shall ensure that function's specific customized procedure is prepared in line with Corporate HSE Waste Management Procedure.
- Shall ensure that relevant staff have attended training on waste management.
- Shall be responsible for managing and disposing waste as specified in this procedure and in accordance with legislative requirements.
- Shall ensure that inventory of waste (both hazardous and non-hazardous) disposal is maintained as per ***Annexure-2 Waste Inventory Record Form PTCL-WM-24-F02***
- Shall ensure to segregate and label waste before disposal and keep tracking records.
- Shall ensure that hazardous waste is safely disposed of through PEPA's third party contractors.
- Shall get waste record including disposal certificate from third party contractor in accordance with applicable legislation.
- Shall ensure that records of waste (hazardous and non-hazardous) disposal are shared with Corporate HSE on a Quarterly basis.
- Keep records of Waste Receipts from waste collection / management vendor/contractor.
- Analyse records of waste quantities removed from site/facility.
- Provide guidance and assistance where required in appropriate waste management processes.
- Shall maintain complete record of waste disposal for minimum three years.

7.4 Zonal HSE Heads

- Zonal HSE head to provide the advice and awareness on Waste Management SOP
- As a facilitator provide support and share the EPA's requirements with respective zone/regions upon request.
- Have spot checks, if required do inspections and in case of non-compliance report the same and to take-up with stakeholders for corrective/preventive actions.
- Will conduct the annual audit and covered the waste management aspects (Ref: HSE Internal Audit SOP)

7.5 Waste Generation

- Ensures that waste generated is sorted at source and placed into the appropriately color-coded labelled waste container.
- Co-operating with other responsible persons in ensuring the effective implementation of the waste management SOP.

7.6 Waste Collection

- Handle, collect, treat, and dispose of all hazardous or non-hazardous waste in a safe and environmentally acceptable manner. including quantification of volumes of waste handled
- Waste receivers (within the organization) must define the designated segregated storage areas for non-hazardous and non-hazardous waste and must ensure the compliance of this waste management procedure.
- Waste receivers (outside the organization/service providers) must collect the waste from designated storage, and waste must be handled, transported with waste segregation (hazardous and non-hazardous) as per PEPA's requirements.
- External waste receiver/service provider must have valid NOC from PEPA.

7.7 Procurement Representative

- Managing Waste Contracts and include all clauses about proper handling of waste and evidence to disposal record.
- Ensuring that Waste Contractors have the valid NOC from PEPA with the type of waste management and disposed- off, and a copy of the approval are obtained and maintained.
- Alignment of existing and new contracts with the waste contracts in place to include waste materials associated with the products or services being sourced.
  Due diligence on HSE & Sustainability must be completed before service providers are on-board.

7.8 All Employees

- Minimise the generation of waste.
- Follow the waste hierarchy principles as outlined in this SOP.
- Disposed-off waste in appropriate bins/storage locations.
- Report related incidents on HSE portal/ hotline.

7.9 Service Providers

- Shall ensure compliance with the requirements of applicable laws and PTCL's procedures.
- Shall develop site specific plan prior to performing waste handling, storage, transportation, or disposal.
- Share Due Diligence report bi-annually respective departments.
- Share disposal certificate of collected waste should ensure the disposal as per PEPA's requirements must have valid NOC from PEPA.
- Shall refer to contractual agreements related to HSE including the waste management, waste management procedure and site-specific plan for guidance.
- Shall ensure that waste is managed in consultation with the site/functions/HSE representative.
- Maintain auditable records and share with the site/functional HSE representative on quarterly basis and overall will be assessed in annual HSE audit.
- Must ensure that their workforce is aware of the PTCL HSE & Sustainability requirements, compliance must be ensured at all levels.

8. Types of Waste

8.1 Non-Hazardous Waste

a) **Organic and domestic waste**: Such as food, garden, and lawn clippings. It can also include animal and plant based material and degradable carbon such as paper, cartons, cardboard, and timber. Disposal of such waste normally presents little difficulty, and it can often be routed to municipal recycling or disposal facilities on a frequent basis.

b) **Scrap Material**: Such as metal scrap, glass, or wood scraps and empty containers (except those previously used to contain hazardous materials which should, in principle be managed as a hazardous waste); and residual waste from industrial operations, such as r slag, etc.

c) The main types of wastewaters are **Greywater –** from showers, baths, hand basins, washing machines, laundry troughs and kitchens. **Blackwater –** for example, toilet waste. **Sewage –** a combination of greywater, blackwater and trade waste. **Industrial wastewater –** includes all wastewater waste except sewage. All non-hazardous liquid waste is disposed-off through sinks, showers, and toilets. These liquids are usually mentioned as wastewater. The wastewater (gray water & black water) should be disposed into septic tanks or absorbed wells.

8.2 Inert Waste

Inert waste is waste which is neither chemically or biologically reactive, and nor decomposes. Examples include sand and concrete. This can be reused by construction contractors in ongoing projects and has relevance to landfills as it typically requires lower disposal fees than biodegradable waste or hazardous waste.

8.3 Hazardous Waste

Hazardous waste shares the properties of a hazardous material (e.g. ignitability, corrosivity, reactivity or toxicity) or other physical, chemical, or biological characteristics that may pose a potential risk to human health or the environment & aquatic environment if improperly managed. When a hazardous material is no longer usable for its original purpose and is intended for disposal, but still has hazardous properties, it is considered hazardous waste.

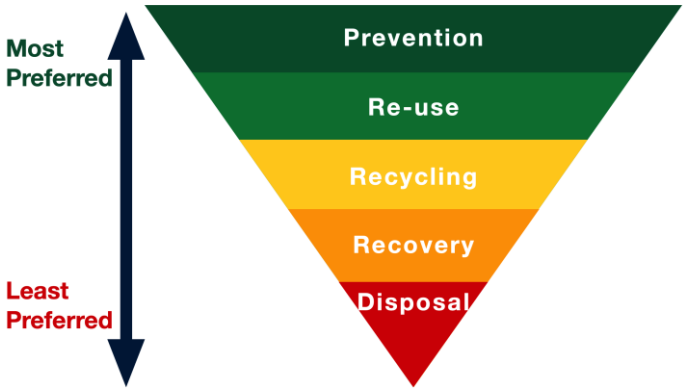
a) Waste may also be defined hazardous by local regulations or international conventions, based on the origin of waste and its inclusion on hazardous waste lists, or based on its characteristics.
b) Designated storage areas must be defined by respective building owners with segregation & standard labeling of hazardous and non-hazardous waste, with arrangements as per SDS as per PEPA's requirements.
c) Hazardous waste would include oil pads, genset filters, battery acids, oil filters after an oil change, shall be marked as hazardous waste and kept in storage areas away from operating machinery and working areas until they are ready to be removed from the facility for ultimate disposal.
d) All types of Universal Waste including Paint, Vehicle and Equipment Fluids, Batteries (all types), Household Hazardous Wastes, Small appliances, regulated electronic goods televisions, computers, and other electronic devices as well as batteries, fluorescent lamps, mercury thermostats etc. should be handled, stored, and complied as per the requirements of PEPA.
e) All types of WEEE (Waste Electrical and Electronic Equipment) e.g. nickel-cadmium batteries and printed circuit boards from computer and other electronic equipment as well as backup power batteries must be treated as hazardous waste and should be handled, stored, transported and disposed-off as per PEPA's requirements and only PEPA's approved service provider must be engaged for WEEE waste disposal. Service provider must have a valid PEPA' s NOC with the type of waste.
f) Clinical Waste would include infectious waste, pathological waste, chemical waste, pharmaceutical waste, cytotoxic waste.

9. Waste Management

Waste management is the process linked to waste minimization, generation, collection, segregation, transportation, recycling or processing, recovery, and final disposal. Waste management also aids in entailing the safe and efficient manner of disposal of materials to avoid their adverse effect over human, health, and environment. Useful resources can also be recovered from waste management methods. Facilities that generate waste should characterize their waste according to composition, source, types of waste produced, generation rates, or according to local regulatory requirements.

9.1 Waste Hierarchy

The waste hierarchy ranks waste management options according to the best environmental outcome taking into consideration the lifecycle of the material. In its simplest form, the waste hierarchy gives top priority to preventing waste. When waste is created, it gives priority to preparing it for reuse, then recycling, then other recovery, and last of all disposals (i.e. landfill).



9.1.1 Refuse/Prevention

The top-level option is "prevention" or "avoidance".
This waste is prevented in the most obvious way: by avoiding its production or purchase entirely. For example, plastic carrier bags can be prevented from going to a landfill by using long-life bags, such as canvas bags.

9.1.2 Reduce

Reducing waste is self-explanatory and relies on making a process more efficient. This can be achieved through:

a) Material elimination
b) Inventory control and management
c) Material substitution
d) Conservation of natural resources
e) Process modification
f) Improved housekeeping
g) Purchase of materials in bulk
h) Use of reusable rather than disposable containers
i) Avoiding purchase of goods with excessive packaging
j) Avoiding wastage of materials
k) Better handling and storage practices to prevent damage.

9.1.3 Re-Use

Wherever possible, items should be reused instead of discarding; examples include:

a) Reuse of containers such as bins and barrels of non-hazardous substances. (Empty containers that previously contained hazardous substance are counted as hazardous waste
b) Recovery and reuse of refrigerants during maintenance.
c) Handle and store packaging material so that it can be reused either at site or by others if sold.
d) Materials that can be reused should be segregated from the waste stream, cleaned, and repaired prior to storage for future reuse.

9.1.4 Recycle

Recycling is defined as putting energy into a waste item to convert it to something else entirely, sometimes with lower grade and value. It saves on processing or extracting of raw materials; hence it is useful when materials are limited, and reuse becomes difficult. The materials that can be recycled are:

a) Paper, cardboard, aluminum cans, wood, glass/plastic bottles
b) Scrap material such as metals, wood
c) Waste oil
d) Components of e-waste

9.1.5 Recover

Energy recovery from waste is the conversion of non-recyclable waste materials into usable heat, electricity, or fuel through a variety of processes, including combustion, gasification, pyrolysis, anaerobic digestion, and landfill gas recovery. This process is termed as a waste of energy.

9.1.6 Dispose

Waste disposal to landfill should only be considered when no option further up the hierarchy is possible. It is the least favored option because nothing can be taken back. Once something is in a secured landfill, there is no real harm the waste can do as it degrades naturally - although this can take thousands of years. However, environmental harm can be caused through release of greenhouse gases and toxins and their infiltration causing soil and underground water contamination if it is an open landfill.

9.2 Color Coding of Waste segregation

a. Green: Organic waste (food scraps, garden waste etc.)
b. Blue: Recyclable waste (paper, cardboard, plastics, metals etc.)
c. Yellow: Hazardous waste (chemicals, batteries, light bulbs etc.)
d. Red: Biomedical or infectious waste (used syringes, bandages, pathological waste etc.), Clinical and pharmaceutical waste (unused medicines, clinical materials etc.)
e. Black: General non-recyclable waste (soiled items, non-recyclable plastics etc.)
f. White: WEEE-waste (waste electrical and electronic equipment such electronic devices, appliances etc.)

9.3 Waste Inventory

The waste inventory provides comprehensive and up-to-date information on all waste materials that can be generated at a site. The first step in building an inventory would be to survey the facility and list all current and expected waste. Expected waste may include waste from an irregular activity or a new project being carried out soon.

The ***Annexure-2 Waste Inventory Record Form PTCL-WM-24-F02*** shall also include following information:

- Waste category (Hazardous / Non-Hazardous).
- Waste material (e.g., plastic, catalyst, paper, food etc.)
- Waste generation source.
- Waste quantity (this would be tentative and may vary from the actual quantity of waste generated).
- Disposal method

Separate sheets can be maintained for different types of materials. This can help in keeping the record forms updated with the current site situation. The list can be categorized as follows:

a) Recurring Materials
b) Unused Materials
c) Unknown Material

9.3.1 Recurring Materials

Include wastes that are normally generated on a recurring basis, such as the following:

a) Office paper, cardboard, plastic, metal, and glass.
b) Food waste from cafeteria/ Food and beverage containers.
c) Used oil and chemicals.
d) Waste is associated with heating and air conditioning systems and building maintenance.
e) Waste produced from operations.

9.3.2 Unusable Materials

Include each unused chemical or other unused material that may not be needed anymore. This could be due to one of the following reasons:

a) Expired shelf life.
b) Off specification for the process, it was intended for.
c) No longer needed due to process/site changes – resulting from a change in business products or material substitution.

9.3.3 Unknown Materials

Include anything that is unidentifiable or unknown present at the facility. Such types of materials could include unlabeled drums/containers or equipment. Precautions must be taken in case of unknown materials such as.

a) Open metal containers only with non-sparking tools in case contents are flammable. Don't smell unknown chemicals and take precautions to prevent contact with the eyes and skin. Additional PPEs including approved hand gloves, masks, goggles etc.
b) If the container or equipment is in poor condition, or damaged in any way, make necessary arrangements before moving or touching the container e.g. old transformers may contain transformer oil and contamination of soil may occur due to its leakage.

9.4 Monitoring & Reporting

Any event related to mishandling of and/or non-compliance to this procedure shall be reported as an Incident and shall be reported under subcategory Environment (please refer to ***Incident Reporting and Investigation Procedure- HSE_PR_01v02***). All the waste generated shall be segregated, quantified, and recorded prior to storage and disposal. The quantity waste disposal shall be reported on HSE meetings.

9.5 Waste Segregation

Wide range of wastes are generated by the activities under and across PTCL Group. These wastes required a proper segregation with the type of waste, all temporary segregated waste must be collected at designated areas identified by Building Owners/Sites. All types of waste must be properly identified/labelled at designated storage locations. Handling, transportation, storage and disposed-off of Hazardous Material must be as per SDS (Safety Data Sheets)

9.6 Waste Collection

Collection of waste should be done as per color coding defined in the **"9.2 Color Coding of Waste."**
By effectively segregating waste types on site, Respective functions can:

a) Avoid contaminating "clean" waste with contaminated or hazardous materials.
b) Minimize the quantities (and hence cost) of waste requiring specialized disposal.
c) Ensure that the waste disposal option is suited to the waste type.
d) Minimize the potential for safety incidents or environmental damage.
e) A uniformity of segregation can be achieved across PTCL Group.
f) Frequency of waste removal/ collection?
g) Provision of sufficient valid firefighting equipments.

9.7 Waste Packing & Labeling

9.7.1 Non-Hazardous Waste

Non-Hazardous wastes should be packed (where necessary) and labelled according to the waste category.

9.7.2 Hazardous Waste

For hazardous substance, container shall be of such size, material, and design as to ensure that:

a) It can be safely stored, transported, and used without leakage.
b) The hazardous substance therein does not deteriorate in a manner as to render it more likely to cause, directly or in combination with other substances, an adverse environmental effect.
c) Proper PPEs are used while handling hazardous waste. Additionally, HAZMAT suits.

Following information shall be printed conspicuously, legibly, and indelibly on every container:

a) Name of the hazardous substance.
b) Name, address, and license number of the licensee.
c) Net contents (volume or weight).
d) Date of manufacture and date of expiry, if any.
e) A warning statement comprising.
    i. The word **"DANGER!"** in red on a contrasting background.
    ii. A picture of skull and crossbones.
    iii. Pertinent instructions for use, storage and handling and safety precautions relating thereto.
f) Labelling would be done on both if a hazardous substance has an inner container as well as an outer container.
g) Basic instructions mentioning immediate steps to be taken in case of any accident or emergency, preferably in local language, must be attached.

10. Waste Handling, Storage and Transportation

All respective building/facility owners must follow the outlines of handling and storage of waste at their respective sites and define a period to retain waste depending upon the nature, quantity, and frequency of generation of waste as per records.

10.1 Waste Handling

10.1.1 Non-Hazardous Waste

Different types of waste demand different types of handling. The general waste containers containing non-hazardous waste should be handled with care to avoid accidents, value loss of resalable items and mishandling.

10.1.2 Hazardous Waste

Special precautions must be taken when handling hazardous waste. Only authorized and trained staff with appropriate PPEs (as per relevant SDS) should be allowed to handle the waste. A list of hazardous waste material must be maintained by building owners and respective functions the same information & knowledge should be shared with relevant staff. SDS must be displayed at hazardous substance storage areas and handling of each must be carried out accordingly. Clinical Waste is also a type of hazardous waste and must be handled with care without coming in direct contact with such waste contents.

10.2 Permanent/Temporary Storage

a) All scrap/waste that is pending collection by team/third party contractors must be stored in a safe and secure manner with proper labelling on each waste.
b) All hazardous waste must be stored under the shade/in covered area.
c) Mixing of waste must be avoided at all costs. Waste segregation must be strictly followed such that recyclable waste (i.e. paper, plastic, empty glass bottles, tins, metals scrap etc.) from other waste are stored separately.
d) All waste should be stored in a manner that prevents spillage or scattering of waste.
e) Wherever possible, access to waste containers will be restricted to the designated employees, PEPA's approved waste management service provider must be engaged.
f) Ensure that only appropriate general solid waste is added to the solid waste container. Certain wastes such as hazardous wastes, appliances, fluorescent lamps, pesticides, liquid waste etc. may not be disposed of in solid waste containers.
g) Where possible, boxes and other containers should be flattened to save space inside containers.
h) All waste containers and bins should have lids, and these should always be kept closed to minimize odor and prevent waste being blown out.
i) The containers should be watertight, with the use of lids being essential during periods of rainfall.
j) Lubricant waste can be recycled, therefore care should be taken for its storage and handling, so that it does not get contaminated or mixed with water or other materials e.g. paper, cardboard etc. Filled barrels should be stored with lid closed. Lubricants should be stored separately according to their type/ specification.
k) The premises in which a hazardous substance is generated, collected, consigned, treated, disposed of, stored or handled shall comply with the conditions specified in Schedule-IV of Hazardous Substances Rules, 2014.

10.3 Eye Wash Stations

a) OSHA standard 29 CFR 1910.151(c) states "Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use."
b) Provision of eye wash station at hazardous storage areas, an eye wash station should be located within 10 seconds or roughly 55 feet of hazardous areas, ensuring unobstructed and immediate access for individuals exposed to harmful substances. The station must be on the same level as the hazard, without doors or stairs in the direct path to facilitate quick and easy access.
c) Installed and portable emergency eyewash units must be capable of delivering not less than 0.4 gallons (1.5L) of clean water per minute. Portable eyewash units must be capable of delivering

water continuously for at least 15 minutes. The water must be readily available to wash both eyes simultaneously.

d) Use the emergency eye wash immediately if your eyes are exposed to a hazardous chemical. The first few seconds after exposure to a hazardous chemical (especially a corrosive chemical) are critical. Delaying treatment, even for a few seconds, may result in irreparable eye damage.

10.4 Secondary Containment (Liquids)

a) All waste receptacles containing hazardous liquid waste materials shall be stored in a suitable spill containment facility.

b) Where possible, secondary containment should have a capacity of 1.1 times that of the original stored material. Receptacles should be stored undercover to prevent the ingress of storm water and the deterioration of the waste receptacle.

10.5 Transport

10.5.1 Non-Hazardous Waste

In most cases, transport for disposal of non-hazardous biodegradable waste will be to a designated composting or municipal facility and the non-biodegradable waste that has re-saleable value will go for recycling. It is important to segregate each type of waste at designated locations of buildings/facility, so the value of recyclables is not compromised.

10.5.2Hazardous Waste

Transportation of hazardous substance shall be carried out as per the requirements of PEPA (Pakistan Environmental Protection Authority), and the Service Providers permit shall have the following details:

a) Name and address of the person from whom the hazardous substance is to be collected.

b) Name and address of the person to whom the hazardous substance is to be delivered.

c) Quantity (weight) of hazardous substances to be transported.

d) Mode of transport, including full particulars and specifications of the motor vehicles or other conveyance.

e) Route to be adopted between the origin and destination.

f) Location and method of disposal to be defined.

g) Date and time of proposed transportation.

h) Marking and signs as per SDS.

10.6 Waste Disposal

10.6.1 Non-Hazardous Waste

In case of non-hazardous waste, where source reduction, reuse and recycling/recovery options have been fully explored and cannot be implemented feasibly, disposal is to be sought out as the last resort. Disposal of waste should be carried out at proper municipal facility and the destination of waste disposal must be recorded.

10.6.2 Hazardous Waste

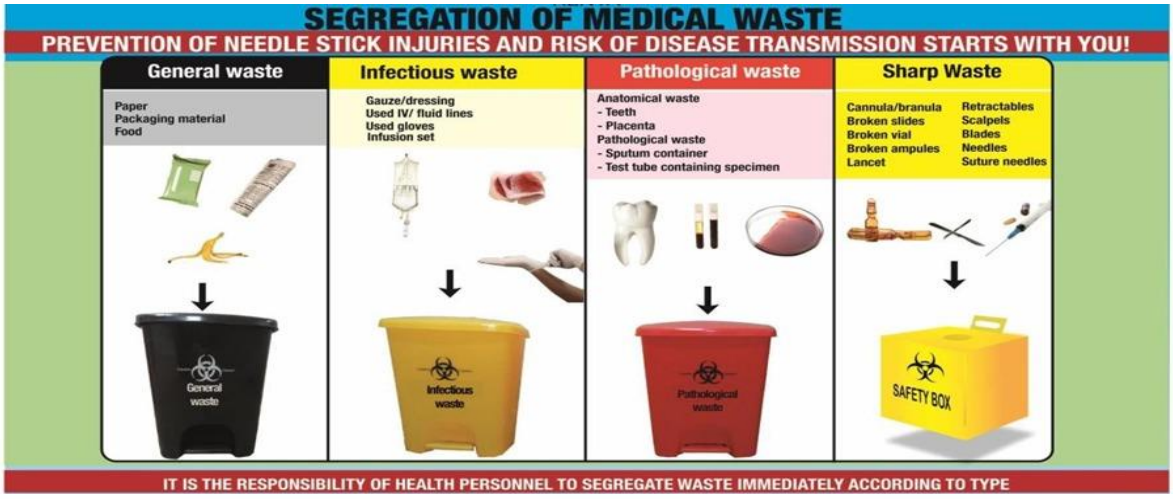
Hazardous waste cannot be discharged into the environment to “save money,” as a matter of “convenience,” or due to carelessness in planning, preparation, operations, or design. Disposal of hazardous waste substances must be carried out through PEPA’s service providers (valid NOC) and as per the best practices of disposal for each hazardous substance.

10.6.3 Specific Waste Management Functional SOPs

The specific waste management functional SOPs need to be developed by respective functions; functional SOPs shall be aligned with this Waste Management procedure.

11. Special Waste (Clinical Waste[2])

Below mentioned information shall be disseminated in medical facilities managed by PTCL Group.

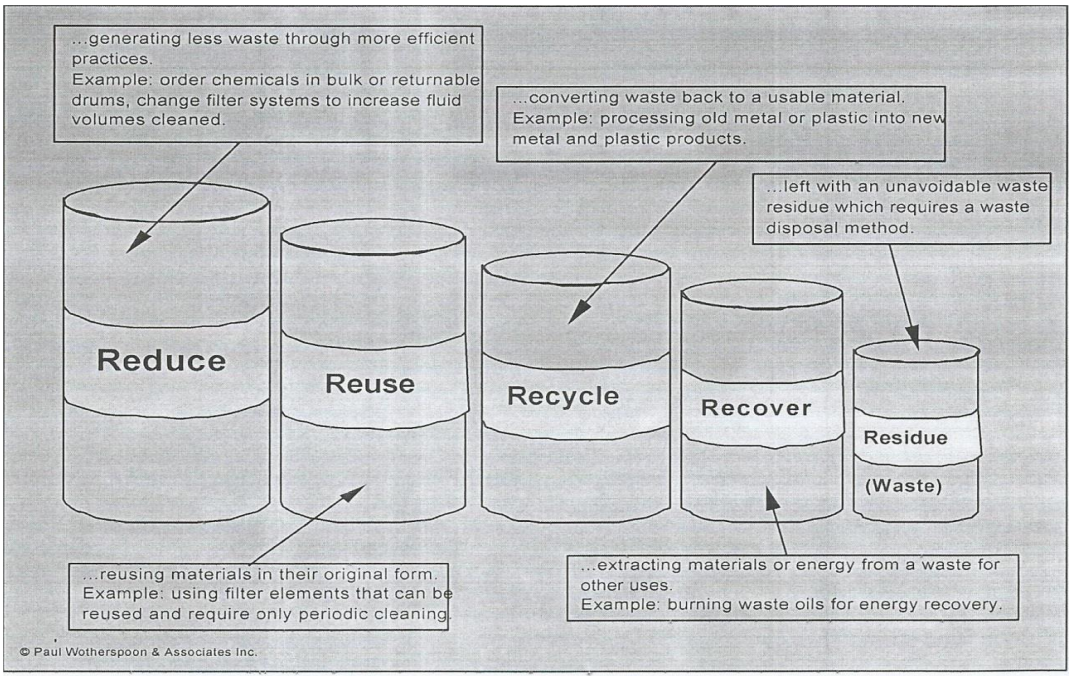


Category	Examples of Wastes	Color of Bin and Liner	Marking
General or non-infectious	Paper, packaging materials, plastic bottles, food, cartons	Black	No recommended marking
Infectious	Gloves, dressings, blood, body fluids, used specimen containers	Yellow –pedal action	
Highly infectious or anatomical/ pathological	Laboratory specimens and containers with biological agents, anatomical waste, pathological waste	Red- pedal act	
Chemical	Formaldehyde, batteries, photographic chemicals, solvents, organic chemicals, inorganic chemicals	Brown	Marking will vary with classification of the chemical
Radioactive	Any solid, liquid, or pathological waste contaminated with radioactive isotopes of any kind	Yellow	 Radioactive symbol
Genotoxic/ Cytotoxic	All drug administrative equipment (e.g. needles, syringes, drip sets), gowns and bodily fluid/ waste from patients undergoing cytotoxic drug therapy	Purple	
Sharps Box (Safety Box)	Needles, Syringes, broken vials	White/yellow safety boxes (WHO Approved)	

[2] Note: This color coding is only referred to Special Waste and shall be comprehend in addition to clause 9.2.

12. Waste Minimization provides:

- Savings in raw material costs.
- A reduction in environmental implications (risk).
- Savings in time and energy.
- Lower waste treatment and disposal costs.
- Reduce liabilities.
- Improved corporate image.
- Less employee exposure to hazardous materials.



This diagram represents the "5Rs". Moving from left to right across the barrels, the application of each of the "R" theoretically reduces the quantity of waste that may require ultimate disposal at the right of the diagram (and increase the cost of handling).

13. Training

All employees must receive awareness training with the support of learning. Functional HSE in coordination with the L & D team shall lead in awareness programs. Training contents must include:

a) Descriptions of all solid waste streams.
b) General techniques for waste management.
c) Disposal Techniques
d) Developing Waste Management Plan
e) Complying with Legal and other requirements

Employees whose work involves solid waste handling, such as maintenance and custodial staff in janitorial, will also be trained in safe handling, storage, and disposal techniques.

14. Documentation and Record Keeping

a) The quantity of waste generated must be recorded on ***Annexure-2 Waste Inventory Record Form PTCL-WM-24-F02*** respective building owners/functions.

b) Record of pictorial and documented evidence of hazardous waste disposal must be maintained with date and time marked.

c) A copy of the PEPA's valid NOC be obtained be obtained by service provider, and hazardous waste disposal documentation must be retained for a minimum of three (03) years.

15. Emergency Response Plan

All emergencies during handling, storage, and transportation shall be followed as per the functional specific emergency response plan/procedure and respective SDS. Ref. ***Emergency Response Procedure for PTCL Group HSE_PR_09v02***

16. Communication and Awareness of the Process

Waste management SOP shall be communicated to all PTCL Group employees through digital media. Workplace advisories shall be the main source of communication. Awareness of the SOP will be created through People Care, TBTs on various groups on digital platform of PTCL Group Workplace. Relevant labelling will be displayed on bins.

Janitorial staff will be given special awareness and training on waste management by PE-HSE.

17. Monitoring and Review

Waste management practices shall be monitored regularly by the Group Director HSE & Sustainability. Procedure shall be reviewed after every 2 years depending upon the effectiveness and outcome of the process activity.

18. Forms/Documents

a) Annexure-1 PTCL-WM-24-F01: Material/Waste Characterization Summary Sheet

b) Annexure-2 PTCL-WM-24-F02: Waste Inventory Record Form.

Annexure-1

PTCL-WM-24-F01: Material/Waste Characterization Summary Sheet	
1. Fiber 1. Corrugated Cardboard 2. Office Paper 3. Miscellaneous Paper 4. Other Mixed/Composite Paper	**5. Glass** 1. Glass Bottles 2. Containers 3. Composite Glass
2. Organic 1. Food 2. Boxboard/ Soiled Paper 3. Manures 4. Cooking Oil/Grease 5. Leaf and Yard Waste 6. Composite Organic	**6. Construction and Demolition** 1. Concrete /Asphalt 2. Lumber 3. Gypsum Board 4. Rocks and Soils 5. Remainder/Composite

3. Plastic: Containers, Bags and Products 1. Polyethylene terephthalate 2. High-density polyethylene 3. Polyvinyl chloride 4. Low-density polyethylene 5. Polypropylene 6. Polystyrene 7. Any combination of plastics 1 through 6.	**7. Hazardous** Class 1 - Explosives Class 2 - Gases Class 3 - Flammable and combustible liquids Class 4 - Flammable solids Class 5 - Oxidizing substances; organic peroxides Class 6 - Poisonous (toxic) and infectious Class 7 - Radioactive Materials Class 8 - Corrosives Class 9 - Miscellaneous products, substances
4. Metal 1. Iron/Steel 2. Tin/Steel / Aluminum Cans 3. Aluminum 4. Copper 5. Other Non-Ferrous 6. Remainder/Composite Metal	**8. Universal Waste** 1. Fluorescent Bulbs/Lamps 2. Paint 3. Vehicle and Equipment Fluids 4. Batteries (all types) 5. Household Hazardous Wastes 6. Small Appliances 7. Regulated Electronic Goods
9. Composite & Miscellaneous Materials 1. Textiles (such as clothing and blankets) 2. Bulky Appliances & non-regulated Electronic Devices 3. Bulky Furniture 4. Special Care Waste (Bio-medical)	5. Disposable Cups 6. Composite Packaging 7. Soiled plastic wrap and foil 8. Wood from old furniture or pallets etc. 9. End-of-Life Products

Annexure-2

	Waste Inventory Record Form			
PTCL-WM-24-F02	01	July 30, 2024	1 of 1	Corporate HSE
Document No.	Version	Date of Version	Page	Issuing department

☐Recurring Materials ☐Unused Materials

☐Unknown Material ☐Any

Other (Please specify)

Waste Category	Waste State	Waste Material	Waste Quantity	Source of Generation	Storage Location	SDS Available	Disposal Frequency	Disposal Through	Disposal Location	Disposal Date	Disposal Evidence	Remarks
H/NH	S/L/G		#/kg / m^3			Y/N	D/M/B/A	IM/Direct			Y/N (Attach)	

Location: ----------

DATE: ----------

HSE Representative: ----------

Vendor/Contractor: ----------

Department//Building Owner ----------