ELEMENT ENGINEERING LABORATORY

QUALITY, HEALTH, SAFETY, AND ENVIRONMENT SYSTEM

WASTE MANAGEMENT PROCEDURE

	NAME	SIGNATURE
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1. REVISION AND APPROVAL

Rev.	Date	Nature of Changes	Approved By
00	05 Aug 2025	Original issue.	AUTHORIZED OFFICER

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1. PURPOSE

This document aims to

- describe the way through which company manages the waste produced from its activities.
- ensure control over the waste generated within the company's work sites.
- ensure that consistent and environment friendly methods are adopted for disposal of waste.

2. SCOPE

This procedure is applicable to all the company work site and offices for collection and disposal of waste at ELEMENT ENGINEERING LABORATORY's premises.

3. RESPONSIBILITIES

Operations Manager, QHSE MR & Site Staff are responsible for implementation of this procedure.

4. PROCEDURE

For the purpose of Waste Management Procedure, the following two main categories of waste have been identified:

4.1 Hazardous waste

Hazardous waste will have one or more of the characteristics of ignitibility, corrosively, reactivity and toxicity. This includes waste such as:

- Chemical Waste Handling – Store all chemical reagents and solvents in clearly labeled, sealed containers to prevent spills or contamination.
- Used Oil Disposal – Collect and dispose of used oil from testing machinery through approved hazardous waste vendors.
- Contaminated Soil Samples – Isolate and dispose of any soil samples found to contain heavy metals or hydrocarbons using certified disposal methods.
- Expired Laboratory Chemicals – Regularly audit and safely dispose of expired or unused chemicals through licensed hazardous waste handlers.
- Personal Protective Equipment (PPE) Waste – Dispose of contaminated gloves, masks, and lab coats in designated hazardous waste bins.
- Wastewater from Testing Activities – Treat and dispose of wastewater generated during material testing (e.g., slump, compressive strength) as per environmental standards.
- Spill Response Materials – Dispose of absorbent pads, sand, or spill control materials used during chemical spills as hazardous waste.
- Labeling and Segregation – Clearly label all hazardous waste containers and segregate by type (chemical, oil, biological) in accordance with UAE regulations.

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- Temporary Storage Area – Maintain a secure, ventilated, and marked hazardous waste storage area separate from general waste.
- Documentation & Disposal Records – Maintain detailed logs and disposal manifests for all hazardous waste handed over to authorized vendors.

4.2 Non-Hazardous waste

The non-hazardous waste is a waste which does not have the characteristics of the hazardous waste such as:

- Paper Waste – Dispose of used test forms, drafts, and packaging paper in designated non-hazardous bins for general waste or recycling.
- Plastic Bottles and Containers – Collect and segregate cleaned plastic bottles from water, sample containers, or packaging materials.
- Cardboard and Packaging Material – Reuse or dispose of cardboard boxes and packaging used for equipment and samples in dry waste bins.
- Broken Sample Molds – Dispose of damaged or unusable plastic or metal molds as non-hazardous solid waste.
- Gloves and Labwear (non-contaminated) – Discard clean or lightly used PPE like gloves, caps, and lab coats that have not been exposed to chemicals.
- Soil Samples (non-contaminated) – Dispose of unused or excess clean soil samples in designated soil disposal areas or general bins.
- Construction Debris (non-hazardous) – Segregate and dispose of concrete chips, broken tiles, and bricks that do not contain harmful substances.
- General Office Waste – Dispose of regular waste from offices such as snack wrappers, used pens, and empty files in standard bins.
- Damaged Tools (non-contaminated) – Collect broken or dull tools that haven't been exposed to hazardous materials for recycling or landfill.
- Wooden Pallets and Crates – Reuse, return to suppliers, or dispose of wooden packaging materials in a designated dry waste area.

Waste Segregation and Storage

All wastes, hazardous and non-hazardous, must be segregated and stored in designated waste containers at the appropriate waste storage area at each work site. The waste containers must be clearly marked.

The waste must be so segregated and stored, as to prevent a contact or reaction which may result in the release of toxic or flammable gas, heat or pose any health, environmental pollution of fire hazard.

The following hazardous waste should not be mixed:

- Hazardous vs. Non-Hazardous: Always keep hazardous waste (e.g., chemicals, oils, NORM) isolated from non-hazardous waste (e.g., packaging materials, scrap metal).
- Liquid vs. Solid Waste: Liquid wastes (e.g., used oils, chemicals) should be stored in leak-proof containers away from solid waste.
- Recyclable vs. Non-Recyclable: Prioritize segregating recyclable materials like metals, plastics, and paper for proper recycling processes.

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- Chemical Segregation: Never mix incompatible chemicals, and ensure hazardous chemicals are stored according to their specific hazard classes.
- Food wastes and associated garbage, which is generated at site, which may carry disease or pests should be kept separate from garbage which does not contain such food wastes.

The waste storage containers must be of an appropriate type to ensure the safe storage waste while taking into account the above mentioned precautions.

A safe storage area must be designated while taking into account the possibility of:

- Flammable materials: Ensure the storage area is far from ignition sources.
- Structural integrity: Store heavy materials like concrete and steel in a way that prevents collapse or accidents.
- Fuel and oil leakage: Ensure the area is designed to capture leaks from stored vehicle parts or waste.
- Chemical spills: Ensure safe storage for drilling fluids and chemicals used in the digging process.

4.4 Disposal of Waste

The disposal of any waste shall be carried out in accordance with the Local & International guidelines and laws for Prevention of Pollution as well as any other International and National rules and regulations applicable to the Company's site and office.

Partner with certified hazardous waste disposal services to handle materials like PCBs, contaminated soils, batteries, and old electrical components.

Ensure compliance with local and international regulations for the handling and disposal of hazardous materials like PCBs and heavy metals.

The recyclable items must be suitably packed in separate containers and forwarded for disposition. An appropriate packaging must be used to ensure their safe transportation. When sent from the work site, the containers with recyclable must be clearly marked indicating:

- Work site where the waste originated
- Content inside the container

The QHSE MR will identify the recyclable waste at site. For example:

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- Paper and Office Stationery – Recycle printed paper, used notebooks, and paper files through authorized recycling vendors.
- Plastic Sample Containers – Clean and send used HDPE or PET sample bottles for plastic recycling.
- Cardboard Boxes – Flatten and recycle cardboard packaging from materials, equipment, and sample shipments.
- Metal Scrap – Collect and recycle steel, aluminum, or copper scrap from broken tools, test frames, and fixtures.
- Glass Sample Bottles – Rinse and recycle uncontaminated glass containers used in material or chemical storage.
- E-Waste (non-hazardous electronics) – Recycle old lab computers, cables, and non-functional digital equipment through e-waste programs.
- Plastic Bags and Film Wraps – Collect clean plastic wraps from equipment packaging and send them for recycling.
- Wooden Pallets – Reuse or return good-condition pallets, or send damaged ones to wood recyclers.
- Used Printer Cartridges – Return toner and ink cartridges to suppliers or designated recycling drop-off points.
- Aluminum Cans and Beverage Bottles – Collect clean drink containers from lab/office areas and route them to recycling bins.

Only Government approved and client accepted waste transporters and disposal contractor shall be used by ELEMENT ENGINEERING LABORATORY

4.5 Training

The QHSE MR must ensure that the personnel within office/worksite have sufficient training in all aspects of waste management.

The training must include:

- Types of waste
- Handling and disposal of garbage
- Operation of garbage processing equipment
- Applicable Regulations for handling and disposal of garbage

4.6 Waste Minimization

The QHSE MR shall prepare a quarterly summary of the company's waste.

Inventory and as far as practically possible identify the areas where:

- Waste is produced in significant quantities
- The generated waste is costly to dispose off
- Generated waste may pose a significant impact to the health of employees or damage to the environment.

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Where practically possible, the Operations Manager & Office/Site In charge will propose measures to minimize the quantities used and/or identify more environmental friendly methods of disposal of the waste. The waste transfer notes will be used to monitor as to how the waste has been disposed of.

5. RECORD

Waste Disposal Monthly Report	IMS-WM-F01

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WASTE DISPOSAL MONTHLY REPORT

Effective Date 05 Aug 2025	
Document Code: IMS-WM-F01	
Rev 00	Ref. No:00

Project/ Office: Element Engineering Laboratory

Date: 01Sept – 30 Sep 2026

	Item No.	Waste Type	Volume Produced (m³)	Held Onsite (m³)	OFFICE Disposed (m³)	OFFICE Reused (m³)	OFFICE Recycled (m³)	Disposal/ Recovery Location
Class I: Hazardous Waste*	I-1							
	I-2							
	I-3							
	I-4							
	I-5			NA				
	I-6							
	I-7							
	I-8							
	I-9							
	I-10							

	Item No.	Waste Type	Volume Produced (m³)	Held Onsite (m³)	OFFICE Disposed (m³)	OFFICE Reused (m³)	OFFICE Recycled (m³)	Disposal/ Recovery Location
Class II: Nonhazardous waste*	II-1	General office	0.600	—	0.600	—	—	Municipal Collection
	II-2	Paper & Cupboard	0.150	—	0.150	—	—	11
	II-3	Wash water	3.00	—	3.00	—	—	App. Drain
	II-4	Cloth & Used Consumable	0.05	—	0.05	—	—	Mun. Collection
	II-5							
	II-6							

	Item No.	Waste Type	Volume Produced (m³)	Held Onsite (m³)	OFFICE Disposed (m³)	OFFICE Reused (m³)	OFFICE Recycled (m³)	Disposal/ Recovery Location
Class III: Inert waste*	III-1	Concrete Cubes	1.10	0.0	1.10	—	—	Crusher
	III-2	Tested aggregate	0.60	—	—	0.60	—	Reused
	III-3	Soil sample	0.80	—	—	0.80	—	Reused
	III-4	Broken glass	0.01	—	—	0.01	—	Mun. Coll.
	III-5							
	III-6							
	III-7							
	III-8							
	III-9							

	Class I Total (m³)	Class II Total (m³)	Class III Total (m³)	Grand Total
Total Waste Produced		8.8	2.51	6.31
Total Waste Recovered and Recycled		—	1.41	1.41
Total Waste Held Onsite		—	—	—
Total Waste Disposed		3.8	1.10	4.9
Sub-Total				

Notes:

*	Classification from Waste Management Plan
**	Waste Number, if available
***	Volume of Batteries and Tyres need to be estimated
****	Excavated soil, construction waste & demolition wastes (bricks, concrete pieces, etc).

Waste Classes:

Class I- Hazardous waste (e.g. flammable, explosive, toxic)

Class II- Non Hazardous (e.g. scrap metal, wood, plastic, domestic/kitchen garbage)

Class III- Inert (waste that does not undergo any significant physical, biological, chemcial change such as glass, concrete, brick)

Prepared by:

Approved by:

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