

WASTE COLLECTION, SEGREGATION, TRANSFER AND TRACKING POLICY

EAD-EQ-PR-P-04

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I. POLICY AIM

I.1 Background

Over the last decades, Abu Dhabi Emirate's waste management system and its supporting infrastructure has grown opportunistically rather than systematically based on integrated planning. While the Emirate's waste management system has proved effective at collecting waste from where it has been generated and removing it out-of-sight, there are significant gaps in terms of segregation of the waste at source thereby making it difficult to achieve the reuse, recycle and resource recovery.

The Environmental Agency - Abu Dhabi (EAD), Tadweer (Center of Waste Management – Abu Dhabi (CWM)) and the concerned authorities have jointly developed a Waste Management Strategy for the Emirate of Abu Dhabi (2014) that specifies CWM will develop an integrated waste management system in Abu Dhabi that is based on the principles depicted by the waste management hierarchy and life cycle approach (LCA). To effectively manage reuse or recycling of the waste, including resource recovery, it is essential to have well managed effective collection and transportation system with proper traceability.

This policy is part of a series of policy documents that have been prepared to establish the regulatory framework for integrated waste management in the Emirate of Abu Dhabi.

I.2 Objectives

This policy aims to foster safe and sustainable collection and flow of wastes as appropriate for the specific type, classification and commensurate with the Waste Management Strategy.

This policy encourages development and implementation of an Emirate-wide system for efficient and transparent waste collection, segregation, transfer and tracking. The system will include monitoring, recording and control of the collection and transfer of wastes from one holder to another and from the point of generation through the final point of ultimate reuse, recycling, resource recovery or disposal.

This policy aims to support the Emirate's vision for an environmentally, socially and economically sustainable waste management system to achieve the overall objectives of the Abu Dhabi Environmental Vision 2030 and Abu Dhabi Environment Policy Agenda (ADEPA).

2. POLICY FRAMEWORK

2.1 Scope and Applicability

This policy is addressing the collection, segregation, transfer and tracking of all type of waste in the Emirate of Abu Dhabi including non-hazardous solid waste, hazardous solid and liquid waste (excluding sewage waste and drainage water) as well as medical waste.

The policy applies to all generators of wastes by government and private sector entities, in the form of liquids and solids, whether they are potentially hazardous or non-hazardous.

This policy does not apply to non-hazardous liquid waste (sewage) and nuclear (radioactive) waste. The policy also does not include waste prevention, minimization and reduction which are addressed in a separate policy document (EAD-EQ-PR-P-05: Waste Reuse, Recycling, Resource Recovery, Treatment and Disposal Policy).

The policy does not apply to wastes discharged to atmosphere in the form of gases, vapor, fumes, aerosols, dusts and particulates. However, dust and particulates collected from air pollution control devices are included in this policy.

This policy prohibits unauthorized dumping of waste in desert, open area, highway verges, etc.

2.2 Policy Statement

In the Emirate of Abu Dhabi, collection, transportation, transfer, or otherwise handling of waste shall be carried out by Environmental Service Providers (ESPs) licensed by CWM. ESPs are licensed for specific types of wastes and services including collection, transport, treatment, recycling, etc. Commercial and industrial waste generators are required to provide safe storage and handling of their wastes and shall engage an appropriate CWM-licensed ESP for collection and transportation of their waste. They are also required to provide full disclosure to the licensed ESP regarding the waste characteristics, any potential hazard and precautions required if any through the waste data sheet. Any waste generator that produces a hazardous waste, as defined under waste classification policy, is required to comply with the relevant policies and regulations (EAD-EQ-PR-P-01: Waste Classification Policy).

Waste generators (commercial and industrial including but not limited to healthcare facilities, schools, shopping malls, hotels, restaurants, labor camps, etc. as well as agriculture farms, animal farms and livestock) shall be responsible for maintaining the proper documentation and audit trail

including manifestation for all types of waste (CWM TG # 01: Requirement and Procedure for Disposal of Hazardous Waste). The ESPs shall be required to comply with the manifestation requirements and submit manifest copies to the waste generator and to CWM. The ESPs shall also submit a summary of waste manifestation in form of ESP monthly register. The waste generator shall be responsible for his waste from the point of the generation to the ultimate point of recycling / treatment / disposal (Cradle to Grave). Therefore, the waste generator shall ensure that the contracted licensed ESP provides him with a copy of the fully completed and signed manifest. Waste manifest shall be considered as essential evidence for all purposes including waste tariff calculations, etc.

All waste generators (commercial and industrial including but not limited to healthcare facilities, schools, shopping malls hotels, restaurants, labor camps, etc. as well as agriculture farms, animal farms and livestock) are required to use the services of registered ESPs for collection and transportation. All waste generators are required to ensure that their waste is segregated as per the Waste Classification Policy and brought to the designated collection points / bins only. Any form of disposal outside the designated collection points / bins will be considered as illegal dumping and will be liable for legal enforcement action.

Waste Collection

ESPs are responsible to ensure that the waste collection throughout the Emirate of Abu Dhabi is carried out in a timely and efficient manner and public spaces and streets are kept clean and free from odors. Waste generators and ESPs shall use specific color coding and registration number for skips / waste containers in compliance with CWM TG # 06: Requirements and Procedures for Registration of Waste Skips and Container. For residential complexes under the control of

developers, the responsibility of collection and transportation of segregated waste shall rest with the developer of residential complex / project. CWM shall create collection points for collection of Recyclables, Hazardous Waste and Waste Electronics & Electrical Equipment at strategic locations in all regions of the Emirate of Abu Dhabi.

All waste generators (commercial and industrial including but not limited to healthcare facilities, schools, shopping malls hotels, restaurants, labor camps, etc. as well as agriculture farms, animal farms and livestock) are required to use the services of registered ESPs. All residents of the Emirate of Abu Dhabi shall be required to deposit domestic hazardous waste such as batteries including car batteries, fluorescent tube / bulbs, compact fluorescent lamps (CFLs) or energy saving bulbs, solvent / paint cans, etc. separately at designated hazardous waste collection points. Domestic medical waste generated in individual houses in small quantities shall be collected, handled and transported in accordance with the relevant standards. Also, the residence shall give their used electrical and electronic equipment to the licensed ESPs for the purpose of recycling. The CWM in coordination with EAD shall be responsible for generating awareness on the subject before implementation.

ESPs are responsible to identify collection routes that minimize fuel requirements and emissions, including the strategic location of transfer stations that result in shorter transport distances to unloading.

CWM will set key performance indicators to ensure effective collection coverage, collection time and travel distances to transfer stations. These indicators shall be reviewed by CWM regularly and necessary actions shall be taken to ensure sustainable waste management.

Waste Segregation

Segregation of waste at the point of generation is an important step to optimize recycling and resource recovery as part of an integrated waste management approach. Mixed and contaminated waste defeats the overall objectives of recycling and reuse. This policy requires all residents of the Emirate of Abu Dhabi to segregate their residential waste into recyclable, non-recyclable and hazardous waste at the source. For residential complexes under the control of developers, the responsibility of segregation and transportation of segregated waste shall rest with the developer of residential complex / project. Abu Dhabi Urban Planning Council and respective municipalities shall enforce the requirement of segregation of residential waste into recyclable, non-recyclable and hazardous waste at the source, through master plan approval, building permit, Estidama certification and other tools.

This policy mandates all industrial and commercial waste generators including healthcare facilities, schools, hotels, restaurants, etc. to segregate their waste into different types, complying with the Waste Classification Policy (EAD-EQ-PR-P-01) and Waste Classification Technical Guideline. Also, the policy requires all construction & demolition waste to be free from asbestos. This requirement shall be implemented and enforced by the respective municipalities as part of the building and demolition permit system.

Waste generators are required to provide safe segregation, storage and handling the wastes up to the point of collection by ESP. It is the full responsibility of each waste generator to determine the type of waste as per the waste classification policy (EAD-EQ-PR-P-01: Waste Classification Policy). The generator shall undertake waste characterization through approved laboratories, wherever required.

Waste generators shall pack and label the waste (especially hazardous waste) in a way to prevent leaks or the production of heat or fire resulting from a chemical reaction between mixed materials. Waste generators shall comply with CWM TG # 02: Requirements for the Transportation of Hazardous Wastes.

Waste Transfer

Non-compatible wastes shall not be transported together and hazardous waste shall be segregated and transported in a vehicle which is fit for purpose and licensed for the specific waste type.

Waste shall be transported by licensed ESPs using a vehicle licensed for the specific waste being transferred. Unlicensed carriers and companies using unlicensed vehicles will be prosecuted under Law # 21 of 2005.

All transfer stations shall be licensed by the CWM, have an environmental permit from EAD and any other government licenses / permits required to operate legally (EAD-EQ-PR-P-03: Licensing and Enforcement Policy for Waste Sector).

ESPs transporting hazardous waste shall use special vehicles, equipped with emergency kits including a Transport Emergency card (TREM card), (CWM TG # 01: Requirements and Procedure for Disposal of Hazardous Waste). The drivers shall also be qualified and trained to handle any emergency cases during transportation.

Any waste generator intending to transfer waste outside the Emirate of Abu Dhabi for the purpose of treatment or recycling shall obtain a permit from CWM for each trip before departure.

ESPs shall optimize the collection routes in order to minimize the environmental impacts associated with transporting waste.

Waste Tracking

It is important that waste movements are tracked to ensure waste is transported from the place of generation to the intended destination. An effective tracking system will help to minimize illegal waste movements and illegal waste dumping.

CWM has the responsibility for maintaining and improving systems for tracking waste loads and vehicles through global positioning system (GPS) and / or radio frequency identification device (RFID). CWM is also responsible for tracking all vehicles that are transporting waste from the point of generation to the treatment / disposal site.

Each licensed ESP shall install the appropriate tracking equipment in each vehicle(s) to track movement of the waste handled. No waste transport vehicle shall be licensed / permitted without installation of appropriate tracking equipment (GPS, RFID, etc.).

Waste generators are responsible for ensuring and recording waste quantities using CWM manifest form (<https://licensing.cwm.ae/en/files/manifest-english.pdf>). The manifestation shall be an electronic system. All waste collection and transportation vehicles shall be equipped with on board weighing system capable of tagging and transferring electronically data to central database for manifestation and other requirements. Also, the waste generators are required to submit annual waste reduction plan, in order to obtain CWM approval and no objection certificate (NOC) for their yearly trade license renewal.

2.3 Legal Authority

This policy requires that all waste shall be collected, transported and transferred only by ESPs licensed by CWM. Each ESP shall be licensed for each specific type of wastes he wishes to handle and for the specific services he wishes to provide. Waste shall not be transported out of the Emirate of Abu Dhabi or brought into the emirate without a permit from CWM.

This policy is issued based on the regulatory structure as referred to in:

1. Federal Law No. 24 of 1999 regarding Protection and Development of the Environment;
2. Abu Dhabi Law No. 21 of 2005 regarding Waste Management in the Emirate of Abu Dhabi;
3. Abu Dhabi Law No. 17 of 2008 regarding establishing the Center of Waste Management - Abu Dhabi; and
4. Federal Cabinet Decree No. 37 of 2001 regarding the Regulations for the Handling of Hazardous Materials, Hazardous wastes and Medical Wastes.

2.4 Effective Date

The policy will come into effect and shall be implemented for enforcement six months after the date of official approval.

3. POLICY ANALYSIS

3.1 Impact Assessment

The implementation of this policy will help for the achieving many outcomes and benefits such as:

- Avoiding the environmental damage caused by the illegal dumping of waste and the promotion of proper waste treatment and maximizing recycling;
- Encouraging development and implementation of an emirate-wide system for efficient and transparent waste collection, segregation, transfer and tracking;
- Minimizing waste trafficking outside of the emirate's borders and illegal dumping;
- Electronically manage all waste data from all sources including electronic manifestation;
- Maximizing the collection of recyclable products;
- Positive contribution to the economic development as result of recycling, reusing of waste materials and use of recycled products;

- Encouraging the government and private sectors to share responsibilities and creating a sense of social accountability, for managing waste.

Although, implementing this policy may add some cost in the management of waste such as the cost of installation tracking equipment and the associated system as well as each category of waste that is segregated has an associated cost for the separate storage and collection, but these costs are obviously less than the cost of the environmental damage.

3.2 Measurement of Actions

With the aim of achieving the objectives set under the Abu Dhabi Environment Vision 2030, EAD and CWM along with other stakeholders has developed strategies for improving waste management system in the Emirate of Abu Dhabi. The following outcomes have been set for the waste collection, segregation, transfer and tracking.

Table I. Waste Management Measures

Priority Area	Measure
Collection	Manifestation of all waste types.
	Establishing domestic hazardous waste collection points.
Segregation	Segregation of residential waste into recyclable and non-recyclable.
	Segregation of asbestos from construction & demolition waste.
	Segregation of all waste by industrial and commercial waste generators.
Transfer	Waste transfer by only registered ESP (permitted for specific type).
	Transfer of waste outside the Emirate of Abu Dhabi only through permit.
Tracking	Tracking of waste transport vehicles by GPS / RFID.

4. REFERENCES

4.1 Citations Included

Federal Law No. 24 of 1999 regarding Protection and Development of the Environment.

Abu Dhabi Law No. 21 of 2005, Waste Management in the Emirate of Abu Dhabi.

Abu Dhabi Law No. 17 of 2008 regarding establishing the Center of Waste Management - Abu Dhabi.

Federal Cabinet Decree No. 37 of 2001 regarding the Regulations for the Handling of Hazardous Materials, Hazardous wastes and Medical Wastes.

Board Degree No. 1 for the year 2010 on the imposition of fees on producers and transporters of waste of all types and license fees and permits at the Center of Waste Management - Abu Dhabi.

Waste Management Policy (EAD-EQ-PR-P-01): Waste Classification Policy.

Waste Management Policy (EAD-EQ-PR-P-03): Licensing and Enforcement Policy for Waste Sector.

Waste Management Policy (EAD-EQ-PR-P-05): Waste Reuse, Recycling, Resource Recovery, Treatment and Disposal Policy.

Tadweer (Waste Management Center – Abu Dhabi) Technical Guidelines (CWMTG # 01): Requirement and Procedure for Disposal of Hazardous Waste.

Tadweer (Waste Management Center – Abu Dhabi) Technical Guidelines (CWMTG # 02): Requirements for the Transportation of Hazardous Wastes.

Tadweer (Waste Management Center – Abu Dhabi) Technical Guidelines (CWMTG # 06): Requirements and Procedures for Registration of Waste Skips and Container.

Tadweer (Waste Management Center – Abu Dhabi) Technical Guidelines (CWMTG # 09): Permitting & Licensing Waste Transportation Vehicles & GPS Requirements.

International Convention for the Prevention of Pollution of the Sea by Oil, 1954 and its amendments.

International Convention on Civil Liability for Oil Pollution Damage (CLC), 1969.

Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LDC), 1972 (MARPOL).

Vienna Convention for the Protection of the Ozone Layer of 1985 and Montreal Protocol on Substances that Deplete the Ozone Layer of 1987.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their disposal, 1989.

United Nations Framework Convention on Climate Change for the year 1992.

United Nations Model Regulation –Transport of Dangerous Goods 2013.

1992 Protocol Concerning Amendments on International Convention on Civil Liability for Oil Pollution Damage (CLC), 1969 and International Convention on the establishment of an International Fund for Compensation for Oil Pollution Damage, 1971.

Regional Convention of Protocol on the Control of Marine Transboundary Movements and Disposal of Hazardous Wastes and Other Wastes, 1998.

Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention), 1998.

Stockholm Convention on Persistent Organic Pollutants (POPS), 2001.

Montreal Amendments (London 1990, Copenhagen 1992, Montreal 1997, Beijing 1999), Kyoto Protocol, 1997.

Kuwait Regional Convention for cooperation on the protection of the marine environment from pollution, 1978.

Waste Management Strategy for the Emirate of Abu Dhabi, 2014.

Abu Dhabi Environment Policy Agenda (ADEPA), 2014.

4.2 Definition of Key Terms

Please refer to the waste definition document for all key terminology.

4.3 Resources Needed to Support This Policy

For the proper implementation of this policy the Integrated Waste Management Master Plan should incorporate necessary measures required.