



# Mersinli Wind Power Plant Project

Waste Management Plan

March 2018

## Quality information

**Prepared by**

AECOM Turkey

**Checked by**

Burcu Yazgan Kayabali,  
ESIA and ESDD Section Manager

**Approved by**

Dr. Hande Yukseler  
Environment End Market (EM)  
Director Turkey

## Revision History

Revision	Revision date	Details	Authorized	Name	Position
Rev1	13.03.18	Final	13.03.18	Dr. Hande Yukseler	Environment EM Director Turkey

Prepared for:

Mersinli Wind Power Plant Project

Prepared by:

AECOM Turkey Danışmanlık ve Mühendislik Ltd. Şti  
Mustafa Kemal Mahallesi Dumlupınar Bulvarı Tepe Prime  
No:266 B Blok  
No:50-51 06800  
Çankaya  
Ankara  
Turkey

T: +90 312 4429863  
aecom.com

© 2018 AECOM Turkey Danışmanlık ve Mühendislik Ltd. Şti. All Rights Reserved.

This document has been prepared by AECOM Turkey Danışmanlık ve Mühendislik Ltd. Şti ("AECOM") for sole use of our client (the "Client") in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM.

## Table of Contents

1.	Purpose and Scope .....	5
2.	Legislative Requirements and Standards .....	6
2.1	National Legislation .....	6
2.1.1	Regulation on Waste Management .....	6
2.1.2	Regulation on Control of Excavation, Construction and Demolition Wastes .....	6
2.1.3	Packaging Waste Control Regulation (PWCR) .....	7
2.1.4	Waste Batteries and Accumulators Control Regulation .....	7
2.1.5	Waste Oils Control Regulation (WOOCR) .....	7
2.1.6	Waste Vegetable Oils Control Regulation (WVOOCR) .....	8
2.1.7	Medical Waste Control Regulation (MWCR) .....	8
2.1.8	Waste Tires Control Regulation .....	8
2.1.9	Regulation on Control of Waste Electrical and Electronic Equipment .....	8
2.1.10	Communiqué on Recovery of Some Non-Hazardous Wastes .....	8
2.2	Requirements of International Financing Institutions .....	9
2.2.1	European Bank for Reconstruction and Development (EBRD) Performance Requirement (PR) 3 ...	9
2.2.2	International Finance Corporation (IFC) Performance Standard (PS) 3 .....	9
2.3	European Union (EU) Legislation .....	9
3.	Roles and Responsibilities .....	10
4.	Waste Management .....	11
4.1	Waste Management Approach .....	11
4.2	Classification of Wastes .....	12
4.2.1	Non-Hazardous Wastes .....	12
4.2.2	Hazardous Wastes .....	12
4.3	Implementation .....	12
4.3.1	Waste Collection, Storage, Transportation and Disposal .....	12
4.3.1.1	Collection, Segregation and Storage .....	12
4.3.1.2	Transportation and Disposal .....	14
5.	Monitoring and Reporting .....	15
6.	Training .....	15
7.	Review and Update .....	15
	Appendix A Waste Log Form .....	16
	Appendix B Waste Management Inspection Checklist .....	17

## Figures

No table of figures entries found.

## Tables

Table 3-1.	Roles and Responsibilities .....	10
------------	----------------------------------	----

## 1. Purpose and Scope

“Alcazar Energy Partners (“Alcazar Energy”) through the Project Company, as defined below, is planning to construct and operate the Mersinli Wind Power Plant Project (“Mersinli WPP Project”, the “Project”), in İzmir province, within the administrative borders of Kemalpaşa, Torbalı and Bayındır districts, Çardaklı Tepe, Kartal Tepe, Mersinli, Karlık Tepe and Akçam Tepe localities. At the national tender stage conducted for the wind power projects in 2007, the previous Project owner established a project company, namely Yander Elektrik Muh. Mus. Ins. Tur. ve Tic. A.S. (“Yander Elektrik” or the “Project Company”), for the development of the Project. In May 2017, Alcazar Energy, through a wholly owned subsidiary, acquired 100% of the shares of Yander Elektrik and is now the sole owner of the Project.”

The Waste Management Plan is developed for the Project to set out the primary applicable requirements associated with waste management in compliance with related national legislation and international standards including EBRD Environmental and Social Policy and Performance Requirements (PRs) (May 2014), IFC Sustainability Framework and Performance Standards (PSs) (January 2012), Equator Principles III (June 2013) and other applicable Good International Industry Practices (GIIPs). The plan will be applied systematically during construction, operation and rehabilitation phases of the Project.

Throughout the Project life, different types of wastes and materials will be generated from different sources and activities. The purpose of this plan is to guide and obtain the acceptable collection, segregation, storage, handling, transportation and disposal of non-hazardous and hazardous wastes generated from the Project activities in a way that minimizes the impacts on human health and environment, including minimization of loss of valuable reusable/recyclable materials.

The Plan is in compliance with national legislation, requirements of international financing institutions (e.g. IFC Performance Standards, EBRD Performance Requirements) and other applicable Good International Industry Practices (GIIPs). The plan will be applied systematically during the lifetime of the Project, in conjunction with the following related management plans and programs:

- Environmental and Social Management and Monitoring Plan (ESMMP)
- Biodiversity Action Plan (BAP);
- Contractor Management Plan;
- Erosion Control, Soil and Spoil Management Plan;
- Occupational Health and Safety Plan; and
- Stakeholder Engagement Plan (incl. grievance mechanism);

This Plan is a living document and the responsibilities, procedures and compliance actions should be updated as appropriate.

## 2. Legislative Requirements and Standards

### 2.1 National Legislation

The Environmental Law (No. 2872), which was published in the Official Gazette No. 18132 dated August 11, 1983 provides the legislative framework for the regulation of industries and their potential impact on the environment. Industrial projects are subject to varying levels of review that begin while projects are in the development phase. Additional regulations apply to facilities once they are in operation.

The Environmental Law authorized the promulgation of a number of regulations. Those that pertain to waste management and the Project have to comply with are described below.

#### 2.1.1 Regulation on Waste Management

The Regulation on Waste Management is the implementing legislation aimed at aligning with the EU Waste Framework Directive. The Regulation was published in the Official Gazette No. 29314 dated April 2, 2015.

The Regulation on Waste Management provides a single comprehensive framework for waste management. As of April 2015, it repealed and replaced the Regulation on Solid Waste Management and the Regulation on General Principles of Waste Management. As of April 02, 2016 it also repealed and replaced the Regulation on Control of Hazardous Wastes.

- Article 9 of the Regulation stipulates the responsibilities of the waste generators and waste owners, including:
- Implementation of necessary measures to minimize waste generation;
- Preparation and submission of waste management plan regarding generated wastes (with prevention and minimization measures);
- Declaration of annual waste generation via the web based system of the Ministry of Environment and
- Urbanization and use of National Waste Transport Form for wastes that require its use (template is provided in Annex 9-A of the Hazardous Waste Control Regulation which is repealed and replaced by Regulation on Waste Management).

#### 2.1.2 Regulation on Control of Excavation, Construction and Demolition Wastes

Regulation on Control of Excavation, Construction and Demolition Wastes was published in Official Gazette No. 25406 dated March 18, 2004. Articles 10, 34, 35, 36, 37, 38, 39, 40, 41 and 42 regarding the storage of the wastes were repealed by the Landfill Regulation published in Official Gazette No.27533 dated March 26, 2010.

The aim of this regulation is to set the principles and procedures to minimise: excavation, construction and demolition waste at the source of generation, as well as to: collecting, temporarily storing, transferring, recycling, reusing and disposing waste, in an environmentally sound manner.

In accordance with Article 9 of the regulation; excavation, construction and demolition generating facilities are obliged to implement waste management in a way that will minimize the adverse effects of waste on the environment and human health. The facilities must acquire the necessary permissions that concern the generation, transportation and storage operations of waste. The facilities are not allowed to dump construction wastes to the sites/locations and facilities other than the permitted ones by the municipal or other authorities.

The regulation also stipulates that the project owner is responsible for having precautions in order to minimize noise impacts, visual impacts and dust emissions during removal of excavation material. The operation Area must also be enclosed. In addition, planning should be done in a way that the amount of excavated soil is equal to the filling volume. Excavated soils must be utilised within the operation Area to the extent possible.

### **2.1.3 Packaging Waste Control Regulation (PWCR)**

PWCR was published in the Official Gazette No. 28035 dated August 24, 2011. The aim of the regulation is to;

- Provide certain environmental criteria, requirements and characteristics for packaging production,
- Prevent direct and indirect disposal of packaging wastes causing environmental damage, and
- Prevent and minimise generation of package waste by means of reuse, recycling and recovery methods.

PWCR states that the packaging wastes should be collected and stored separately from other wastes at source in order to ensure their disposal without causing any environmental damage; to reduce environmental pollution; to benefit from the landfills at maximum levels; and to contribute to the economy.

Packaging waste generating parties located in the boundaries of municipalities that conduct separate collection at source is obliged to deliver the packaging wastes to the responsible municipalities or their contracted and licensed collection/separation entities.

### **2.1.4 Waste Batteries and Accumulators Control Regulation**

Waste Batteries and Accumulators Control Regulation was published in Official Gazette No. 25569 dated August 31, 2004. The purpose of this Regulation is;

- Arrange legal and technical principles for development of policies and programs for batteries and accumulators from their production to their final disposal,
- Ensure production of batteries and/or accumulators with certain criteria and basic conditions and characteristics in terms of the environment,
- Prevent discharge to the receiving environments,
- Ensure technical and administrative management standards are in place, and
- Establish a collecting system for the recovery and final disposal of used batteries and accumulators.

According to the Regulation, battery and accumulator consumers are obliged to;

- Collect used batteries separately from household wastes,
- Deliver used batteries to the collection points established by municipalities or enterprises that are engaged in the distribution and sales of battery products,
- Deliver the old accumulators to the temporary storage facilities established by the enterprises engaged in the distribution and sale of accumulator products and enterprises operating vehicle maintenance/ repair sites (accumulators cannot be delivered in excess of 90 days once they are out of use),
- Pay a deposit if a new accumulator is to be purchased when delivering the old one and
- Ensure impervious ground and other required conditions are met for the temporary storage sites where batteries and accumulators will be stored,

### **2.1.5 Waste Oils Control Regulation (WOCR)**

WOCR was published in the Official Gazette No. 26952 dated June 30, 2008. The purpose of the WOCR is:

- To prevent direct and indirect disposal of waste oils in the environment;
- To ensure temporary storage, transportation and disposal thereof without causing harm to environment and human health;
- To set up necessary technical and administrative standards in management of waste oils;
- To determine the required principles and programs in order to establish temporarily storage, handling and disposal facilities and
- To manage these facilities in an environmental friendly manner.

According to Article 9 of WOCR, waste oil producers are obliged to take required measures to minimise the generation of waste oils, including waste motor oils and residues resulting from processing of waste oils. Waste oil producers must conduct waste oil analyses and declare generated amounts to the Ministry of Environment and Urbanization. Waste oil from different categories should not be mixed with each other or with other hazardous wastes.

Waste oil producers shall comply with the provisions of Hazardous Waste Control Regulation for disposal. All records including waste oil declaration forms and analyses reports are required to be kept for at least five years. In order to transport waste oils, the regulations that will be determined by Ministry of Environment and Urbanization shall be complied with.

Waste oil is required to be collected in red coloured tanks/containers with a label of "Atık Yağ" ("Waste Oil") on it. The containers are placed in storage with provisions for protection from rain, as well as an impermeable ground (a thickness of at least 25 cm and covered by epoxy, geomembrane and similar insulation materials).

### **2.1.6 Waste Vegetable Oils Control Regulation (WVOCR)**

Published on the Official Gazette No. 29378 dated June 06, 2015; this regulation aims to provide management practices for waste oils from generation to disposal.

According to the Regulation, waste vegetable oils can only be collected by licensed recovery facilities or licensed waste vegetable oil storage facilities. These firms are required to use the national waste register for transport of waste vegetable oils.

### **2.1.7 Medical Waste Control Regulation (MWCR)**

MWCR was published in Official Gazette No. 25883 dated January 25, 2017. The purpose of the MWCR is to establish principles, policies and programs along with legal, administrative and technical fundamentals to prevent direct or indirect discharge of medical waste into receiving environment in any way that could harm the environment or human health. The Regulation also requires that medical waste is collected separately at source and temporarily stored, transported and disposed without causing harm to environment or human health.

### **2.1.8 Waste Tires Control Regulation**

Waste Tires Control Regulation was published in Official Gazette No. 26357 dated November 25, 2006. The regulation aims to;

- Prevention of direct and indirect disposal of waste tires to the receptor platforms, which may harm the environment,
- Installation of tyre collection and carriage systems for recycling or disposal, and
- Development of related management plan.

Bicycle and solid tires are exempted, this regulation includes the legal and penalty causing responsibilities to be subjected, audits to be carried out, legal limitation and responsibilities for the import, export and transit, termination, gaining for re-usage, temporary storage, carriage and collection of the tires which have completed their life cycles separately from the wastes.

### **2.1.9 Regulation on Control of Waste Electrical and Electronic Equipment**

Published in the Official Gazette No. 28300 dated May 22, 2008, one of the main purposes of the Regulation is to identify the methods and targets regarding minimization of electrical and electronic waste generation through reuse, recycling and recovery.

### **2.1.10 Communiqué on Recovery of Some Non-Hazardous Wastes**

The Communiqué on Recovery of Some Non-Hazardous Wastes was published in Official Gazette No. 27967 dated June 17, 2011. According to this communiqué, the producers of the non-hazardous waste are obliged to minimise its generation, as well as preparing and implementing a waste management plan related to the recovery of these wastes.

Waste is required to be stored in leak proof (or similar) containers in an area of impermeable ground and roof. Non-hazardous wastes can be stored temporarily on site for one year until recovery. The producers are also obliged to send their non-hazardous waste to licensed collection and separation or licensed recovery facilities. In addition, it is obligatory to prepare and submit a three year waste management plan to the Provincial Environment and Urbanization Directorate.

Furthermore, it is mandatory to fill the non-hazardous waste declaration form every year with the information of previous year and submit these forms digitally to the Ministry. It is also stated that the copy of the forms should be kept for 5 years.

## **2.2 Requirements of International Financing Institutions**

### **2.2.1 European Bank for Reconstruction and Development (EBRD) Performance Requirement (PR) 3**

Within the scope of “EBRD PR3 - Resource Efficiency and Pollution Prevention and Control”; the following requirements are applicable to the Project:

- The client will adopt technically and financially feasible and cost effective measures for minimising its consumption and improving efficiency in its use of energy, water and other resources and material inputs as well as for recovering and re-utilising waste materials in implementing the project.
- The client will avoid or minimise the generation of hazardous and non-hazardous waste materials and reduce their harmfulness as far as practicable.
- When waste disposal is transferred offsite and/or conducted by third parties, the client will obtain chain of custody documentation to the final destination and will use contractors that are reputable and legitimate enterprises licensed by the relevant regulatory agencies.

### **2.2.2 International Finance Corporation (IFC) Performance Standard (PS) 3**

To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities and to promote sustainable use of resources, “IFC PS3 - Resource Efficiency and Pollution Prevention” requires the following:

- The client will implement technically and financially feasible and cost effective measures for improving efficiency in its consumption of energy, water and other resources and material inputs.
- The client will avoid the generation of hazardous and non-hazardous waste materials. Where waste generation cannot be avoided, the client will reduce the generation of waste, and recover and reuse waste in a manner that is safe for human health and the environment.
- When hazardous waste disposal is conducted by third parties, the client will use contractors that are reputable and legitimate enterprises licensed by the relevant government regulatory agencies and obtain chain of custody documentation to the final destination.

## **2.3 European Union (EU) Legislation**

Directive 2008/98/EC (the Waste Framework Directive) provides general provisions for waste management and sets the basic waste management definitions. It requires that waste is managed without endangering human health and harming the environment, and in particular without risk to water, air, soil, plants or animals, without causing a nuisance through noise or odours, and without adversely affecting the countryside or places of special interest. The Directive amended former EU directive on waste, hazardous waste and waste oils and is currently covering all wastes identified by Decision 2000/532/EC (i.e. the European Waste Codes).

In an effort to harmonize Turkish environmental protection standards with EU's Waste Framework Directive (2008/98/EC) and the European Commission Decision establishing a list of waste (2000/532/EC), the Turkish MoEU adopted a new regulation on waste management that will significantly affect companies that produce waste in Turkey. Waste management implementing legislation aimed at aligning with the Waste Framework Directive was adopted in 2015. Currently, waste codes provided in Annex 4 of the Turkish Regulation on Waste Management are entirely the same with the European Waste Codes.

### 3. Roles and Responsibilities

Roles and responsibilities for E&S management for the Project are described in detail in the Project ESMS. Within this scope, roles and responsibilities regarding waste management are provided in Table 3-1.

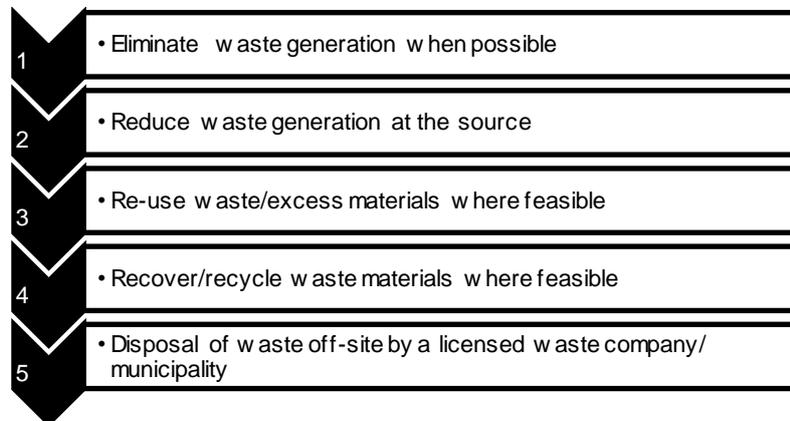
**Table 3-1. Roles and Responsibilities**

<b>Roles</b>	<b>Responsibilities</b>
Project Execution Manager	<ul style="list-style-type: none"> <li>• Ensure adequate resources are provided for implementation of this Plan.</li> <li>• Ensure the Plan is distributed to all Contractors.</li> </ul>
Project Company / QHSE Manager and Team	<ul style="list-style-type: none"> <li>• As required, review and update the Plan (in coordination with the Project Company Environmental Specialist and Contractor QHSE Managers/ teams).</li> <li>• Ensure technical support is provided to Contractors for implementation of the Plan.</li> <li>• Ensure related trainings are provided by the contractors and the Project Company, through review of training records and related training documents.</li> <li>• Oversee contractors' HSE compliance with Project requirements through contractor monitoring and reports.</li> </ul>
Project Company / Environmental Specialist	<ul style="list-style-type: none"> <li>• Main responsibility for ensuring the implementation of the Plan (including by the Contractors) and reporting of non-compliances and implementation performance of the Plan to the upper management.</li> <li>• As required, review and update the Plan (in coordination with the Project Company Environmental Specialist and Contractor QHSE Managers/ teams).</li> <li>• Collect data from the Contractors on waste management practices and waste data (e.g. amounts and types of generated waste, amount and type of waste sent by licensed firms/municipalities, spills/leakages, etc.).</li> <li>• Conduct periodic internal audits.</li> </ul>
Contractor QHSE Managers	<ul style="list-style-type: none"> <li>• Ensure this plan is implemented in line with Project standards.</li> <li>• Ensure related non-compliances are recorded and responded to immediately.</li> <li>• Provide related trainings.</li> <li>• Conduct internal audits and daily inspections and record identified incompliances.</li> <li>• As required (e.g. in case incompliances are identified, a change in applicable legislation occurs, etc.), participate in development of corrective and/or enhancement actions.</li> <li>• Ensure waste management issues are included in the monthly HSE review and incident reports to be prepared by the contractors for the Project Company Environmental Specialist and the Project Company QHSE Manager.</li> </ul>
All personnel	<ul style="list-style-type: none"> <li>• Participate in trainings required for waste management.</li> <li>• Ensure self-competency in terms of implementation of this plan.</li> </ul>

## 4. Waste Management

### 4.1 Waste Management Approach

The Waste Framework Directive (Directive 2008/98/EC) provides a waste hierarchy, which lays down priorities for best overall environmental option in applicable waste legislation and policy. Within this scope, the EU waste hierarchy will also be the hierarchical approach of the Project. Within this scope, management of wastes will be based on the following, in the order of decreasing preference:



In order to minimise and appropriately manage the waste generated on site, the following good management practices will be used:

- Reduction of waste generation (through management practices, avoiding or decreasing materials use, etc.) is the primary goal of this plan.
- Non-hazardous wastes will be segregated from hazardous wastes.
- Recycling of wastes will be mandatory throughout all Project activities and related trainings will be provided.
- Wastes to be sent to licensed recycling/recovery firms will be segregated by type.
- Effort will be made to minimise the quantity of hazardous materials used.
- Personnel that handles hazardous materials and wastes, will be trained for proper handling and management.
- Spills of hazardous materials will be prevented through careful and sensible management of the materials.
- Where possible, non-hazardous alternatives will be used in place of hazardous materials.
- Regular inspections of storage areas will be conducted. If damaged or leaking containers are detected, they will be replaced.
- Preventive maintenance will be performed on equipment to avoid potential spills.
- Waste storage areas will have secondary containment or spill trays.
- Under no circumstances, waste will be disposed on-site.

## 4.2 Classification of Wastes

The Project activities will lead to the generation of various non-hazardous and hazardous wastes.

### 4.2.1 Non-Hazardous Wastes

Typical non-hazardous wastes are given below :

- Domestic waste,
- Recyclable wastes (e.g. paper, glass, metals, wooden waste, trees, tin cans, textile, etc.),
- Packaging waste,
- Waste tires, and
- Excavation waste.

### 4.2.2 Hazardous Wastes

Different type of hazardous wastes, that may potentially be generated as a result of the project activities, are given below :

- Waste batteries and accumulators,
- Waste vegetable oil,
- Medical waste,
- Waste oil (from maintenance of equipment and vehicles, transformers, etc.),
- Waste paint,
- Other hazardous waste related to operation and maintenance (O&M) activities, and
- Materials that came into contact with hazardous materials (including pesticide containers).

## 4.3 Implementation

### 4.3.1 Waste Collection, Storage, Transportation and Disposal

In line with the legal requirements, an industrial (hazardous and non-hazardous) waste management plan will be prepared and submitted to the Provincial Directorate of Environment and Urbanization. Also, it is mandatory to fill the waste declaration form every year in March with the information of previous year and submit these forms digitally to the Ministry of Environment and Urbanization.

#### 4.3.1.1 Collection, Segregation and Storage

Wastes will be segregated and temporarily stored in designated secured storage areas separately defined for hazardous and non-hazardous wastes. Transport and ultimate disposal is covered in Section 4.3.1.2.

#### ***Non-Hazardous Wastes***

Management of non-hazardous wastes will be as follows:

- Domestic wastes will be collected in special trash bins and temporarily stored onsite in compliance with Regulation on Waste Management.
- Recyclable wastes will be separated and stored temporarily onsite in reserved areas.
- Packaging wastes will be collected separately and temporarily stored onsite in reserved areas in compliance with Packaging Waste Control Regulation.
- Suitable waste containers will be provided at the places of waste generation to facilitate safe and environmentally sound temporary storage. All containers will be clearly marked according to contents.

## **Hazardous Wastes**

Management of hazardous wastes will be as follows:

- In accordance with international standards and international common practice, hazardous wastes will be stored in containers that are non-damaged, leak-proof, safe and appropriate. In line with related legislation, a dedicated area with concrete floor will be used for storage.
- All waste containers that are being handled will have clear identification and accurate description of the type of waste. This will provide information to site and external personnel for safe handling and transfer of waste. Any unidentified wastes will be considered as hazardous waste. Waste labels will include information such as waste classification/category, volume of waste, MSDS and required PPEs. Any old labelling on the containers will be removed or covered to avoid confusion.
- The hazardous waste containers will be checked regularly, in order to determine whether they are damaged or any spillage has occurred.
- Hazardous waste containers will be kept closed and wastes will be stored in a way that they will not have chemical reactions.
- Vehicles and construction machinery will be used during the land preparation, construction and closure phases of the Project. Maintenance (e.g. oil change, battery change, etc.) of machinery and equipment is planned to be performed outside of the Project Area, at qualified service providers. In case it is inevitable to perform oil change, battery change, tire change, etc. on site, reserved areas for this work (with appropriate drainage) will be used. An impermeable cover will be laid under vehicles to prevent soil contamination and this activity will be conducted away from the water resources. When any oil/fuel/lubricant spill or leakage occurs at site, the contamination will be controlled by using absorbents and the contaminated soil (if any) will be stripped to the adequate depth and stored also as hazardous waste.
- Absorbent material will be kept in all of the vehicles used for transportation against any leakage or spill. Information will be given to workers on the use and disposal of materials. Filters or materials saturated with petroleum products will be drained into an appropriate container to remove any free product prior to disposal.
- Waste oils will be temporarily stored, handled and disposed in separate containers, according to the categories referred to in the Waste Oil Control Regulation. Waste oil will be collected inside the containers placed on an impermeable surface. Different containers will be used for waste oils of different categories. Waste oil temporary storage containers will have "Waste Oil" sign on.
- Waste vegetable oils will be collected in special containers temporarily.
- Discharge of the waste oils to receiving environments or lavatories/sinks will not be allowed.
- Waste batteries and accumulators will be collected and stored separately in compliance with Waste Batteries and Accumulators Control Regulation.
- Project vehicle maintenance will be conducted off-site. However, in case tires of vehicles and the construction machines need to be changed, the changed tires will be kept in special reserved places in line with Waste Tires Control Regulation.
- Medical wastes will be collected separately from other wastes in compliance with Medical Waste Control Regulation.
- The Project activities do not require use of explosives. However, if required, waste explosives will be stored in their original type of container, but marked as explosive waste and will be transported by licensed firms.

### ***Excavation, Construction and Demolition Wastes***

The soil and rock material excavated during the land preparation and construction phase will be reused on-site to the extent possible. For management of the excess excavated material, as well as other construction and demolition wastes to be generated, the following practices will be implemented:

- Under no circumstances, excavation, construction and demolition wastes will be disposed on site.
- Only small branches, leaves, etc. (the portion of the cut trees and bushes that is not collected by the related forestry authority) will be left on site, since this material will contribute to enhancement of local flora growth through fertilization of the soil.
- Areas used for temporary storage of excavation waste will be restored to original conditions as soon as earthworks/construction activities at each corresponding area finalised.
- Topsoil will be stripped separately from excavation material. The Project Erosion and Sediment Control Plan and related mitigation provided in the Project national EIA and the ESIA will be implemented for topsoil management.

#### **4.3.1.2 Transportation and Disposal**

##### ***Non-Hazardous Waste***

The following management controls will be in place for transport and recycling, recovery and disposal of non-hazardous wastes:

- A protocol will be signed with the related municipality for transfer of domestic wastes to the sanitary landfill.
- Agreements will be signed with licensed firms for transport of segregated recyclable and packaging wastes.
- The portion of excavation waste that cannot be reused on-site will be transported to excavation, construction and demolition disposal areas approved by İzmir Metropolitan Municipality. This must be in compliance with the Excavation, Construction and Demolition Waste Control Regulation.
- Agreements of the Company with licensed waste facilities will be annexed to this MP.

##### ***Hazardous Wastes***

The following management controls will be in place for transport and reuse, recovery, recycling and disposal of hazardous wastes:

- Hazardous wastes will be transported off site when the storage on site are nears maximum storage capacity levels. Hazardous waste will be securely packed and labelled prior to removal from site to ensure the waste can be transported safely to the approved disposal site without risk to those handling the waste or to the environment.
- Separately collected waste batteries and accumulators will be delivered to the collection points established by enterprises engaged in the recovery, distribution and sales of battery products; or by municipalities.
- Waste tires will be delivered to the licensed transportation, recycling or reuse (as fuel) companies.
- Medical wastes will be sent to a nearby healthcare facility or a medical waste disposal firm, under supervision of the workplace doctor.
- Waste oils will be transported by licensed transporters to the licensed processing and disposal facilities. National Transportation Form will be filled prior to transportation and waste oil declaration form will be submitted to relevant authorities annually.
- Waste vegetable oils collected in special containers will be sent to licensed companies for reuse/ recovery.
- Licenced disposal facilities will be used for transfer and disposal of other hazardous wastes.
- Agreements of the Company with licensed waste facilities will be annexed to this MP.

## 5. Monitoring and Reporting

The waste types, amount collected of each type and waste classifications, will be recorded on a monthly basis. Records for generated waste from time of generation to final destination will be maintained. A sample waste log form for this purpose is provided in Appendix A.

Annual waste declaration forms (online web based system of the Ministry of Environment and Urbanization, <http://online.cevre.gov.tr>) and National Waste Transport Forms (template is provided in Annex 9-A of the Hazardous Waste Control Regulation which is cancelled in April 02, 2016.) will be kept for 5 years onsite.

Daily inspections regarding on-site management of wastes will be conducted during the construction and operation phase. A sample checklist for subjects to be covered during inspections is provided in Appendix B. In addition to these inspections, internal audits will be conducted quarterly during the construction phase and annually during the operation phase. Results of inspections and monitoring will be provided to the upper management, as well as to EBRD within the scope of annual reporting.

Based on monitoring and audit results, corrective and/or enhancing actions will be designed and implemented. Performance of these actions will also be monitored and reported.

## 6. Training

The Project Company will ensure sufficient training is provided to all personnel (including contractors' personnel). The scope of the training will ensure that workers are able to fulfil their waste management roles and functions through awareness on relevant aspects of this plan, related legislation and standards and general waste management practices (e.g. tidiness, waste segregation, etc.).

Training details (e.g. participants, subjects, training hours provided, etc.) will be recorded and the records will be kept on-site. Personnel working routinely with hazardous wastes and materials will receive additional specialised training detailing the specific handling, segregation, labeling, storage, spill response, and disposal requirements.

## 7. Review and Update

This Plan is a living document and the responsibilities, procedures and compliance actions shall be updated as required (e.g. after a change in related legislation). It is the responsibility of Project Company's QHSE Manager and Environmental Specialist to be fully aware of its contents. The Contractor is to provide relevant training to staff and to ensure that procedures are being implemented to achieve compliance with this Plan. Additionally, the Contractors' HSE Managers will be responsible of day to day implementation of the Plan.

## Appendix A Waste Log Form

Month:

Waste Log Form No:

No	Date	Type (Hazardous/ Non-hazardous)	Sub-type	Waste (ton or m <sup>3</sup> )	Transporter	Disposer	Disposal Method
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

## Appendix B Waste Management Inspection Checklist

Inspection Date:

Inspection Location:

Control Measure	Compliance (Yes/No)	Comment
<p>Are all waste streams being properly separated and labelled in to the following categories?</p> <ul style="list-style-type: none"> <li>- Hazardous Waste</li> <li>- Non-hazardous waste</li> </ul>		
<p>Is the site waste inventory current and up to date?</p>		
<p>Are hazardous and non-hazardous wastes being stored at separate locations?</p>		
<p>Has a map been produced showing the correct waste storage locations which are visible to all workers</p>		
<p>Are all waste storage containers appropriately labelled to prevent cross contamination of waste materials?</p>		
<p>Are all waste labels complete with the appropriate information to include:</p> <ul style="list-style-type: none"> <li>- Waste stream (Hazardous, non-hazardous, etc.)</li> <li>- Type of waste (solid, liquid or sludge)</li> <li>- Amount of waste</li> <li>- Known environmental, health and safety hazards (e.g. MSDS forms)</li> <li>- Personal protection equipment (PPE) required</li> </ul>		
<p>Are licenses of companies contracted for waste transport and waste disposal valid and up-to-date?</p>		
<p>Are copies of National Waste Transport Forms kept as part of monthly waste log forms?</p>		

