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**WASTE MANAGEMENT PLAN****PURPOSE SCOPE**

This Management Plan has been developed in accordance with SPV policies, with the commitments undertaken by SPV in the ESA, with Turkish regulatory framework, with IFC Performance Standards, IFC EHS General and Sector Specific Guidelines, EBRD Performance Requirements, OPIC Environmental and Social Policy Statement and EDC. The purpose of the plan is to identify waste streams and define management actions including minimization, recycling, collection, storage, treatment and disposal of wastes which will be generated the construction phase of the Project.

This Plan includes guidelines and minimum requirements for EPC Contractor for defining its own procedures appropriate to the nature and scale of the Project Construction phase.

**APPLICATION**

This Management Plan applies to the Project Construction phase only. It applies to construction work activities under the control of SPV, of EPC Contractor and to all KİP employees.

**DEFINITIONS**

Kocaeli or SPV:	Kocaeli Hastane Yatırım ve Sağlık Hizmetleri A.Ş.
Kocaeli Integrated Health Campus Project (or "KİP" or simply "Project"):	Kocaeli Integrated Health Campus Project, being executed by SPV or its affiliates
EPC Contractor (or simply EPC):	Gama – Türkerler Kocaeli Adi Ortaklığı & Gama Türkerler Dubai
Site Management:	All key managerial roles involved in the Construction Site management, mainly referring to the EPC Contractor's personnel
Environmental and Social Management System (ESMS)	The complete set of documents (including but not limited to: policies, manuals, plans, procedures, work instruction and records) developed to address, manage, monitor, audit and review the environmental, social, health and safety aspects of the KİP, aimed at mitigating potential ESHS risks and impacts and improving ESHS performance
Guidelines to EPC Contractor	Guidelines to EPC Contractor for the development of its own ESMS and associated EPC Contractor Procedures appropriate to the nature and scale of the Project are contained in SPV ESMS documentation. SPV ESMS documentation, identify also minimum requirements and specific responsibilities for EPC Contractor in line with the EPC contract
Construction Site	The Construction Site includes all areas impacted in any manner by the construction activities.
Environmental and Social Management Plans (ESMPs)	Plans issued by SPV addressing significant Environmental and Social aspects (as identified in the ESA) by defining specific management methods, mitigation measures, monitoring activities, reporting, auditing and review.
EPC Contractor Procedure	A procedure to be prepared by EPC Contractor, to be used by EPC Contractor to describe how the mitigation and monitoring measures/actions outlined in SPV ESMPs are actually implemented.

**WASTE MANAGEMENT PLAN****ACRONYMS**

<b>KİP</b>	Kocaeli Integrated Health Campus Project
<b>SPV</b>	Kocaeli Hastane Yatırım ve Sağlık Hizmetleri A.Ş.
<b>Golder</b>	Golder Associates Turkey Ltd. Şti.
<b>BAT</b>	Best Available Technology
<b>EBRD</b>	European Bank for reconstruction and Development
<b>EDC</b>	Export Development Canada
<b>EHS</b>	Environmental, Health and Safety
<b>EPC</b>	Engineering Procurement and Construction
<b>EPRP</b>	Emergency Preparedness and Response Plan
<b>ES</b>	Environmental and Social
<b>ESHS</b>	Environmental, Social Health and Safety
<b>ESA</b>	Environmental and Social Assessment
<b>ESMP(s)</b>	Environmental and Social Management Plan(s)
<b>ESMS</b>	Environmental and Social Management System
<b>ESAP</b>	Environmental and Social Action Plan
<b>EU</b>	European Union
<b>GHG</b>	Greenhouse Gas
<b>GIIP</b>	Good International Industry Practice
<b>HS (or OHS)</b>	(Occupational) Health and Safety
<b>IFC</b>	International Finance Corporation
<b>ISO</b>	International Organization for Standardization
<b>KPI</b>	Key Performance Indicators
<b>SDS</b>	Safety Data Sheet
<b>OHSAS</b>	Occupational Health and Safety Assessment Scheme
<b>OPIC</b>	Overseas Private Investment Corporation
<b>PR</b>	Performance Requirement (issued by EBRD)
<b>PS</b>	Performance Standard (issued by IFC)
<b>QRA</b>	Quantitative Risk Analysis
<b>SEP</b>	Stakeholder Engagement Plan
<b>WHO</b>	World Health Organization

**WASTE MANAGEMENT PLAN**

**TABLE of CONTENTS**

**PURPOSE SCOPE** ..... 1

**APPLICATION** ..... 1

**DEFINITIONS** ..... 1

**ACRONYMS** ..... 2

**1.0 PURPOSE AND SCOPE OF THE PLAN** ..... 4

    1.1 *Type of Wastes* ..... 5

**2.0 BACKGROUND POLICIES AND STANDARDS**..... 5

    2.1 *National standards and regulations* ..... 6

    2.2 *International standards* ..... 7

    2.3 *Source documents* ..... 7

**3.0 ROLES AND RESPONSIBILITIES**..... 8

    3.1 *EPC Contractor & Subcontractors* ..... 8

    3.2 *SPV* ..... 8

**4.0 MANAGEMENT METHODS AND MITIGATION MEASURES** ..... 9

    4.1 *General management criteria* ..... 9

    4.2 *Specific management methods and mitigation measures* ..... 10

**5.0 MONITORING** ..... 21

**6.0 AUDIT AND REVIEW** ..... 23

**7.0 REPORTING** ..... 23

**WASTE MANAGEMENT PLAN****1.0 PURPOSE AND SCOPE OF THE PLAN**

This Management Plan has been developed in accordance with SPV policies, with the commitments undertaken by SPV in the ESA, with Turkish regulatory framework, with EBRD Performance Requirements (in particular PR3), with IFC Performance Standards (in particular PS3) and IFC General and Sector Specific EHS Guidelines, OPIC Environmental and Social Policy Statement and EDC. Where no national regulation or international standard/guideline applies, it considers the adoption of Good International Industry Practices (GIIP).

The purpose of the plan is to identify waste streams and define management actions including prevention, minimization, recycling, collection, storage, treatment and disposal of wastes, which will be generated during the construction phase of the Project.

The plan defines the requirements for the Site construction activities of KİP, which is located in Kocaeli Province, Turkey.

The overall objective is to identify waste streams, prevention and minimization actions, disposal methods, identification of permit requirement and management actions. This objective can be achieved by the implementation of measures in order to:

- Identify methods for avoidance and minimization of waste materials, where avoidance is not possible.
- Define specific waste management strategies (reuse, recovery, recycling or disposal) for each waste stream where avoidance and minimization are not possible;
- Define specific storage and transportation conditions based on specifications of wastes;
- Prevent uncontrolled spills of wastes to the environment through a correct design of the waste storage areas in construction site and use of engineering controls;
- Implement management controls (procedures, inspections, communications, training and drills) to address residual risks that have not been prevented or controlled through engineering measures;
- Monitor the amount of wastes created from the Construction site;
- Inform workers about precautions and risks when handling wastes (training) and provide necessary tools to avoid/minimize risks (e.g. protective clothing, ventilation etc.);
- Report the results of the periodic Site inspections and audits and provide for corrective actions, if necessary, in order to reach the plan objectives.

This management plan includes guidelines and minimum requirements for EPC Contractor for defining its own procedure appropriate to the nature and scale of the Project Construction phase.

This Management Plan applies to normal operating conditions during the Site construction activities and does not specifically address any emergency situation and spill contingency; this is addressed in the “Spill Response Plan (SPL)” and “Emergency Preparedness and Response Plan (EPR)”.

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## WASTE MANAGEMENT PLAN

### 1.1 *Type of Wastes*

A waste is any solid, liquid, or contained gaseous material that is being discarded by disposal, recycling, burning or incineration. It can be byproduct of a manufacturing process or an obsolete commercial product that can no longer be used for intended purpose and requires disposal.<sup>1</sup>

This management plan has been prepared specifically for the following hazardous and non-hazardous categories of wastes that will be generated during the Construction phase:

#### **Non-Hazardous waste:**

- Domestic solid waste;
- Excavation and demolition wastes;
- Iron and steel;
- Waste tires;
- Packaging waste;
- Waste Electrical and Electronic Goods.

#### **Hazardous waste:**

- Waste oil;
- Accumulators and batteries;
- Used vegetable oil;
- Medical wastes.

Other Hazardous Wastes that may be generated in limited quantities are:

- Used containers of chemicals, paints and similar;
- Solvents;
- fluorescent light tubes.

The list provided above is not comprehensive. In case other categories of wastes could be introduced at the Site during construction works, this management plan provides reference and guidelines to manage these materials according to the applicable standards.

## 2.0 BACKGROUND POLICIES AND STANDARDS

This section includes all those policies, standards and requirements of reference for this plan that are applicable for, but not limited to, the Project during Construction phase.

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<sup>1</sup> IFC General EHS Guidelines: Environmental, April 2007.

**WASTE MANAGEMENT PLAN**

A number of qualitative performance parameters have been identified in Section 4 and 5 below, derived from ESA commitments, Turkish legislation and/or IFC, EHS Guidelines, EBRD and OPIC as well as from GIIP.

**2.1 National standards and regulations**

Title	Turkish Reg. Gaz. Date
Regulation on Control of Excavation Soil and Construction Debris	25406, 18/03/2004
Regulation on Control of Waste Batteries and Accumulators	25569, 31/08/2004
Regulation on Wastes Generated from the Use of Radioactive Materials	25571, 02/09/2004
Regulation on Control of Medical Wastes	25833, 22/07/2005
Regulation on Control of End of Life Tires	26357, 25/11/2006
Regulation on Control of PCB and PCTs	26739, 27/12/2007
Regulation on Control of Waste Oil	26952, 30/07/2008
Regulation on Control of End of Life Vehicles	27448, 30/12/2009
Regulation on Landfills (Regular Storage of Wastes)	27533, 26/03/2010
Regulation on Waste Incineration	27721, 06/10/2010
Notice on Recycling of Certain Non-hazardous Wastes	27967, 17/06/2011
Regulation on Control of Packaging Wastes	28035, 24/08/2011
Regulation on Control of Waste Electrical and Electronic Goods	28300, 22/05/2012
Regulation on Management of Radioactive Wastes	28582, 09/03/2013
Regulation on Waste Management	29314, 02/04/2015
Regulation on Control of Vegetative Oils	29378, 06/06/2015
Regulation on Radiation Safety	23999, 24/03/2000
Regulation on the Safely Transportation of Radioactive Materials	25869, 08/07/2005
Regulation on Classification, Package, Use and Labeling of the Hazardous Materials and Aids	27092, 26/12/2008
Notice on Preparation and Distribution of Material Safety Data Sheets on Hazardous Materials and Aids	27092, 26/12/2008
Regulation on Inventory and Control of the Chemicals	27092, 26/12/2008
Regulation on the Restriction and Prohibition of Harmful Materials and Mixtures	27092, 26/12/2008
Regulation on the Transportation of Hazardous Goods by Road	28801, 24/10/2013
Regulation on Control of Soil Pollution and Point Source Polluted Fields	27605, 08/06/2010
Regulation on Personnel Protective Equipment	26361, 29/11/2006
Regulation on Preparation and Distribution of Material Safety Data Sheets on Hazardous Materials and Aids (hereinafter mentioned as "SDS").	27092, 26/12/2008
Regulation on Health and Safety Precautions Regarding Working with Asbestos	28539, 25/01/2013
Regulation on Protection of Workers from the Risk of Explosive Media	28633, 30/04/2013
Regulation on Procedures and Principles of Health and Safety Training for Employees	28648, 15/05/2013
Regulation on Use of Personnel Protective Equipment in Workplaces	28695, 02/07/2013
Regulation on Health and Safety Precautions Regarding Working with Carcinogenic and Mutagenic Substances	28730, 06/08/2013
Regulation on Health and Safety Precautions Regarding Working with Chemicals	28733, 12/08/2013
Regulation on Health and Safety Signs	28762, 11/09/2013



**WASTE MANAGEMENT PLAN****2.2 International standards**

Source	Document Title
The Equator Principles Association	<a href="#">The Equator Principles, June 2013</a>
IFC - International Finance Corp.	<a href="#">IFC Performance Standards (PS) and Guidance Notes (GN)</a>
IFC - International Finance Corp.	<a href="#">IFC PS3 and GN3: Resource Efficiency and Pollution Prevention</a>
IFC - International Finance Corp.	<a href="#">IFC General EHS Guidelines: Environmental</a>
IFC - International Finance Corp.	<a href="#">IFC General EHS Guidelines: Occupational Health and Safety</a>
IFC - International Finance Corp.	<a href="#">IFC General EHS Guidelines: Construction and Decommissioning</a>
IFC - International Finance Corp.	<a href="#">IFC General EHS Guidelines: Health Care Facilities</a>
EBRD – European Bank for Reconstruction and Development	<a href="#">EBRD PR 3: Resource Efficiency and Pollution Prevention and Control</a>
EBRD – European Bank for Reconstruction and Development	<a href="#">EBRD Sub-sectoral Environmental and Social Guidelines: Health Services and Clinical Waste Disposal</a>
OPIC - Overseas Private Investment Corporation	<a href="#">OPIC - Environmental and Social Policy Statement</a>
International Organization for Standardization	ISO 14001:2004 - Environmental management systems -- Requirements with guidance for use
OHSAS Project Group	OHSAS 18001 - Occupational health and safety management systems – Requirements

**2.3 Source documents**

This section presents source documents, i.e. documents where SPV commitments are sourced from and that are the trigger for the development and implementation of the ESMPs and in general of the ESMS documentation. They are in turn based on Turkish regulatory framework, EBRD Performance Requirements and IFC Performance Standard and Guidelines.

Document ID	Document Title
ESA Report	Environmental Social Assessment (January, 2016)

**WASTE MANAGEMENT PLAN****3.0 ROLES AND RESPONSIBILITIES**

Principal roles and responsibilities for the implementation of this plan are outlined below.

**3.1 EPC Contractor & Subcontractors**

- EPC Contractor has to ensure sufficient and qualified resources are allocated on an ongoing basis to achieve effective implementation of this Management Plan.
- EPC Contractor have to ensure the effective implementation of this plan by issuing its own procedure(s) addressing, detailing and customizing specific actions, measures and monitoring activities under the EPC Contractor's responsibility. The procedure(s) will include a description of allocated resources, responsibilities and communication procedures to relevant personnel.
- EPC Contractor has to provide relevant monitoring data and monitoring reports to SPV as indicated in section 7 of this plan.
- If any Subcontractor is involved, it is responsible to implement requirements included in EPC Contractor Procedure(s) under the EPC Contractor supervision.

**3.2 SPV**

SPV Management has to ensure sufficient and qualified resources are allocated on an ongoing basis to achieve effective implementation of actions, measures and monitoring activities under SPV's responsibility. SPV Management is responsible for:

- Final approval of this plan;
- taking appropriate actions to address major Non-Conformities based on audit reports, performance monitoring reports and on SPV HSE Manager proposed approach.

SPV HSE Manager is responsible for:

- ensuring that this Management Plan is up to date and appropriate to the nature and scale of the the Project and ensuring that this Management Plan is implemented effectively by the EPC Contractor;
- ensuring that action/measures and monitoring activities directly under SPV responsibilities are carried out timely and adequately according to this Management Plan requirements;
- proposing to SPV Management, if necessary, amendments and/or updates to this Management Plan and issuing plan revisions;
- programming inspections and audit activities to ensure the correct implementation of this Management Plan and EPC Contractor procedure(s).
- addressing Non-Conformities through the definition of Preventive/Corrective actions;
- bringing major Non-Conformities immediately to the attention of SPV Management;

**WASTE MANAGEMENT PLAN**

- collecting, organizing and reviewing monitoring data and performance monitoring reports and providing summary results of such reports to SPV Management, to stakeholders and to the Lenders.

**4.0 MANAGEMENT METHODS AND MITIGATION MEASURES****4.1 *General management criteria***

This Waste Management Plan includes the identification of waste streams and management actions including minimization, recycling, collection, storage, treatment and disposal of wastes which will be generated during site preparation and construction phases of the Project.

The Waste Management Plan is developed to identify the measures for minimizing impacts of the wastes generated by the Project.

EPC Contractor and its Subcontractors will fulfil the requirements defined in this Plan by adapting them to their own operations. Each contractor will develop its own procedure(s) with identified waste streams, disposal methods, identification of permit requirement and management actions for the construction phase, and then develop the project specific plans and procedures.

EPC Contractor and its Subcontractors will ensure that the waste disposal strategy developed for the project through their plan and procedures will follow the following handling hierarchy:

- waste avoidance is the most preferable option;
- minimization of quantities and hazards of waste generated is the second preferred option;
- reuse, recovery and recycling will be preferred over treatment of waste;
- disposal will be considered as a last resort.

EPC Contractor and its Subcontractors will follow the Basic Principles for Waste Management:

- Follow-up of wastes with cradle to grave approach;
- Segregation of wastes at source and waste categorization;
- Reuse, recovery and recycling have the priority;
- All wastes should be handled throughout the route and will not be left at site;
- Dumping and burning of wastes are strictly forbidden;
- Waste transportation and disposal must be done via licensed facilities;
- Mixing different waste types is strictly forbidden;
- Waste transportation to the nearest licensed facility to a possible extent.

## WASTE MANAGEMENT PLAN

The wastes generated during Construction phase of the Project will be separately collected and stored on the site and will be disposed according to the requirements provided in the Regulation on Waste Management.

### **4.2 Specific management methods and mitigation measures**

The following table details the management methods and mitigation measures/actions identified for waste management activities in the Construction phase.

For each method and measure/action identified, the table shows:

- The identification code (ID)
- the reference (or source) documents (i.e. ESA, Turkish Regulations, permits, IFC Performance Standards, EBRD Performance Requirements and EHS Guidelines, OPIC or other GIIP)
- frequency/timing of the measure/action, as applicable
- Key Performance Indicator (KPI), if applicable, and related quantitative target or qualitative acceptance criteria;
- related responsibility for implementing the measure/action.

For the measures, actions where no KPI can be identified the cells reports “n.a.” (not applicable). In this case an on/off acceptance criteria will apply; in other words the acceptance criteria set is a qualitative one, such as “the measure/action has been implemented effectively”.

**WASTE MANAGEMENT PLAN**

ID	Source doc.	Mitigation Action/Measure description	Frequency/ Timing	KPI	Target/ Acceptance criteria	Responsibilities
<b>Principles on waste management</b>						
WAM-01	IFC- EHS GL Env. § 1.6 EBRD - PR3 OPIC Turkish Reg. Gaz. No. 29314 02/04/2015	<p><b>Prepare detailed waste management plans</b> based on the principles of avoidance, minimization, reduction, reuse, and recycling, and will define treatment and disposal procedures.</p> <p>The plan will include procedures for collection, handling, storage, transportation, treatment and disposal of each waste stream produced by the whole Project, in particular hazardous waste.</p> <p>The plan will address all aspects of the waste management cycle including identification of responsibilities and roles, control and checks, and monitoring procedures. The plan will be developed based on Turkish legislation and should account for IFC EHS Guidelines, IFC and EBRD waste management regulations and guidance.</p> <p><b>Ascertain and document</b> final waste destination and standards at which disposal sites are operated.</p> <p>For waste stream, these plans will include, inter alia, identification of waste streams and associated disposal mechanisms, procedures for handling and disposing, monitoring of related streams and management of any waste-related community health or safety risks.</p>	ongoing	n.a.	Plan/procedure developed	EPC Contractor

**WASTE MANAGEMENT PLAN**

ID	Source doc.	Mitigation Action/Measure description	Frequency/ Timing	KPI	Target/ Acceptance criteria	Responsibilities
WAM-02	IFC- EHS GL Env. § 1.6 OPIC EBRD - PR3	<p><b><u>Avoid the generation of hazardous and non-hazardous waste materials.</u></b> Where waste generation cannot be avoided, <b>reduce</b> the generation of waste, and recover and reuse waste in a manner that is safe for human health and the environment.</p> <p>Where waste cannot be recovered or reused, <b>treat, destroy, or dispose</b> of it in an environmentally sound manner that includes the appropriate control of emissions and residues resulting from the handling and processing of the waste material.</p> <p><b><u>Use contractors that are reputable and legitimate enterprises licensed</u></b> by the relevant government regulatory agencies to dispose hazardous wastes and obtain chain of custody documentation to the final destination.</p> <p><b><u>Ascertain</u></b> whether the waste disposal facilities are set up and operated to acceptable environmental standards and where they are located. This has to be done through dedicated audits of potential disposal sites, to be carried out as part of the contracting process and before any waste disposal facilities and relevant waste contractors are retained. Where waste disposal facilities do not meet these minimum standards, find alternative disposal options, including the possibility of developing adequate temporary storage facilities (for the meanwhile) or their own recovery or disposal facilities at the project site.</p>	Preconstruction and construction phases	n.a.	Consistence to Waste Management Plan  Waste disposal facilities audited before being contracted and meeting minimum environmental standards	EPC Contractor
WAM-03	Turkish Reg. Gaz. No. 29314 02/04/2015	<p>Collect and store the wastes separately on the site and dispose according to the requirements provided in the <b><u>Regulation on Waste Management.</u></b></p> <p>Based on Article 9, Fill the Waste Declaration Form indicated in the regulation make approved every year between January and March with the previous year's information using the web based program prepared by the Ministry of Environment and Urbanization and store a copy for five years in case of an audit.</p>	Construction phase	Records correctly filled in and available for 5 years	Compliance with regulatory requirements	EPC Contractor

**WASTE MANAGEMENT PLAN**

ID	Source doc.	Mitigation Action/Measure description	Frequency/ Timing	KPI	Target/ Acceptance criteria	Responsibilities
<b>Management controls for specific types of waste</b>						
WAM-04	ESA – App. B – 4.1.2. Turkish Reg. Gaz. No. 29314 02/04/2015	<b><u>Domestic solid waste</u></b> Collect the domestic solid waste from the personnel in closed containers located at various points of the camp areas. Transport the solid waste at certain intervals to solid waste collection system, which have been audited during the contracting process and considered acceptable as meeting minimum environmental standards and Turkish Regulation. Dispose waste of according to the Regulation on Waste Management. The municipality landfill areas will be inspected and verified to have required capabilities for the disposal of Project domestic solid waste.	Construction phase	n.a.	Compliance with regulatory requirements Solid waste landfills audited before sending waste and meeting minimum environmental standards	EPC Contractor
WAM-05	ESA – App. B – 4.1.3. Turkish Reg. Gaz. No. 28035, 24/08/2011	<b><u>Packaging waste</u></b> Collect the packaging paper, plastic and glass bottles i.e. packaging wastes separate from other wastes without considering material used and the source of the material and send to licensed recycling facilities according to Article 23 of the Regulation on Control of Packaging Waste.	Construction phase	n.a.	Compliance with regulatory requirements	EPC Contractor
WAM-06	ESA – App. B – 4.1.5. Turkish Reg. Gaz. No. 25569, 31/08/2004	<b><u>Waste batteries and accumulators</u></b> Maintain the vehicles to be used in land preparation and construction period of the project in authorized services. In cases where the maintenance process of the vehicles used in the project are carried out within the facility, store the possible waste batteries that come out in a closed containers with a leak-proof floor according to the Regulation on Control of Waste Batteries and Accumulators and deliver the batteries to the collection points established by the municipalities or by the companies distributing or selling batteries and deliver the waste accumulators (vehicle batteries) to the temporary storage areas established by the companies distributing or selling accumulator products and maintenance companies.	Construction phase	n.a.	Compliance with regulatory requirements	EPC Contractor

**WASTE MANAGEMENT PLAN**

ID	Source doc.	Mitigation Action/Measure description	Frequency/ Timing	KPI	Target/ Acceptance criteria	Responsibilities
WAM-07	ESA – App. B – 4.1.6. Turkish Reg. Gaz. No. 25833, 22/07/2005	<p><b>Medical Wastes</b></p> <p>Place the <b>medical wastes</b> inside red plastic bags which are resistant to tearing, piercing, bursting and carrying; originally from moderate density polyethylene material, with double bottom seam and without pleats, with double ply thickness of 100 microns, with at least 10 kg holding capacity, carrying on both sides the warning symbol of "International Biohazard" and "ATTENTION! MEDICAL WASTE" with at an easily readable size. Fill the bags to a maximum of 3/4 capacity and close tightly and when necessary make double bagging having the same specifications in order to ensure absolute leak-proofing.</p> <p>Collect the medical wastes that have cutting and piercing properties separately from the other waste in a plastic or laminated cardboard having the same specification as piercing, tearing, breaking and bursting resistant, waterproof and leak-proof, could not be opened or tampered with, having the warning symbol of "International Biohazard" and warning of "ATTENTION! CUTTING AND PIERCING MEDICAL WASTE". Fill these collection containers a maximum of 3/4, close tightly and put into red plastic bags and once the waste boxes are filled, do not compress, open empty or recycle absolutely.</p> <p>Dispose the medical wastes collected in the camp sites according to the points indicated in the regulations, by delivering to the nearest health institution or municipal medical waste collection system. Regularly record the amount of medical waste that are produced under the scope of the project according to the Regulation on Control of Medical Waste, send to the Provincial Directorate of Environment and Urbanization, keep this information for at least three years and keep open to examination of the Ministry upon request.</p>	Construction phase	n.a.	Compliance with regulatory requirements	EPC Contractor



**WASTE MANAGEMENT PLAN**

ID	Source doc.	Mitigation Action/Measure description	Frequency/ Timing	KPI	Target/ Acceptance criteria	Responsibilities
WAM-08	ESA – App. B – 4.1.7. Turkish Reg. Gaz. No. 26952, 30/07/2008	<p><b>Waste oils</b></p> <p>Maintain the vehicles to be used in land preparation and construction period of the project in authorized services. In cases where the maintenance process of the vehicles used in the project are carried out within the facility, collect the <b>waste oil</b> in a closed temporary waste storage area with leak-proof floor and covered with a shelter. The waste oils will be collected in separate containers and different kinds of oils will not be mixed for storage. Send the oil collected to a licensed waste oil recovery company or licensed incinerators according to the Regulation on Control of Waste Oil.</p> <p>The recording of the waste of transported to the licensed facilities will be in accordance with the legislation including:</p> <ul style="list-style-type: none"> <li>- fill the National Waste Transportation Form,</li> <li>- record the amounts produced and fill the Waste Oil Declaration Form in Appendix-2 of the Regulation</li> <li>- send to the Provincial Directorate of Environment and Urbanization until the end of February of the following year</li> </ul>	Construction phase	n.a.	Compliance with regulatory requirements	EPC Contractor
WAM-09	ESA – App. B – 4.1.7. Turkish Reg. Gaz. No. 29378, 06/06/2015	<p><b>Waste vegetative oil</b></p> <p>Collect the <b>waste vegetative oil</b> separate from other wastes and dispose according to the provisions given in the Regulation on Control of Waste Vegetative Oil. After delivering the waste vegetative oils to licensed companies fill the National Waste Declaration form and submit to the authorities as described in the regulation.</p>	Construction phase	n.a.	Compliance with regulatory requirements	EPC Contractor

**WASTE MANAGEMENT PLAN**

ID	Source doc.	Mitigation Action/Measure description	Frequency/ Timing	KPI	Target/ Acceptance criteria	Responsibilities
WAM-10	ESA – App. B – 4.1.1. Turkish Reg. Gaz. No. 25406, 18/03/2004	<p><b><u>Excavation wastes</u></b></p> <p>These wastes will be disposed in accordance with the Regulation on Control of Excavation Soil and Construction Debris.</p> <p>The excavation soil that will be taken out during construction phase would at first be accumulated in the construction site in order to be used for backfilling. Remaining excavation soil would be stored on an appropriate location in the construction site and sent to the closest licensed soil disposal site.</p> <p>During these operations, the following provisions indicated in the Regulation regarding the storage of the top soil would be respected:</p> <ul style="list-style-type: none"> <li>• The top soil will be stored in an appropriate area to prevent from being scattered by wind or water streams or other factors, from being mixed with foreign materials and from being deteriorating with respect to original characteristics and necessary protection measures will be taken;</li> <li>• The area where the top soil would be stored will not have more than 5% inclination;</li> <li>• During the storage of the top soil, possible losses will be prevented and the quality of the soil will be maintained;</li> <li>• If the top soil will be kept exposed for a long time, it will be ensured that surface is covered with fast growing plants.</li> </ul>	Construction phase	n.a.	Compliance with regulatory requirements	EPC Contractor

**WASTE MANAGEMENT PLAN**

ID	Source doc.	Mitigation Action/Measure description	Frequency/ Timing	KPI	Target/ Acceptance criteria	Responsibilities
WAM-11	ESA – App. B 4.1.8. Turkish Reg. Gaz. No. 26357, 25/11/2006	<p><b>Waste tires</b> will be stored and disposed in line with the specific regulation on the waste tires.</p> <p>In particular the provisions related to the storage and disposal included in Article 5 (especially item a, e and ğ) will be complied with:</p> <ul style="list-style-type: none"> <li>recovery and disposal process without any danger of air, water, soil, plants and animals, not to make any negative impacts on environment through noise and odor and to protect the natural environment and protection zones (Item a).</li> <li>Recovery of waste tires is essential.</li> <li>Tire manufacturers take all the precautions to make the lifetime longer at design stage.</li> <li>Import of waste tires is forbidden.</li> <li>During export and transit process, the provisions of Basel Convention are applied.</li> <li>It is strictly forbidden to use the waste tires as heating material, to use in valleys as filling material, to accept and store the wastes in landfills. <u>Otherwise administrative or penal sanction is applied (Item e).</u></li> <li><u>Waste tires are delivered to licensed vehicles without fee. It is forbidden to transport the waste tires except licensed vehicles (Item ğ).</u></li> </ul>	Construction phase	n.a.	Compliance with regulatory requirements	EPC Contractor
WAM-12	Turkish Reg. Gaz. No 27967, 17/06/2011	<p><b>Iron and steel</b> wastes will be temporarily stored at site and be disposed by licensed recycling companies in line with the legislation.</p> <p>In particular the provisions related to the storage and disposal included in Article 5 will be complied with:</p> <ul style="list-style-type: none"> <li>recovery of the non-hazardous wastes to provide contribution to economy and to minimize the amount of waste sent to final disposal.</li> <li>recovery of the non-hazardous wastes is strictly forbidden except in the facilities licensed from the Ministry.</li> <li>the wastes not to have possibility to recover are disposed according to one of the procedures defined in the Regulation on Waste Management.</li> </ul>	Construction phase	n.a.	Compliance with regulatory requirements	EPC Contractor

**WASTE MANAGEMENT PLAN**

ID	Source doc.	Mitigation Action/Measure description	Frequency/ Timing	KPI	Target/ Acceptance criteria	Responsibilities
WAM-13	Turkish Reg. Gaz. No. 28300, 22.05.2012, 26891, 30/05/2008	<p><b>Waste Electrical and Electronic Goods</b> will be stored and disposed in line with the specific regulation on waste electrical and electronic goods.</p> <p>In particular the provisions related to the storage and disposal included in Article 5 and Article 11 will be complied with:</p> <ul style="list-style-type: none"> <li>• It is forbidden to contain lead (Pb), mercury (Hg), chromium (Cr VI), polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE) and cadmium in the electrical goods and lighting equipment for domestic purpose, included in 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> and 10<sup>th</sup> class in Appendix 1/A of the regulation excluding the exceptions in Appendix-2.</li> <li>• It is promoted to use recyclable material especially in new-designed products if it is technically possible.</li> <li>• It is prioritized to reuse the waste electrical and electronic goods as a whole.</li> <li>• It is provided to process the collected waste electrical and electronic goods to get the recycling and recovering ratios given in Item 16</li> <li>• If it is not possible to process the waste electrical and electronic goods partially or as a whole, disposal is permitted.</li> <li>• Recycling, recovering and disposal of waste electrical electronic goods are done in facilities with environmental license</li> <li>• Incineration being contrary to laws, minimization or disposal to the receiving body of the wastes occurred during the process of the waste electrical and electronic goods are forbidden.</li> <li>• Compensations and other costs to recover the environmental damages are belonging to people responsible for the management of waste electrical and electronic goods according to "polluter pays" principle.</li> <li>• Electrical and electronic good users are responsible to collect the wastes separate from the other domestic wastes according to the principles defined by the manufacturers and municipalities.</li> <li>• Electrical and electronic good users are responsible to transport or provide to be transported the wastes to collection areas constructed by municipalities, manufacturers or processing plants.</li> </ul>	Construction phase	n.a.	Compliance with regulatory requirements	EPC Contractor

**WASTE MANAGEMENT PLAN**

ID	Source doc.	Mitigation Action/Measure description	Frequency/ Timing	KPI	Target/ Acceptance criteria	Responsibilities
<b>Storage and transportation of waste</b>						
WAM-14	Turkish Reg. Gaz. No. 29314, 02/04/2015	<p>Ensure that the followings provisions of the regulations during the <b>storage of wastes</b> are respected:</p> <ul style="list-style-type: none"> <li>• Keep record on the amount of the waste and label the waste according to the internationally accepted standards required by the environmentally licensed recycling or disposal facility that receive the waste.</li> <li>• Fill the Waste Declaration Form indicated in the regulation make approved every year between January and March with the previous year's information using the web based program prepared by the Ministry of Environment and Urbanization and store a copy for five years.</li> <li>• Store the waste temporarily in durable, leak-proof, safe containers at international standards placed on a concrete area inside the camp area away from the buildings of the camp, indicate the quantity and the stored date on the container. If the containers are damaged, transfer the waste to other containers having the same specifications, always keep containers closed and store the wastes so that the waste does not chemically react.</li> <li>• Provide "Hazardous Waste Liability Insurance" for temporary hazardous waste storage against any accidental damage to third parties.</li> <li>• Take all the measures for the health and safety of the employees responsible for the collection, transportation and temporary storage of the waste within the facility.</li> </ul>	Construction phase	Storage days	Compliance with regulatory requirements	EPC Contractor
WAM-15	ESA – App. B 6	Visually inspect and record the waste storage and collection and the correct utilization of temporary disposal areas.	Daily	Waste disposal records	n.a.	EPC Contractor
WAM-16	Turkish Reg. Gaz. No. 28801, 24/10/2013	<u>The transfer and transportation of any hazardous wastes will be in line with the Regulation on the <b>Transportation of Dangerous Goods by Road</b>. The hazardous wastes will be transported by licensed vehicles/companies to the licensed facilities. The characteristics of the waste, amount, and other designations will be recorded, archived and submitted to the authorities in line with the regulation.</u>	Construction phase	n.a.	Compliance with regulatory requirements	EPC Contractor

**WASTE MANAGEMENT PLAN**

ID	Source doc.	Mitigation Action/Measure description	Frequency/ Timing	KPI	Target/ Acceptance criteria	Responsibilities
<b>Training</b>						
WAM-17	ESA – App. B 6 GIIP	<ul style="list-style-type: none"> <li>• Define the training requirements for the personnel on waste minimization, recycling and disposal</li> <li>• Ensure that all employees are informed on the requirements of this management plan and health and safety procedures.</li> </ul>	Preconstruction and construction phases	Trained personnel %	90% (i.e. only motivated exceptions allowed, e.g. presence of personnel for which training is planned in the short term)	EPC Contractor

## **WASTE MANAGEMENT PLAN**

### **5.0 MONITORING**

The following table details the monitoring activities identified for waste management issues in the Construction phase.

For each monitoring activity and measure/action identified, the table shows:

- The identification code (ID.)
- the reference (or source) documents (i.e. ESA, Turkish standard, permits, IFC Performance Standards and EHS Guidelines, EBRD Performance Requirements, OPIC or other GIIP);
- frequency/timing of the measurement;
- Key Performance Indicator (KPI), and related quantitative target, if the target consist of a regulatory limit this will be indicated;
- the related responsibility for implementing the monitoring activity.

**WASTE MANAGEMENT PLAN**

ID.	Source doc.	Monitoring Action/Measure description	Frequency/ Timing	KPI	Target/ Acceptance criteria	Responsibilities
WAM-18	ESA – App. B – 3  ESA – App. B – 6  GIIP	Record and aggregate data on amounts of all types of wastes generated at the Construction site:  <ul style="list-style-type: none"> <li>• Domestic solid waste</li> <li>• Excavation and demolition wastes</li> <li>• Packaging waste</li> <li>• Iron and steel</li> <li>• Waste batteries and accumulators</li> <li>• Waste tires</li> <li>• Waste oil</li> <li>• Waste vegetative oil</li> <li>• Medical wastes</li> <li>• Hazardous wastes (detail for each type generated)</li> </ul>	Daily for solid wastes medical wastes and hazardous wastes and Monthly for the other wastes	Amounts [kg]	All waste tracked	EPC Contractor for providing aggregated monthly data  SPV for collecting data
WAM-19	ESA – App. B – 3  ESA – App. B – 6  GIIP	In relation to the above generated waste, record and aggregate data on amounts of wastes:  <ul style="list-style-type: none"> <li>• Sent to landfill</li> <li>• Sent to incineration</li> <li>• Sent to contractors for recycling/recovery</li> </ul>	Monthly	Amounts [kg]	All waste tracked	EPC Contractor for providing aggregated monthly data  SPV for collecting data
WAM-20	ESA Section 9.1.2.4	In case of a critical action or activity, monitor soil quality for any possibility of contamination	When a critical action or activity occurs	Soil quality standards	no contamination or no additional contamination by construction activities	EPC Contractor



**WASTE MANAGEMENT PLAN****6.0 AUDIT AND REVIEW**

The correct implementation of this Management Plan is verified through internal inspections and audits to be carried out according to the requirements included in “Internal audit” of the “ESMS Manual”.

The schedule, the frequency, the scope and objectives of the audit as well as the responsible internal auditors are indicated in the Audit Program that is developed and updated by SPV HSE Department.

Internal auditing will address:

- The correct implementation of this Management Plan;
- The correct development and implementation of EPC Contractor Procedure(s);
- The correct and timely implementation of an auditing and review system by the EPC Contractor;
- Each of the point indicated in the tables in section 4 (mitigation actions/measures) and 5 (monitoring/measurements) of this plan.

During the inspections, the audit team will address in particular:

- All waste storage facilities have to be frequently inspected including drainages, secondary containment measures, status of impermeable coating materials, signaling, etc.);
- The area surrounding the waste storage facilities have to be frequently inspected for evidences of past/current spills
- The auditor should verify presence of qualified personnel when waste transfer/transportation and disposal operation are carried out; at least one operation should be verified throughout the entire process;
- Interviews with personnel should be also take place in order to ensure that the personnel is qualified and trained;
- Main OHS aspects (such as wearing of PPE, presence of firefighting equipment, presence of odors and of sufficient ventilation of the storage areas, compatibility of the waste stored in the same area, layout of the storage) have to be as well verified.

SPV Management reviews results of inspections and audits and the progress of the Preventive/Corrective actions and takes additional appropriate actions if necessary according to the indications included in “Management Review” of the “ESMS Manual”.

**7.0 REPORTING**

Evidences and results of the monitoring (measurements) activities (detailed in section 5 of this plan) have to be described in detail in appropriate monitoring reports. This section of the plan provides instructions and requirements for this reporting activity.

**WASTE MANAGEMENT PLAN**

Evidences of the implementation of the mitigation actions/measures (detailed in section 4 of this plan) and related results are collected through inspection and auditing activities as detailed in section 6 “Audit and Review” of this plan; these evidences are described in the audit reports.

Reporting activities for this management plan is mainly related to the amounts of wastes produced on site, and consist of:

- Recording of the amount of each type of waste produced in the Construction site (EPC Contractor);
- Compiling of the quantity data by type of waste on a monthly basis (EPC Contractor);
- Communication of the data to SPV (EPC Contractor);
- Collection, aggregation and recording of the data in the “Environmental data collection tool” (SPV).

These data together with the results of the inspection and audit activities will be summarized in a Report on a six monthly basis that will be made available to stakeholders which is under the responsibility of SPV. This report constitutes the basis for the monitoring report to be available for the Lenders.