



**TOROS MERAM RENEWABLE ENERGY PRODUCTION  
INC.**

**MERAM BIOGAS POWER AND ORGANOMINERAL  
FERTILIZER PRODUCTION PLANT**

**Environmental and Social  
Management and Monitoring Plan**

**(ESMMP)**

**(Plan No:MRM-PLN-HSSE-001)**



**MGS PROJECT CONSULTANCY  
ENGINEERING TRADE LIMITED CO.**

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## Abbreviations

<b>AoI</b>	Area of Influence
<b>AIIB</b>	Asian Infrastructure and Investment Bank
<b>CH</b>	Cultural Heritage
<b>CSP</b>	Communities and Social Performance
<b>DCC</b>	Document Control Center
<b>EIA</b>	Environmental Impact Assessment
<b>EDL</b>	Energy Distribution Line
<b>EHSS</b>	Environmental, Health, Safety and Security
<b>ESDD</b>	Environmental and Social Due Diligence
<b>E&amp;S</b>	Environmental and Social
<b>EMRA</b>	Energy Market Regulatory Authority
<b>ESMMP</b>	Environmental and Social Management and Monitoring Plan
<b>ESMS</b>	Environmental and Social Management System
<b>ESS</b>	Environmental and Social Standards
<b>EU</b>	European Union
<b>HS</b>	Health and Safety
<b>HSE</b>	Health, Safety, and Environment
<b>IFC</b>	International Finance Corporation
<b>ISO</b>	International Standards Organization
<b>KPI</b>	Key Performance Indicator
<b>Leq</b>	Equivalent Continuous Sound Level
<b>LAeq</b>	A-weighted, Equivalent continuous Sound Level
<b>MSDS</b>	Material Safety Data Sheet
<b>MWe</b>	Megawatt Electric
<b>NGO</b>	Non-Governmental Organization
<b>OG</b>	Official Gazette
<b>OHS</b>	Occupational Health and Safety
<b>PAP</b>	Project Affected People
<b>Project Company</b>	Toros Meram Yenilenebilir Enerji Üretim A.Ş.
<b>PS</b>	Performance Standard
<b>RAMEN</b>	Regulation on Assessment and Management of Environmental Noise
<b>RCIAP</b>	Regulation on Control of Industrial Air Pollution
<b>RAQAM</b>	Regulation on Air Quality Assessment and Management
<b>SEP</b>	Stakeholder Engagement Plan
<b>SoW</b>	Scope of Work
<b>SRS</b>	Social Responsibility Staff
<b>The Project</b>	Meram Biogas Power and Organomineral Fertilizer Production Plant Project
<b>Toros Energy</b>	Toros Meram Yenilenebilir Enerji Üretim A.Ş.
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization



**WHO**

World Health Organization



## 1 INTRODUCTION

This Environmental and Social Management and Monitoring Plan (“ESMMP”) is prepared to complete to the studies conducted for assessment of environmental and social impacts of the Project as per the IFC Performance Standards (“PSs”) and Asian Infrastructure and Investment Bank (AIIB) Environmental and Social Standards. The reference number of this document is MRM-PLN-HSSE-001.

### 1.1 Background

Meram Biogas Power and Organomineral Fertilizer Production Plant Project with an installed capacity of 6.17 MWe, hereinafter referred as “the Project”, is planned to be established and operated within borders of Çomaklı Neighborhood, Meram District of Konya Province. Toros Meram Yenilenebilir Enerji Üretim A.Ş. (“Toros Energy”) is the Project Company. The Project consists of Waste Acceptance and Raw Material Preparation System, Anaerobic Digestion System and Heat Center, Gas Cleaning, Gas Conditioning and Storage System, Energy Generation System (Cogeneration), Solid Fertilizer Composting and Drying System, Liquid Fertilizer Production System, and a Wastewater Treatment Plant.

### 1.2 Scope

The scope of this document comprises all the activities to be undertaken during land preparation, construction, commissioning, operation and maintenance phases of the Project. This document must be accepted as a “living” document and must be developed, improved, and devolved as per changing needs and circumstances of the Project. Therefore, Toros Energy has endeavored to develop an approach that responds to the need for some flexibility regarding future roles and responsibilities for implementation of various compliance tasks during construction and operational phases of the Project.

The requirements and commitments set out in this plan are directly applicable to all Project employees including the personnel of Contractors/Sub-contractors.

This ESMMP involves the following Management and Monitoring Plans prepared as part of this management plan:

- Air Quality Management Plan
- Noise Management Plan
- Contractor Management Plan
- Cultural Heritage Management Plan
- Community Health and Safety Management Plan



Additionally, this ESMMP overlaps and cross-linkages the other Management Plans and Procedure developed for the Project:

- Stakeholder Engagement Plan (SEP) (MRM-PLN-SOC-001),
- Internal and External Grievance Mechanism Procedure (MRM-PRC-SOC-001),
- Waste Management Plan (MRM-PLN-ENV-001),
- Traffic and Transportation Management Plan (MRM-PLN-HSS-001),
- Occupational Health and Safety Management Plan (MRM-PLN-HSS-002).

This Environmental and Social Management and Monitoring Plan has been developed for land preparation, construction and operational phases of the Project. It is based on the ISO 14001 Environmental Management System and is in line with IFC PSs and guidelines. The “Plan-Do-Check-Act” principle of IFC that has also been adopted by Toros Energy is given in **Hata! Başvuru kaynağı bulunamadı..**

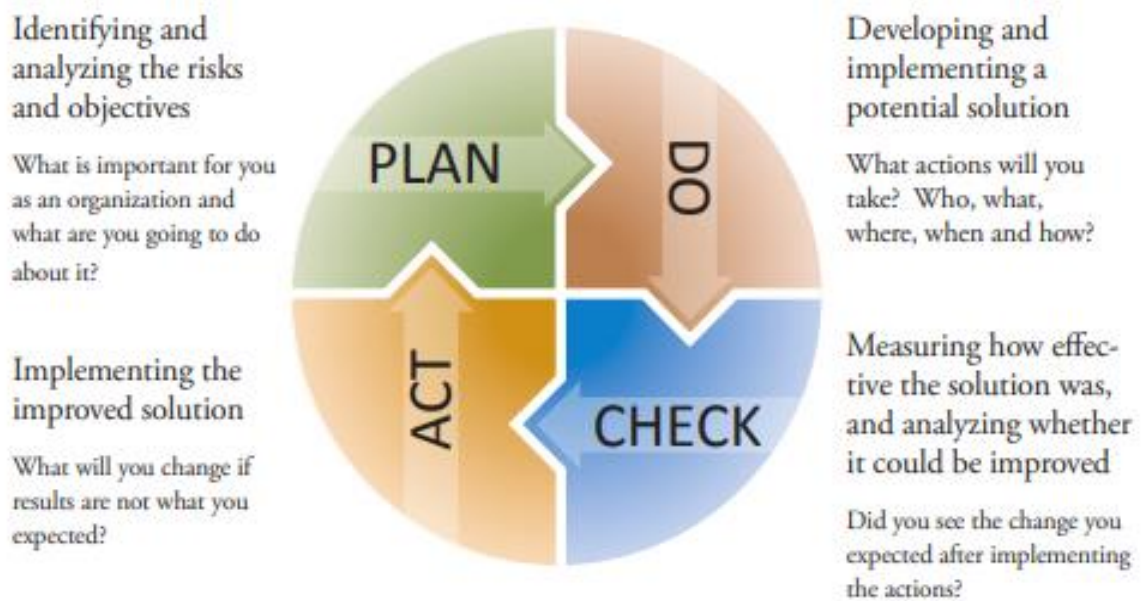


Figure 1-1. "Plan-Do-Check-Act" Principle Retrieved from: IFC ESMS Implementation Handbook

A solid, functioning Environmental and Social Management System (ESMS) is made up of interrelated elements. The following figure represents the nine elements of an effective ESMS each of which are vital to the ESMS because they help to assess, control, and continually improve environmental and social performance.



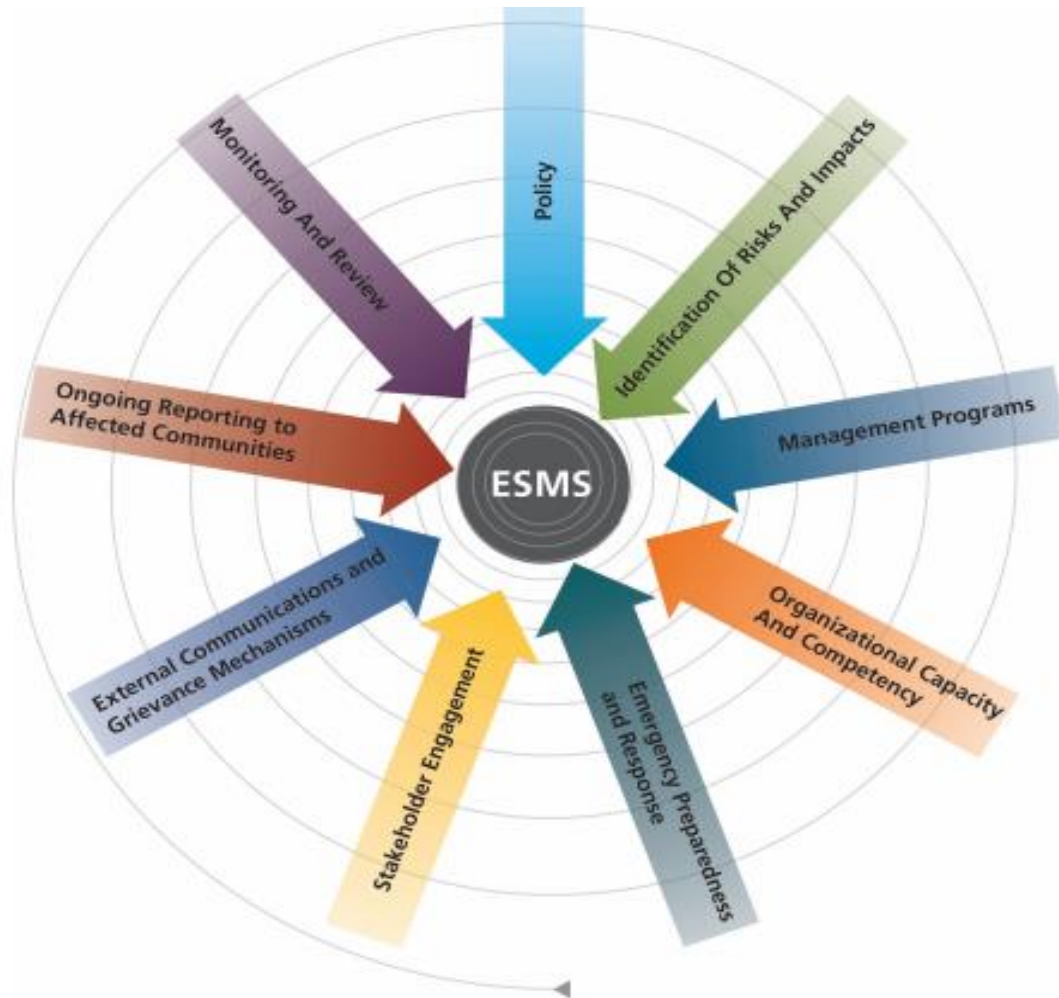


Figure 1-2. Elements of ESMS

### 1.3 Purpose

The purpose of this ESMMP is to:

- Outline the environmental and social goals of the Project,
- Present an overview of the E&S Management System that will be implemented to ensure a systematic and effective execution of the environmental and social commitments relevant to the construction and operational phases of the Project,
- Provide a detailed explanation of relative roles and responsibilities of Toros Energy and its Contractors/Sub-contractors,
- Establish programs to meet the objectives and targets, oriented to continuous improvement,
- Ensure the awareness and competence of personnel regarding policies, objectives and targets,
- Conduct periodic internal and external audits, inspection, and monitoring; and



- Review the progress in achieving the environmental and social objectives and targets; and make improvements.

Therefore, this plan provides assurance that E&S mitigation, management and monitoring measures are fully accounted for, and will be implemented through the lifetime of the Project in accordance with the commitments made to date.

## 1.4 Definitions

**Contractor(s):** Refers to the contractors of the Project.

**Area of Influence:** Area potentially affected by impacts from project activities, assets, and facilities.

**Audit:** System of gathering information to determine the degree of compliance with applicable policies, standards, or regulations.

**Environmental and Social Objective:** Overall environmental and/or social goal, arising from the environmental and social policy, that an organization sets itself to achieve, and which is quantifiable where practicable.

**Environmental and Social Target:** Detailed performance requirement, quantified where practicable, applicable to the organization or parts thereof, that arises from the environmental or social objectives and that needs to be set and met in order to achieve those objectives.

**ISO 14001:** International Standards Organization – Environmental Management Systems: Requirements with guidance for use.

**Key Performance Indicator:** An indicator that is measured against a target, with the expectation that the target will be met, indicates compliance with the project requirements.

**Measure:** An indicator of the volume or quantity of an impact.

**Monitoring:** Observation and sampling to obtain information to establish baseline and trends.

**Shall and Must:** Indicates mandatory requirements.

**Should:** Indicates that a provision is not mandatory but recommended as good practice.

**Sub-contractor:** Company working under a contract to a contractor.

**Work:** Any and all activities, services and materials provided by the contractor, subcontractors and suppliers.



## 2 ROLES AND RESPONSIBILITIES

Tables presented in this section involves roles and responsibilities separately for each management subject under the relevant subsections.

### 2.1 Air Quality Management

Table 2-1. Air Quality Management Roles and Responsibilities

Roles	Responsibilities
<b>General Manager / Board of Manager</b>	<ul style="list-style-type: none"> <li>• Approves this Plan,</li> <li>• Ensures that this Management Plan will be applied during the lifetime of the Project,</li> <li>• Determines policies and targets.</li> </ul>
<b>Operational Manager</b>	<ul style="list-style-type: none"> <li>• Coordinates with parties for implementation of the procedure.</li> </ul>
<b>Health, Safety and Environment (HSE) Manager</b>	<ul style="list-style-type: none"> <li>• Ensures Project compliance with the Project Standards and other requirements set out in this Plan</li> <li>• Overall responsibility for Plan scope and implementation</li> <li>• Responsible of development, monitoring and revision of this Plan,</li> <li>• Responsible for training (including general awareness material e.g. toolbox talks) of site personnel</li> <li>• Reports all hazards, non-conformances and incidents</li> <li>• Ensures all personnel including management level be aware of air quality management and its requirements,</li> <li>• Coordinates air quality during construction and operation phase,</li> <li>• Ensures that air quality monitoring is undertaken as set out in applicable Management Plans and Procedures,</li> <li>• Works with Social Responsibility Staff to address any off-site air quality issues and/or grievance procedure,</li> <li>• Undertakes periodic audits and inspections of the operational areas to monitor performance against the requirements of this Plan during construction phase,</li> <li>• Provides a system for monitoring the types and quantities of pollutions on the site,</li> <li>• Ensures that all personnel are fully trained in air quality management practices.</li> </ul>
<b>Social Responsibility Staff (SRS)</b>	<ul style="list-style-type: none"> <li>• Maintains engagement and liaison with the local communities during construction and operation phases</li> <li>• Reports all hazards, non-conformances and complaint related with the Project and contractor to HSE Manager</li> <li>• Responsible for management of grievance procedure.</li> </ul>

Roles	Responsibilities
<b>Site Engineers</b>	<ul style="list-style-type: none"> <li>• Provide oversight and conduct routine inspections on site regarding air quality,</li> <li>• Work to ensure relevant activities are in accordance with the Management Plan and related Procedures.</li> </ul>
<b>Contractors / Subcontractors</b>	<ul style="list-style-type: none"> <li>• Ensure that relevant activities are undertaken in accordance with this Management Plan and related Procedures</li> <li>• Ensure that all personnel are fully trained in air quality management</li> <li>• Avoid performing activities which unnecessarily generate dust or emissions.</li> </ul>

## 2.2 Noise Management

This section outlines key roles and responsibilities related to the noise management issues.

Table 2-2. Noise Management Roles and Responsibilities

Roles	Responsibilities
<b>General Manager / Board of Manager</b>	<ul style="list-style-type: none"> <li>• Ensures this plan will be applied during the lifetime of the Project,</li> <li>• Provides necessary resources for the implementation of the procedure.</li> </ul>
<b>Operational Manager</b>	<ul style="list-style-type: none"> <li>• Has overall responsibility for the implementation of Noise Management by fulfilling project requirements.</li> </ul>
<b>Health, Safety and Environment (HSE) Manager</b>	<ul style="list-style-type: none"> <li>• Ensures Project compliance with the Project Standards and other requirements set out in this Plan,</li> <li>• Overall responsibility for Plan scope and implementation,</li> <li>• Development, monitoring and revision of this Plan,</li> <li>• Responsible for training (including general awareness material e.g. toolbox talks) of site personnel,</li> <li>• Reports all hazards, non-conformances and incidents,</li> <li>• Coordinates noise management during construction and operation phase,</li> <li>• Ensure that all incidents, near misses, complaints are reported and dealt with effectively,</li> <li>• Works with Social Responsibility Staff to address any off-site noise issues and/or grievance procedure,</li> <li>• Provides a system for monitoring the types and quantities of pollutions on the site,</li> <li>• Undertake periodic audits and inspections of the operational areas to monitor performance against the requirements of this Plan during construction phase,</li> <li>• Implements the requirements of noise management.</li> </ul>

Roles	Responsibilities
<b>Social Responsibility Staff (SRS)</b>	<ul style="list-style-type: none"> <li>• Maintains engagement and liaison with the local communities during construction and operation phases,</li> <li>• Reports all hazards, non-conformances and complaints related with the social aspects of the Project,</li> <li>• Management of grievance procedure.</li> </ul>
<b>Site Engineers</b>	<ul style="list-style-type: none"> <li>• Provide oversight and conduct routine works to ensure relevant activities are in accordance with the Management Plan and related Procedures</li> </ul>
<b>Contractors / Subcontractors</b>	<ul style="list-style-type: none"> <li>• Ensure that relevant activities are undertaken in accordance with this Management Plan and related Procedures</li> <li>• Ensure that all personnel are fully trained in noise management,</li> <li>• Report any activities which are causing unnecessary noise to HSE Manager,</li> <li>• Avoid performing activities which unnecessarily generate noise.</li> </ul>

## 2.3 Contractor Management

Key roles and responsibilities related to the contractor management is given in following table.

Table 2-3. Contractor Management Roles and Responsibilities

Roles	Responsibilities
<b>General Manager / Board of Manager</b>	<ul style="list-style-type: none"> <li>• Ensures this procedure will be implemented during the lifetime of the Project,</li> <li>• Awards of contracts.</li> </ul>
<b>Operational Manager</b>	<ul style="list-style-type: none"> <li>• Ensures the Project compliance with the Project Standards and other requirements set out in this Management Plan,</li> <li>• Implementation of contractor management processes by Departments Responsible Staff of the Project,</li> <li>• Establishing the Scope of Work for each Contractor in consultation with the HSE Manager and Social Responsibility Staff as appropriate,</li> <li>• Supports Procurement on the selection of suppliers,</li> <li>• Supervises the contract works to ensure compliance with the contract and the Project requirements, and schedules,</li> <li>• Develops any additional controls required if the Contractor does not have sufficient skills and experience to address the issues identified in the Scope of Work,</li> <li>• Provides resources to verify that Contractor tools and equipment are sufficient,</li> <li>• Reports to the General Manager about system performance</li> <li>• Manages work close-out.</li> </ul>



Roles	Responsibilities
<b>Administrative Affairs Chef (Procurement and Contractual Works)</b>	<ul style="list-style-type: none"> <li>• Ensures Project compliance with the Project Standards and other requirements set out in this management plan,</li> <li>• Develops the Scope of Work for each Contractor in consultation with HSE Manager and SRS as appropriate,</li> <li>• Develops any additional controls required if the Contractor does not have sufficient skills and experience to address the issues identified in the SoW,</li> <li>• Provides advice to the Contractor to meet the Project Standards and requirements,</li> <li>• Initiates and manages the procurement processes,</li> <li>• Undertakes Bid evaluation, if required,</li> <li>• Provides the administrative support for the contract execution and payments,</li> <li>• Completes the Contractor Performance Score card on a periodic basis,</li> <li>• Participates in Bid evaluation (including verification that HSE and communities hazard identification responses from bidders are completed),</li> <li>• Keeps the Project Department Responsible Staff informed of the progress of mobilization and engagement,</li> <li>• Provides any Contractor MSDS to the Environmental Department and HS Department to ensure that chemicals are registered and permitted for use by the Turkish authorities,</li> <li>• Organizes the Project Induction and Site Induction for the Contractors.</li> </ul>
<b>Health, Safety and Environment (HSE) Manager</b>	<ul style="list-style-type: none"> <li>• Gives advices to the Contractor to meet the Project Standards and requirements,</li> <li>• Assists Procurement with the selection of suppliers,</li> <li>• Supports Administrative Affairs Chef in the development of the Scope of Work for contracts,</li> <li>• Manages contractors EHS compliance with the Project requirements as detailed in the Project ESMS Plans,</li> <li>• Helps the development of the SoW as required,</li> <li>• Participates in Bid evaluation, including verification that HSE and communities hazard identification responses from bidders are completed,</li> <li>• Assists Procurement with the selection of suppliers,</li> <li>• Supports Administrative Affairs Chief in the development of the Scope of Work for contracts,</li> <li>• Completes the Contractor Performance Scorecard periodically,</li> <li>• Confirms that any Contractor chemicals are registered and permitted for use by the Turkish authorities,</li> <li>• Keeps records of MSDS,</li> <li>• Controls and keeps records of medical examinations done for all workers of the Project.</li> </ul>



Roles	Responsibilities
<b>Social Responsibility Staff (SRS)</b>	<ul style="list-style-type: none"> <li>• Help HSE Manager for the development of the Scope of Work, as required,</li> <li>• Record, resolve and close grievances about contractors and procurement related issues.</li> </ul>
<b>Contractors / Subcontractors</b>	<ul style="list-style-type: none"> <li>• Complies with the requirements and standards of this plan,</li> <li>• Fulfills of works under the contract,</li> <li>• Completes the Project awareness and competency training before commencement of work,</li> <li>• Completes medical assessment before commencement of work if required,</li> <li>• Provides necessary vehicles and equipment in good working order and compliance with the Contract requirements,</li> <li>• Provides a listing of any chemicals and MSDS prior to bringing any such materials onto the Project work site.</li> </ul>

## 2.4 Cultural Heritage Management

Table 2-4. Cultural Heritage Management Roles and Responsibilities

Roles	Responsibilities
<b>General Manager / Board of Manager</b>	<ul style="list-style-type: none"> <li>• Ensures this management plan and procedure will be implemented during the Project.</li> <li>• Resources required elements for the implementation of this Plan.</li> </ul>
<b>Operational Manager</b>	<ul style="list-style-type: none"> <li>• Ensures implementation of this Plan by fulfilling the requirements,</li> <li>• Informs the General Manager about the findings.</li> </ul>
<b>Health, Safety and Environment (HSE) Manager</b>	<ul style="list-style-type: none"> <li>• Ensures the Project compliance with the Project Standards and other requirements set out in this Management Plan,</li> <li>• Trains of the employees about cultural heritage and chance find procedure,</li> <li>• Monitors the construction works,</li> <li>• Develops, and revises of this Plan</li> <li>• Conducts cultural heritage assessment processes,</li> <li>• Ensures activities do not disturb cultural heritage sites without appropriate approvals,</li> <li>• Investigates, reports, and follows up of unauthorized site disturbances or procedural breaches,</li> <li>• Ensures that site personnel involved in projects that may disturb cultural heritage receive appropriate training and inductions so that they understand their cultural heritage responsibilities,</li> <li>• Documents this management plan-based issues,</li> <li>• Informs the Operational Manager about the performance of the system.</li> </ul>

Roles	Responsibilities
<b>Social Responsibility Staff (SRS)</b>	<ul style="list-style-type: none"> <li>Coordinates organizations and other stakeholders for implementing this Plan,</li> <li>Supports HSE Manager for the development of the Scope of Work, as required.</li> </ul>
<b>Site Engineers</b>	<ul style="list-style-type: none"> <li>Provide oversight and conduct routine works to ensure relevant activities are in accordance with the Management Plan and related Procedures</li> </ul>
<b>Contractors / Subcontractors</b>	<ul style="list-style-type: none"> <li>Comply with the requirements and standards of this Cultural Heritage Management Plan and Chance Find Procedure,</li> <li>Fulfill the works under the contract,</li> <li>Complete the Project awareness and competency training before commencement of work,</li> <li>Comply with the Project Cultural Heritage Management requirements set out in contractor contracts.</li> </ul>
<b>Workers</b>	<ul style="list-style-type: none"> <li>Being trained about the Project Cultural Heritage Management Plan and Chance Find Procedure through induction training and other training provided.</li> </ul>

## 2.5 Community Health and Safety Management

Table 2-5. Community Health and Safety Management Roles and Responsibilities

Roles	Responsibilities
<b>General Manager / Board of Manager</b>	<ul style="list-style-type: none"> <li>Ensuring that this procedure is implemented during the lifetime of the Project,</li> <li>Determines policies and targets.</li> </ul>
<b>Operational Manager</b>	<ul style="list-style-type: none"> <li>Ensures this procedure will be implemented during the lifetime of the Project,</li> <li>Provides necessary resources for proper implementation,</li> <li>Coordinates with parties for proper implementation of this Management Plan,</li> <li>Determines the project information and social budget of the project,</li> <li>Makes the final decision concerning internal / external, grievances (if needed) in the light of the assessments of Social Responsibility Staff and HSE Manager.</li> </ul>





Roles	Responsibilities
<p><b>Health, Safety and Environment (HSE) Manager</b></p>	<ul style="list-style-type: none"> <li>• Determines the national and international legislations that are applicable to the Project activities and informs the Operational Manager,</li> <li>• Determines the environmental impacts and OHS hazards in accordance with the actions, potential mitigation measures and measures to eliminate any potential social grievances,</li> <li>• Ensures that all provisions in the Contractor engagements regarding HS requirements as per the project standards during the construction stage and to audit the performance of the Contractors,</li> <li>• Makes periodic inspections of the performance of Contractors of its operations during the construction phase,</li> <li>• Determines and provides the necessary training materials for employees,</li> <li>• Provides answers to the OHS-related grievances raised by employees, the local community and local institutions,</li> <li>• Helps SRS for keeping the record of the complaints / suggestions in the Grievance Database with details,</li> <li>• Supports SRS on the first evaluation of the relevance of grievances collected,</li> <li>• Supports SRS for recording all formal and informal engagement activities,</li> <li>• Conducts internal audits / site audits and determining corrective measures if necessary,</li> <li>• Identifies the need for OHS and Environmental trainings,</li> <li>• Examines the HSE response plans and preparations in coordination,</li> <li>• Provides control of Risk management and Crisis management process,</li> <li>• Checks the Environmental records and performance reviews of Contractors,</li> <li>• Ensures drills conducting and provide feedback training programs for corrections of defectiveness within drills,</li> <li>• Monitors the permits and notices regarding OHS and Environment ensures that the necessary permits are obtained,</li> <li>• Determines the environmental impacts in accordance with the actions, potential mitigation measures and measures to eliminate any potential social grievances,</li> <li>• Ensures proper implementation of the Plan.</li> </ul>



Roles	Responsibilities
<p><b>Social Responsibility Staff (SRS)</b></p>	<ul style="list-style-type: none"> <li>• Ensures that all provisions in the Contractor engagements regarding social requirements as per the project standards during the construction stage and to audit the performance of the Contractors,</li> <li>• Keeps the records of the complaints / suggestions in the Grievance Database with details (raised by who, date, status etc.),</li> <li>• Provides answers to the social grievances raised by employees, the local community and local institutions,</li> <li>• Coordinates with HSE Manager on the first evaluation of the relevance of grievances collected,</li> <li>• Provides regular reporting back to the community on the management related to community grievances,</li> <li>• Records all formal and informal engagement activities with local communities in Stakeholder Management System,</li> <li>• Keeps records of the types of leaflets, brochures, newsletters prepared and distributed, by location and this detail will be inserted to stakeholder engagement quarterly reports,</li> <li>• Monitors and records the social responsibility activities carried out in the scope of Project and these records will be inserted to stakeholder engagement quarterly reports,</li> <li>• Forms relationships with the Project stakeholders,</li> <li>• Organizes stakeholder meetings to collect the responses to grievances actively as required,</li> <li>• Gives the feedback to the stakeholders about the results of their grievances through External Grievance Form within 30 calendar days (complainants who have provided their names and contact info will be notified within 5 days that the grievance solution process has started and after the grievance closed),</li> <li>• Carries out coordination and relations with civilian authority, law enforcement, local authority and local community in regard to security</li> </ul>



Roles	Responsibilities
<b>Administrative Affairs Chef</b>	<ul style="list-style-type: none"> <li>• Establishes a Security system and to identify architecture of this system,</li> <li>• Identifies personnel, organization, physical security system, vehicle equipment, material, arms, hardware and logistic requirements of security system and their provision from project management,</li> <li>• Prepares security budget and control the expenses,</li> <li>• Identifies security personnel's duties and requirements, develop measures for personnel trainings with training programs.</li> <li>• Controls whether the trainings are conducted efficiently,</li> <li>• Conducts inspection and general administration of Security Relations Operations,</li> <li>• Composes security personnel's job definition by conducting of analysis.</li> <li>• Identifies criteria for personnel selection and to provide recruitment and organizing of personnel within these criteria,</li> <li>• Identifies performance of security personnel with planned and unplanned inspections.</li> <li>• Proposes, penalties or rewards of personnel from project management with these inspections,</li> <li>• Identifies competence of physical security measures with his inspections and controls, to provide timely and on-site recovery of malfunctions within this process,</li> <li>• Controls whether security personnel affairs are performed appropriately,</li> <li>• Disciplines related personnel regarding documentation of security system's records and reports, their preservation, archive operations, transmission of reports in a timely manner, and implementation of updated and traceable reports and records by their subordinates,</li> <li>• Presents expected results and actual results from activity to project management.</li> </ul>
<b>Contractors / Subcontractors</b>	<ul style="list-style-type: none"> <li>• Comply with the requirements and standards of this plan,</li> <li>• Responsible not to make any commitment in their interaction with the stakeholders beyond their competence</li> <li>• Follow the rules listed in this Management Plan and other relevant Management System documentation of the Project.</li> </ul>

### 3 PROJECT STANDARDS

National regulations, standards and international standards and guidelines applicable to this plan are set out in this section. All the regulations, standards and guidelines regarding the topics of this plan are presented separately.



### 3.1 Applicable Turkish Standards

#### 3.1.1 Air Quality Management

National regulations related to air quality management are as follows:

- Regulation on Air Quality Assessment and Management (RAQAM) (OG no: 26898, date: 06.06.2008)
- Regulation on Control of Industrial Air Pollution (RCIAP) (OG no: 27277, date: 03.07.2009)
- Regulation on Control of Exhaust Gas Emission (OG no: 30004, date: 11.03.2017)

While Appendices I and I-A of RAQAM provide limit values for the specific pollutants such as SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, CO, and O<sub>3</sub>, Appendices of RCIAP provides limit values for the pollutant TOC (Total Organic Compounds as Carbon). Ambient air quality limit values for above-mentioned pollutants listed in Table 3-1 below.

Table 3-1. Turkish Ambient Air Quality Limit Values

Parameter	Duration	Limit Value* (µg/m <sup>3</sup> )
SO <sub>2</sub>	Hourly (cannot be exceeded more than 24 times a year)	350
	24-hour	125
	Annual and winter season (October 1 – March 31)	20
	Short term limit	400
	Long term limit	60
NO <sub>2</sub>	Hourly (cannot be exceeded more than 18 times a year)	200
	Annual	40
	Short term limit	300
	Long term limit	100
PM <sub>10</sub> (Particulate Matter)	24-hour (cannot be exceeded more than 35 times a year)	50
	Annual	40
	Short term limit	300
	Long term limit	150
CO	8-hour daily maximum	10 000
	24-hour	30 000
	Annual	10 000
O <sub>3</sub>	8-hour daily maximum (cannot be exceeded more than 25 times a year)	120
TOC**	Hourly	280
	Short term limit	70

\* Turkish Air Quality Assessment and Management Regulation (RAQAM) (OG no: 26898, date: 06.06.2008)

\*\* Turkish Industrial Air Pollution Control Regulation (RCIAP) (OG no: 27277, date: 03.07.2009)

#### 3.1.2 Noise Management

In Turkey, environmental noise is regulated by the Regulation on Assessment and Management of Environmental Noise (RAMEN) which is put into force on 04.06.2010 with the Official Gazette numbered as 27601. The regulation sets noise limits applicable to various areas (e.g. industrial areas, residential areas or combination of both) for three time periods (day, evening and night-time). Noise limits for construction sites are given in Table 3-2.

Table 3-2. Environmental Noise Limits for Construction Sites

Type of activity (construction, demolition and renovation)	Leq-daytime (dBA) Day (07:00 - 19:00)
Building	70
Road	75
Other sources	70

In accordance with the mentioned regulation, construction activities inside or close to residential areas are not allowed to be conducted within evening and night-time periods unless a consent is obtained from the relevant authorities. The construction working hours for the Project will be between 07:00 to 19:00 which falls in the daytime period. In case construction should be continued beyond the daytime, the nearest settlements should be informed for undertaking construction activities during evening and night-time.

Related to the operation phase of the Project, limit value for noise emission sources of industrial facilities to the surrounding buildings in the Turkish Regulation on the Assessment and Management of Environmental Noise is presented in Table 3-3 which gives maximum allowable environmental noise levels that shall be met at the nearest off-site receptor.

Table 3-3. Environmental Noise Limits for Industrial Facilities (Leq dBA)

Areas	Day (07:00 - 19:00)	Evening (19:00 - 23:00)	Night (23:00 - 07:00)
Areas where sensitive receptors are located including education, culture, health, summer houses and camps	60	55	50
<b>Commercial and residential areas where residential buildings dominate</b>	<b>65</b>	<b>60</b>	<b>55</b>
Commercial and residential areas where workplaces dominate	68	63	58
Industrial areas	70	65	60

The Project area falls within the “Commercial and residential areas where residential buildings dominate” for its operation phase.

### 3.1.3 Contractor Management

All contractors and subcontractors will comply with national legislation and standards in the scope of the Project. The below legislations and other related regulations and requirements which are defined in Environmental and Social Management Plan of the Project will be followed:



- Labour Law No. 4857
- Occupational Health and Safety Law No. 6331
- Regulation on Risk Assessment of Health and Safety
- Regulation on the Health and Safety Conditions on the Use of Work Equipment
- Regulation on the Occupational Health and Safety in Construction Works
- Regulation on Emergencies in Workplaces

### 3.1.4 Cultural Heritage Management

#### 3.1.4.1 Law on Protection of Cultural and Natural Assets

*(Law No: 2863 (published in the Official Gazette dated July 21, 1983))*

The management plan for archaeological heritage mitigation strategies along the project site corridor is to be designed to meet the requirements stipulated in the Law on Protection of Cultural and Natural Assets, Law No. 2863, (July 21, 1983).

The objective of the Law is to set the definitions regarding the movable and fixed cultural and natural assets that shall be protected; to define the procedures and activities to be performed and to establish the formation and responsibilities of the organization that will enforce the required principles and implementation of action decisions on this subject (Official Gazette, 23/7/1983 number 18113).

In the law archaeological sites are classified under three categories. These are:

- 1<sup>st</sup> Degree Archaeological Sites,
- 2<sup>nd</sup> Degree Archaeological Sites,
- 3<sup>rd</sup> Degree Archaeological Sites.

**1<sup>st</sup> Degree Archaeological Sites:** Areas requiring the highest level of protection. They should be preserved except for scientific excavations. The area should be free of any type of buildings and construction. All kinds of construction, excavation, and modification activities are prohibited. However, for exceptional cases such as the necessity for infrastructure construction, Regional Preservation Boards may permit such activities based on the approval of the relevant museum and the head of the scientific excavation team.

**2<sup>nd</sup> Degree Archaeological Sites:** Areas requiring a *high level* of protection. They should be preserved based on the conditions of protection and utilization set by the Regional Preservation Boards. Additional construction is prohibited. As for the 1st Degree Site Degree archaeological sites, for exceptional cases such as the necessity for infrastructure



construction, Regional Preservation Boards may permit such activities based on the approval of the relevant museum and the head of the scientific excavation team.

**3<sup>rd</sup> Degree Archaeological Sites:** Lowest level of the protection area. Construction is permitted based on the decisions of Regional Preservation Boards. Before applying for a construction permit, test pit excavations should be conducted and the outcomes of these excavations should be reviewed by the relevant museum and, if present, the head of the scientific excavation team. ***All excavations are under the supervision of museum experts.*** Reviews should be submitted to Regional Preservation Boards. The Boards may ask for an extension of the areal test pit coverage before taking any decision.

#### **Definitions (Article 3 of the Law numbered 2863)**

**Article 3 of the Protection of Cultural and Natural Entities Law provides the following definitions:**

- *Cultural Assets are all over-ground, underground, or submarine movable and fixed assets related to science, culture, religion, and fine arts, belonging to prehistoric and historic eras.*
- *Natural Assets are the over-ground, underground, or submarine assets that belong to geological eras, prehistoric and historic eras and that shall be protected because of their rarity or specifications and preciousness.*

#### **Obligation to Inform (Article 4 of the Law numbered 2863)**

In case of a chance find of movable or immovable cultural assets, the nearest museum directorate, or mukhtar in the villages, local authorities in other places should be informed. If these cultural assets are encountered within military posts and forbidden areas, major commands should be duly informed. Mukhtar should inform the nearest local authority within a day (24 hours), the local authority and other authorities should report the incident to the Ministry of Culture and Tourism and the related museum directorate via a formal letter.

***The Ministry of Culture and Tourism, General Directorate of Cultural Heritage and Museums*** and related ***Regional Board Directorate of Protection of Cultural Heritage*** are responsible for the registration of the cultural heritage.



### [Legal Necessities before the Impact Mitigation Measures \(Article 7 of the Law numbered 2863\)](#)

In Article 7, it is stated that the related **Regional Board Directorate of Protection of Cultural Heritage** is responsible for the registration of cultural and natural heritage. Therefore, for the registration of the immovable cultural assets, it is required to apply officially and directly to the related **Regional Board Directorate of Protection of Cultural Heritage**.

#### 3.1.4.2 Regulation on Determination and Registration of Immovable Cultural and Natural Heritage

*(Official Gazette dated on 10.12.1987 and numbered 19660)*

This regulation aims to introduce principles on permits about researches and excavations to be conducted under the law of protection of cultural and natural entities, the preservation necessities of the findings, studies on these findings, the assignments, duties and authorizations, rights, and expenses of the related persons.

#### 3.1.5 Community Health and Safety Management

All activities in the management and monitoring of community health and safety will comply with the following national requirements.

Relevant Turkish legislation and regulations are:

- Regulation on Principles of Communicable Disease Surveillance and Control promulgated in the Official Gazette No: 26537 and Dated 30.05.2007,
- Law No: 5188 on Private Security Services promulgated in the Official Gazette No: 25504 Dated 26.06.2004,
- Regulation regarding Implementation of the Law on Private Security Services promulgated in the Official Gazette No: 25606 Dated 07.10.2004
- Communiqué on Major Accident Prevention Policy Documents promulgated in the Official Gazette No: 29435 Dated 04.08.2015
- Regulation on Prevention and Effect Control of Major Industrial Accidents in the Official Gazette No: 28867 Dated 30.12.2013

National Requirements:

- Regulation for Manual Handling Operations in Workplaces,
- Regulation on Health and Safety Measures in Working with Chemicals,
- Regulation on Personal Protective Equipment,





- Health and Safety Regulation for Mining Works,
- Regulation on Health and Safety Signs,
- Regulation on Dust Control,
- Regulation on Occupational Health and Safety in Construction Works,
- Regulation on the Protection of Workers from Noise Related Risks,
- Regulation on Protection of Workers from the Risks of Explosive Atmospheres,
- Regulation on the Protection of Workers from Vibration Related Risks,
- Regulation on Plans and Principles of Occupational Health and Safety training of Workers,
- Regulation on Health and Safety Restrictions of Equipment Usage in Workplaces,
- Regulation on Duty, Authority and Responsibility and Training of Occupational Safety Specialists,
- Regulation on Emergency Situations in Workplaces,
- Regulation on Risk Assessment Regarding Occupational Health and Safety.

## 3.2 Turkish EIA Requirements

### *Environmental Law*

The main law of National Environmental Legislation is the Environmental Law numbered 2872 which was issued on 11.08.1983 with the official gazette number of 18132. In this law, the Turkish Regulation on *Environmental Impact Assessment (EIA)* (Official Gazette, 17 July 2008, no 26939) is defined which includes a limited public disclosure process. The Environmental Impact Assessment (EIA), which was presented to the Ministry of Environment and Urbanization on 11.11.2016 in line with the national EIA Regulation, was conducted. The “EIA Positive” Decision (No: 4423) was obtained on 13.12.2016.

## 3.3 Other Commitments and Requirements

There are no other applicable commitments and requirements of Turkish Government authorities related to this plan.

## 3.4 Applicable International Standards and Guidelines

The international standards and guidelines which the Project will follow are set by International Finance Corporation (IFC) and AIIB ESSs.

### 3.4.1 Air Quality Management

The Project will comply with the following international standards and guidelines:

- IFC General EHS Guidelines: Environmental Air Emissions and Ambient Air Quality (30.04.2007)
- AIIB ESS 1: Environmental and Social Assessment and Management
- Directive 2008/50/EC on Ambient Air Quality and Cleaner Air for Europe
- WHO Ambient Air Quality Guidelines (Global Update 2005).

The World Health Organization published a guideline for air quality with a global update for 2005. In this publication, there are interim targets for the certain pollutants such as particulate matter, ozone, nitrogen dioxide and sulphur dioxide. Moreover, IFC EHS Guideline for Air Emissions and Air Quality also refers to those limit values in its content. The recommended limit values are listed in Table 3-4.

Table 3-4. WHO Ambient Air Quality Guidelines

Parameter	Duration	Limit Value* ( $\mu\text{g}/\text{m}^3$ )
SO <sub>2</sub>	10-minute	500
	24-hour	20
NO <sub>2</sub>	Hourly	200
	Annual	40
PM <sub>10</sub> (Particulate Matter)	24-hour	50
	Annual	20
PM <sub>2.5</sub> (Particulate Matter)	24-hour	25
	Annual	10
O <sub>3</sub>	8-hour daily maximum	100

\* IFC, Environmental, Health and Safety Guidelines, General EHS Guidelines: Environmental, Air Emissions and Ambient Air Quality

### 3.4.2 Noise Management

IFC General Environmental, Health and Safety Guidelines sets limits for noise for two types of receptors and two time periods, as given in Table 3-5. The guideline requires that noise levels do not exceed the levels given in table or result in a maximum increase in background levels of 3 dB at the nearest receptor location off-site.

Table 3-5. IFC Noise Level Guidelines (One-hour Leq-dBA)

Receptor	Daytime (07:00 - 22:00)	Nighttime (22:00 - 07:00)
Residential areas	55	45
Commercial/industrial areas	70	70

### 3.4.3 Contractor Management

International standards and guidelines will adopt for good and safety practices of contractors and subcontractors. IFC Performance Standards on Social and Environmental Sustainability, IFC General Environmental, Health, and Safety (EHS) Guidelines, AIIB ESS 1 and European



Union requirements will be followed for minimizing and preventing any possible health and safety issues of workers and public.

### 3.4.4 Cultural Heritage Management

#### 3.4.4.1 European Convention on The Protection of the Archaeological Heritage

*(Revised) (Valetta, 16/01-1992)*

This convention is known as the Valetta Convention. It sets guidelines for the funding of excavation and research work and publication of research findings. It also deals with public access, in particular to archaeological sites, and educational actions to be undertaken to develop public awareness of the value of the archaeological heritage.

#### 3.4.4.2 Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972

Turkey is a signatory to The World Heritage Convention, which was approved by The General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO), (1972, Paris). The signatories to this Convention have agreed to ensure that effective and active measures are taken for the protection, conservation, and presentation of the cultural and natural heritage of their territories.

#### 3.4.4.3 Other International Standards and Requirements

According to IFC's PS 8, the Project will avoid significant adverse impacts on cultural heritage. HSE Manager of the Project will develop provisions for managing chance finds with the procedure to be applied when cultural heritage is subsequently discovered. Any chance find will not be disturbed until an assessment by competent professionals is made and actions consistent with the requirements of this Performance Standard are identified.

### 3.4.5 Community Health and Safety Management

The international standards which the Project will implement are those set by the International Finance Corporation (IFC). All activities in the management and monitoring of community health and safety will comply with the following international standards and requirements. Applicable IFC standards and guideline requirements for OHS management within the scope of the Project are provided in the following references:

- IFC Performance Standards on Social and Environmental Sustainability
- IFC General Environmental, Health, and Safety (EHS) Guidelines
- IFC EHS Guidelines: Community Health and Safety



- IFC EHS Guidelines: Construction and Decommissioning
- IFC Good Practice Handbook: Use of Security Forces: Assessing and Managing Risks and Impacts
- AIIB ESS 1

The above standards and guidelines form a framework for the adoption of the best guidance for community health and safety to minimize damages, traffic accidents and injuries to project personnel and the public.

### 3.5 Project Standards

The Project will adopt the most stringent standard of all the mentioned national and international standards.

## 4 MANAGEMENT CONTROLS AND MITIGATION MEASURES

### 4.1 Air Quality Management

The mitigation measures to be taken during the construction phase (and operation phase if necessary) are listed below:

- Air Quality Monitoring will be performed in accordance with the EIA requirements.
- Loading and unloading works will be performed without scattering.
- Excavated materials will be covered with plastic canvas during their transportation.
- Access road and internal roads will be sprayed with water with water trucks to suppress dust, if required.
- Stripped topsoil will be covered, and top layers will be kept moist.
- Construction materials will be shielded against the wind and dust suppression spray systems will be used.
- Speed limitations will be enforced for vehicles.
- Construction vehicles will not be permitted to keep engines running while waiting to enter to the site or waiting on-site.
- Construction vehicles leaving the site will be washed to prevent the transmission of dust and mud from the site to the public roads.
- Drop height of materials that have potential to generate dust will be kept as minimum as possible.
- Well and adequate maintained vehicles will be used, and regular maintenance of these vehicles will be ensured.
- National regulations related to air quality and air pollution control will be obeyed.



- Stakeholder Engagement Plan and Internal and External Grievance Mechanism Procedure will be implemented to collect complaints and suggestions of local people and workers through the Grievance Mechanism to be established during the lifetime of the Project.

## 4.2 Noise Management

Mitigation measures to be taken regarding noise management are set out separately for construction and operation phases.

### **Construction Phase**

- Construction activities at the work sites will be conducted only during daytime.
- Equipment with lower sound power levels will be selected and maintained regularly.
- Noise monitoring program will be conducted in case of any complaint received and related noise measurements will be undertaken and recorded to Noise Register (see *Appendix E*) to verify compliance with regulatory limits and Project standards.
- Stakeholder Engagement Plan and external Grievance Mechanism will be established and implemented.
- Grievance mechanism for the workers will be established in order them to express their complaints regarding the working conditions.
- Signboards and necessary warnings will be placed in the project area where construction activities are available.
- Warning signs will be placed in the work areas for the prevention of all kinds of work accidents and for providing the occupational health of the workers.
- Ear plugs will be provided to all employees and the usage of those equipment will be ensured.
- Necessary other measures will be taken by the contractor against the issues that will adversely affect the environmental and community health.

### **Operation Phase**

- Low-speed fans will be used in closed areas.
- Noise reducing insulation and special materials will be used for large components, where possible.
- The noise level can be reduced with the use of modern and advanced equipment, so it will be tried to use this equipment as much as it feasible.
- Equipment and units will be kept in good running order throughout the operational life of the Project through routine maintenance.



- Stakeholder Engagement Plan and Grievance Mechanism established will continue throughout the operational phase.
- Noise monitoring will be conducted in case of complaints for verification.

### 4.3 Contractor Management

The key steps of the contractor engagement and management process as implemented by the Project are as follows:

- Qualification and Sourcing,
- Planning and Preparation,
- Mobilization,
- Management of work,
- Reviewing, Updating and Close-out.

Subcontractors will be selected by a due diligence process. In this selection process, it is required to be filled “H&S Checklist” (see *Appendix F*) by the related department of the Project to let sub-contractors start their works at the site. After completion of this selection process, a kick-off meeting will be held with each of the selected contractors before they started to work.

Grievance Mechanism Procedure developed for the Project will be followed and implemented by contractors and subcontractors. The relevant suppliers that will provide goods/services continuously during the lifetime of the project will be informed of how the Grievance Mechanism works. It is required to ensure that this procedure is easily reachable by supply chain workers.

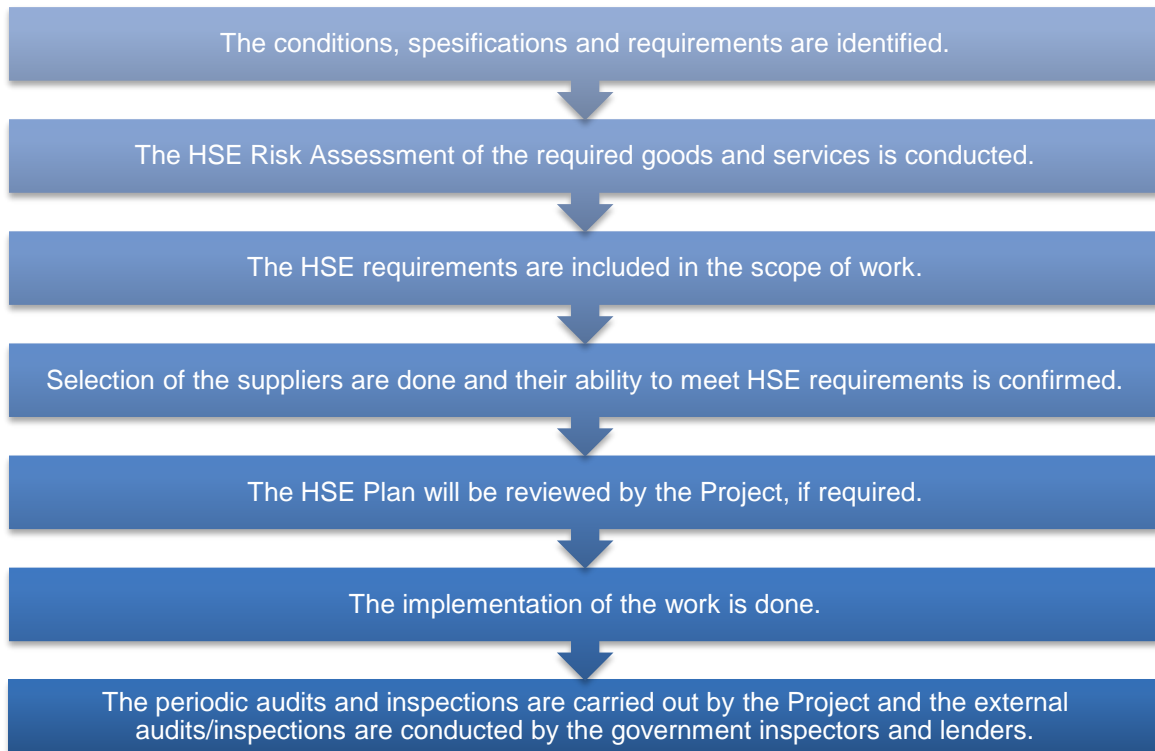


Figure 4-1. Process of Contractor Management

#### 4.3.1 Requirements of Contractor Management

All contractors and subcontractors will be responsible for compliance of the Project Standards. Existing labour practices and HSE systems of contractors are important criteria to evaluate contractor performance. New contractor selection and agreements should consider this evaluation. Identification of SoW and relation to Project Standards should be assessed. If there are any existing contractors, these contracts should be reviewed for consistency of implement of Environmental and Social requirements in all activities of the Project.

Below Table 4-1 summarizes the management control requirements. The Project will implement these requirements to manage the contractors and ensure alignment and compliance with the Project Standards and requirements.



Table 4-1. Contractor Management Requirements of the Project

Requirement	Implementation	Means of Verification
A process must identify and evaluate the risks associated with the planned procurement of materials, equipment, services, and labour, including an assessment of the risks of non-compliance or non-conformance with the Project Standards.	<ul style="list-style-type: none"> <li>• Development of scope of work using SoW checklist</li> <li>• Performing risk assessment, if required</li> </ul>	Scope of work and risk assessment (if required)
A process must be used for evaluation of a supplier's ability to provide materials, equipment and/or services that meet the defined specifications, design criteria and Project Standards. Evaluations and any related actions must be documented.	<ul style="list-style-type: none"> <li>• Evaluation of bids</li> <li>• Assessment against the Project Standards</li> </ul>	Evaluation of bids
The required specifications must be met by all materials, equipment, services, and labour procured or supplied for the control of HSE, community and compliance risks associated with their intended use or activity, as identified in the risk assessment process.	<ul style="list-style-type: none"> <li>• Evaluation of bids</li> <li>• Assessment against the Project Standards</li> <li>• Assessment against the risk assessment</li> </ul>	Verification of HSE hazard identification responses by bidders
A registration must be kept for hazardous materials (preferably with a link to an inventory system) that are approved for use onsite. This register must be available, referred to, and maintained to control the purchase and introduction of new materials. All hazardous materials introduced by the contractors or visitors must also be included on or evaluated against this register.	<ul style="list-style-type: none"> <li>• Provision of the MSDS to the HSE Manager for verification</li> </ul>	Register of hazardous materials
The properties of all materials (including their process intermediates, by-products, and wastes) must be adequately understood, documented and integrated into the operating procedures where exposure to their properties presents a significant risk to the HSE performance. Legally compliant Material Safety Data Sheets (MSDS) must be available before the delivery and use of such materials (including products).	<ul style="list-style-type: none"> <li>• Provision of the MSDS to the HSE Manager for verification</li> </ul>	MSDS





Requirement	Implementation	Means of Verification
<p>The management process of the contractors includes the following phases:</p> <ol style="list-style-type: none"> <li>1. Selection of contractors,</li> <li>2. Preparation of contractors,</li> <li>3. Orientation and training,</li> <li>4. Contractor management,</li> <li>5. Post-evaluation.</li> </ol> <p>Individuals engaged in a temporary or casual basis to work within existing businesses/managed sites are to be inducted and managed in the same way as employees.</p>	<ul style="list-style-type: none"> <li>• Contractor Management Process</li> </ul>	<p>Review of the records</p>
<p>For all contracted labour or service agreements, there must be an agreed scope of work, which will include an analysis of the risks associated with the activities to be performed by the Contractor, including an assessment of the risks of non-compliance or non-conformance with the Project Standards. The extent of the risk assessment required will be determined during the scope of the work development process but will include, as a minimum, a hazard identification of the EHS, community and compliance risks as set out in the SoW template.</p>	<ul style="list-style-type: none"> <li>• Development of scope of work using SoW template</li> <li>• Performing risk assessment, if required</li> </ul>	<p>SoW and Level 2 risk assessment (if required)</p>

#### 4.3.2 Key Procurement and Contractor Management Stages

A successful project should involve contractors which act similarly. The Environmental and Social performance of the Project depends on consistency of all activities. The first step of contractor procurement process is preparation of proposal in compliance with controls and commitments described in this plan. Evaluation of contractor's Environmental and Social Requirements and commitments are also involved in key procurement. By this plan, mitigation measures and performance improvement of Environmental and Social risks and impacts of the Project are aimed. In the light of this considerations, the actions to be taken for implementation of the management plan are described in this section.

Table 4-2, given below summarizes the key procurement at each stage. These are the actions undertaken by the Project to ensure that the activities are properly specified, resourced, managed and supervised to be following the Project requirements and Project Standard.



Table 4-2. Key Procurement Activities

	Qualification and Sourcing	Supplier Preparation	Mobilisation	Work Management	Review and Close Out
<b>Actions</b>	<ul style="list-style-type: none"> <li>• Sole Source</li> <li>• Purchase requisition</li> <li>• Purchase order</li> <li>• Competitive</li> <li>• Create SoW</li> <li>• Risk assessment and establishment of relevant the Project contractual requirements</li> <li>• Pre-qualification</li> <li>• SoW issued to bidders</li> <li>• Tender clarifications</li> <li>• Tender evaluation</li> <li>• Contracting</li> <li>• Purchase order</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare tender</li> <li>• On the award, prepare EHSS Management Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Send vehicles, tools, and equipment to the site for inspection</li> <li>• Workers to attend training</li> <li>• Provide details of supervisors and company emergency contacts</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor work permits</li> <li>• Supervise activities</li> <li>• Track time and exposure hours</li> <li>• Run pre-start meetings</li> <li>• Ensure work is carried out safely</li> <li>• Check and audit activities</li> <li>• Communicate regularly</li> </ul>	<ul style="list-style-type: none"> <li>• Provide feedback on performance</li> </ul>
<b>Process Tools</b>	<ul style="list-style-type: none"> <li>• Purchase requisition form</li> <li>• SoW template</li> <li>• EHS and social risk assessment</li> <li>• The Project EHS and Social Management Plans</li> </ul>	<ul style="list-style-type: none"> <li>• SoW</li> <li>• The Project Standard EHSS Requirements</li> <li>• Template for worker, equipment &amp; tools lists</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment and tools lists</li> <li>• Equipment and tools checklist</li> </ul>	<ul style="list-style-type: none"> <li>• Standard work Procedures</li> <li>• Job Hazard Assessment</li> <li>• Work permits system</li> <li>• Regular inspection checklist</li> </ul>	<ul style="list-style-type: none"> <li>• Demobilization checklist after operation phase (for long-term contractors and suppliers)</li> </ul>



#### 4.4 Cultural Heritage Management

The basic definitions regarding the management of cultural heritage are given as follows:

- Ministry of Culture and Tourism is the responsible authority.
- Museum Directorate is responsible to provide experts for the sites within 24 hours after being informed and to officially define the Chance Find. Museum directorate is responsible from the excavation of chance find areas. Museum Directorate will follow the directions and decisions from Regional Board Directorate of Protection of Cultural Heritage.
- Regional Board Directorate of Protection of Cultural Heritage is the only decision maker on any intervention, which would be made on the site after the chance find.
- Toros Energy is responsible for the management of Archaeological issues during the progress of construction of the Project site area and implementation of related management plan and chance find procedure.
- If necessary, Toros Energy will employ archaeologists at the Project site responsible for the monitoring of ground disturbance activities. Also, In the case of an archaeological excavation to be conducted by Konya Museum Directorate, an archaeologist will be employed. They are also responsible with the monitoring of the implementation of the Cultural Heritage Management and Chance Finds Procedure.
- Toros Energy will ensure that Chance Finds Procedure is adequately enforced during ground disturbance activities. During the implementation of the Chance Finds Procedure on site, Toros Energy will directly report the issue to Museum archaeologist and relevant Regional Preservation Board.
- Toros Energy is also responsible for giving necessary trainings to the field staff about the implementation of the chance find procedure.
- Toros Energy will record all chance finds on the Chance Finds Report Form (*see Appendix J*) and in the Chance Finds Register (*see Appendix K*) as per the Chance Find Procedure given in Appendix I.

The Project will be responsible for the management of the plan and procedure about archaeological issues of Project site. The HSE Manager of the Project will train the employees about cultural heritage and Chance Finds Procedure and monitor the construction works.

The HSE Manager will work with the equipment operators and have the authority to stop work. Operators will stop work or redirect stripping activities in case of a chance finds and submit special reports of chance finds to HSE Manager. In addition to the Chance Find Procedure



(see *Appendix I*), the Konya Regional Board Directorates will decide for the requirement of a salvage excavation. The contact information of this board directorate is given in Appendix L. The negotiations and meetings with the related Regional Board Directorate of Protection of Cultural Heritage on technical topics during and after the salvage excavation will be held by HSE Manager or a Consultant archaeologist (is necessary).

The Project will liaise with local authorities to identify if project activities can interfere with traditional celebrations or festivities; alternative solutions will be agreed with local authorities. Furthermore, the Project will liaise with local authorities to identify if project activities restrict access to elements of traditional culture, then alternative solutions will be agreed with local authorities.

#### **4.5 Community Health and Safety Management**

All the Project employees, local communities and suppliers will be informed on the main security arrangements implemented and on security rules during periodical stakeholder engagement activities. Additionally, security cameras will be placed in the Project Office (if possible) and around the access roads (if required). Security cameras will be followed simultaneously, and records will be available for 1 month in case of needs.

If security personnel are planned to be armed, then all necessary permits and trainings will be taken by Toros Energy before employment of the security personnel in accordance with national legislation. According to IFC's Good Practice regarding to use of armed private security personnel:

- Roles and responsibilities will be defined,
- Weapons will be used appropriate to the level of risk,
- Requisite training on use of firearms will be given to each security personnel,
- Clear rules will be defined on the use of force and firearms,
- Nonlethal methods of protection will be prioritized before resorting use of lethal force.

Private security personnel are authorized for routine controls and their responsibility is to report the non-compliances to HSE Manager and Local Authorities.

The table below presents the key management controls that will be implemented.

Table 4-3. Key Management Controls on Community Health and Safety

Topic	Project Phase Applicability	Control Description	Responsible Parties	Means of Verification
Change in traffic density impacting other road users	<ul style="list-style-type: none"> <li>• Construction</li> <li>• Operation</li> <li>• Closure</li> </ul>	<ul style="list-style-type: none"> <li>▪ Identify and install all necessary traffic warning signage within the access roads.</li> <li>▪ Prepare and provide driver safety training for drivers and operators.</li> <li>▪ Develop and implement a Road Safety Awareness Programme for local communities.</li> <li>▪ Maintain vehicles in periodic verification inspections will be undertaken.</li> <li>▪ Set zero limit for alcoholic beverages and illegal drugs.</li> </ul>	<ul style="list-style-type: none"> <li>• HSE Manager</li> <li>• Social Responsibility Staff (SRS)</li> <li>• Administrative Affairs Chef</li> </ul>	<ul style="list-style-type: none"> <li>• H&amp;S Records</li> <li>• Training Records</li> </ul>
Community Engagement	<ul style="list-style-type: none"> <li>• Construction</li> <li>• Operation</li> <li>• Closure</li> </ul>	<ul style="list-style-type: none"> <li>▪ Local communities, workers and suppliers will be informed on the main security arrangements implemented and on security rules</li> </ul>	<ul style="list-style-type: none"> <li>• Social Responsibility Staff</li> <li>• HSE Manager</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation minutes with stakeholders</li> </ul>
Public Access to Project Area	<ul style="list-style-type: none"> <li>• Construction</li> <li>• Operation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Continue to implement measures to discourage unauthorized entry onto the Project Site,</li> <li>▪ Hiring security presence and security personnel,</li> <li>▪ Provide security cameras if required,</li> <li>▪ Ensure that those providing security services are adequately trained in the use of force and appropriate conduct toward workers and Affected Communities.</li> <li>▪ Prioritization of nonlethal methods of defence/protection over use of firearms</li> <li>▪ Visitor admission is required sign-in at the security gate</li> <li>▪ Recording the license plates of the visitors' vehicles</li> <li>▪ All personnel entering the Office/Construction Site will have an identification badge.</li> </ul>	<ul style="list-style-type: none"> <li>• Operational Manager</li> <li>• HSE Manager</li> <li>• Social Responsibility Staff</li> </ul>	<ul style="list-style-type: none"> <li>• Grievance records</li> <li>• Security records</li> </ul>

Topic	Project Phase Applicability	Control Description	Responsible Parties	Means of Verification
Community Health, Safety and Security	<ul style="list-style-type: none"> <li>• Construction</li> <li>• Operation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Any person under the influence of alcohol or illegal drugs will not be permitted to enter the Construction/Office Site</li> <li>▪ Gambling, firearms, alcoholic beverages, illegal drugs, and explosives will not be permitted at the office/construction site</li> </ul>	<ul style="list-style-type: none"> <li>• Private Security Personnel</li> <li>• Administrative Affairs Chief</li> </ul>	<ul style="list-style-type: none"> <li>• Security Records</li> <li>• Routine Inspections</li> </ul>
	<ul style="list-style-type: none"> <li>• Closure</li> </ul>	<ul style="list-style-type: none"> <li>▪ Insufficient security measures: physical hazards, should be effectively and permanently blocked from all access to the public until such time that the site can be converted into a new beneficial land use.</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>
Life and Fire safety	<ul style="list-style-type: none"> <li>• Construction</li> <li>• Operation</li> </ul>	<ul style="list-style-type: none"> <li>▪ In case of off-site emergency, or an off-site accidents (emergency case relevant to life and fire safety), which may affect the local settlements communication with local authorities given in the Emergency and Preparedness Management Plan will be conducted by Social Responsibility Staff under the supervision of the HSE Manager.</li> </ul>	<ul style="list-style-type: none"> <li>• HSE Manager</li> <li>• Social Responsibility Staff</li> </ul>	<ul style="list-style-type: none"> <li>• Incident Reports</li> </ul>

## 5 IMPLEMENTATION SCHEDULE

### 5.1 Review and Revision of the Plan

This Environmental and Social Management and Monitoring Plan will be reviewed on a three-monthly basis at a minimum during the construction and annually during the operation phases. During the steady state operations, this Plan will be reviewed on an annual basis and any necessary revisions will be made in the Plan to reflect the changing circumstances or operational needs of the Project. The revision of this Monitoring Plan will be the responsibility of the Project HSE Manager, who is the executor of this Plan.

Any revisions to this Monitoring Plan will be uploaded to the Project DCC to ensure that all the Project staff has access to the latest version of this Monitoring Plan.



## 6 MONITORING

### 6.1 Overview of Monitoring Requirements

The monitoring measures that are to be implemented during the construction and operation phases to assess compliance of the Project with the relevant Project Standards are described in this section.

If any non-conformances with the Project Standards are identified, these will be investigated, and appropriate corrective actions will be put forward.

### 6.2 Key Performance Indicators (KPIs)

Key Performance Indicators (KPIs) for each topic of this Plan is given in Table 6-1.

Table 6-1. Key Performance Indicators

Topic	KPI	Target
Air Quality Management	% of test results compliant with legal standards related to air quality	Minimise air pollution and achieve continuous improvement in air quality
	Number of complaints (for the Project and contractors) received related to dust, and/or odour	Minimise air pollution and achieve continuous improvement in air quality
	% of non-compliances related to dust, and/or odour which are closed within agreed timeframe	Minimise air pollution and achieve continuous improvement in air quality
Noise Management	% of test results compliant with legal standards	Minimise noise during construction and operation and minimise nuisance in local communities
	Number of tests carried out near sensitive receptors	Minimise noise during construction and operation and minimise nuisance in local communities
	Number of complaints related to noise	Minimise noise during construction and operation and minimise nuisance in local communities
Contractor Management	Number of the reported HSE incidents of the contractors	To reduce and accomplish continuous improvement in the number of the reported HSE incidents of the contractors
	Number of the recorded community grievances related to the contractors	To reduce and accomplish continuous improvement in the number of the recorded community grievances related to the contractors
	Number of the kick-off meetings held versus the number of the contractors selected	Number of the kick-off meetings held versus the number of the contractors selected will be at least the same
	Number of complaints received by supply chain workers	To reduce the number of complaints
	Number of complaints gathered from contractors' workers	To reduce the number of complaints
	Number of contractors' site audits and document control audits performed in a month	To perform at least one contractors' site and document control audits monthly
	Number of non-compliances determined during the site and document audits of the contractors	To reduce the number of non-compliances

Topic	KPI	Target
Cultural Heritage	The number of the reported non-compliances including contractors against the management controls defined in this Plan per year.	To minimise the number of non-compliance reports with this Plan and zero non-compliance target per year.
	The number of complaints related to cultural heritage raised by local communities per year including contractors' activities.	<ul style="list-style-type: none"> <li>To investigate every complaint raised about cultural heritage (desecration, disturbance, removal, trafficking) and take appropriate action.</li> <li>To provide rapid response and investigation of any complaints or concerns from local communities and act within the specified timeframe in the Project Grievance Mechanism Procedure.</li> </ul>
Community Health and Safety Management	Total number of non-compliances with community health safety & security measures identified in "Key Management Controls" of this Plan.	Minimise and target zero per annum
	Number of community health safety & security complaints (related to air, noise, dust, traffic etc.) from local communities (external) as recorded in the grievance management system	Minimise and continued improvement in number of community health safety and security related complaints
	Number of solved community health safety and security complaints (related to air, noise, dust, traffic etc.) from local communities (external) as recorded in the grievance management system	Continued improvement in number of solved external grievances within the established timeframe and with the satisfaction of the complaint
	Number of reported community health & safety incidents	Minimise and target zero per annum
	Number of reported traffic incidents involving community members	Minimise and target zero per annum
	Number of reported noise and vibration incidents	Minimise and continued improvement in number of reported noise and vibration related incidents.
	Number of reported dust incidents	Minimise and continued improvement in number of reported dust related incidents.
	Number of non-compliant measurements (water quality, air quality and noise measurements)	Minimise and continued improvement in number of non-complaint measurements results with the project standards
	Number of communicable and non-communicable diseases and injuries	No significant increase in communicable and non-communicable disease and injury rates.
	Number of reported water resources management incidents	<ul style="list-style-type: none"> <li>Target zero non-compliances</li> <li>Minimise and continued improvement in number of reported non-compliances relevant to water resources</li> </ul>



Topic	KPI	Target
	Number of complaints related to water resources	<ul style="list-style-type: none"> <li>Target: zero complaints</li> <li>Minimise and continued improvement in number of complaints received with respect of water resources.</li> </ul>
	% of community received community safety training	80 %
	% of visitors received Visitor Training	100 %
	Number of drivers and community members involved in road safety training sessions	Continued improvement in the number of drivers and community members involved in road safety training sessions
	% of certification of the drivers / operations	%100

### 6.3 Key Monitoring Activities

The monitoring measures to be implemented during construction and operational phases to ensure compliance with the legal and other requirements and Project Standards are described below.

Table 6-2. Key Monitoring Activities

Activity	Monitoring Indicator	Monitoring Method	Responsible Staff	Monitoring Period	Monitoring Location
Dust and exhaust emissions control	% of test results compliant with legal standards	<ul style="list-style-type: none"> <li>Exhaust emission certificates will be checked annually.</li> <li>Test results will be checked with the Project standards for dust emissions.</li> </ul>	HSE Manager	Annual	All project vehicles Near sensitive receptors
Dust and exhaust emissions control	Observation of dust	Visual observation of significant dust	HSE Manager Contractors / Sub-contractors	Routine site audits (daily)	Project area
Construction noise of machinery and equipment	% of test results compliant with legal standards	Noise measurements at sensitive receptors	HSE Manager	In case of any complaint	Sensitive receptors
Transportation noise	% of test results compliant with legal standards	Noise measurements at sensitive receptors	HSE Manager	In case of any complaint	Sensitive receptors
Operational noise	% of test results compliant with legal standards	Noise measurements at sensitive receptors	HSE Manager	In case of any complaint	Sensitive receptors



Activity	Monitoring Indicator	Monitoring Method	Responsible Staff	Monitoring Period	Monitoring Location
Compliance of EHSS Management Plans of Contractors	% compliances	<ul style="list-style-type: none"> <li>Preparation of Scorecard/Report</li> <li>Audit records</li> <li>Grievance records</li> <li>Minutes of kick-off meetings</li> <li>Medical examinations</li> </ul>	HSE Manager	During construction and operational phases	Project Site
Cultural Heritage Training	The number of Project personnel and contractor workers trained	Chance Find Procedure trainings	HSE Manager	Three-monthly during the construction phase, annually during the operational phase	Project Site
Cultural Heritage Incidents	The number of incidents reported	Cultural Heritage register	HSE Manager	Three-monthly during the construction phase, annually during the operational phase	Project Site
Community Safety	Number of recorded security incidents involving the Project workers and members of the local population	<ul style="list-style-type: none"> <li>Security Record</li> <li>Grievance Records</li> </ul>	HSE Manager SRS Administrative Affairs Chief	Monthly during construction Annually during operation	Project affected villages
Traffic and transport	Number of community members involved in road safety training sessions	Training Records	HSE Manager	Monthly during construction Annually during operation	Project affected villages
Community Security	Monitor the performance of security personnel using a range of indicators.	<ul style="list-style-type: none"> <li>Grievances mechanism,</li> <li>Grievance Records related to security personnel</li> </ul>	HSE Manager SRS Administrative Affairs Chief	Monthly	Project site
Community health changes	District key health statistical analysis.	<ul style="list-style-type: none"> <li>Baseline info from local authorities</li> <li>HSE Records</li> </ul>	HSE Manager SRS	Annual	Project affected villages



## 7 TRAINING

All necessary training will be provided as induction training to provide general awareness for the environment and social issues, waste management. Job-specific training will be provided as necessary. All employees of the Project and subcontractors will take the following training courses, as well as “Induction Training” and “Job Specific Training” before starting their works, depending on their jobs:

- Legal H&S Training,
- Vocational Legal Training,
- First Aid Training,
- Emergency Response Team members training,
- Worker’s Representative training,
- H&S technical training (confined space, working at height, etc.),
- Visitor Training,
- Worker’s Representatives training,
- Driving related pieces of training such as Defensive driving training, Off-road training, etc.
- Other training such as;
  - ✓ Additional training for the workers who had occupational accidents or diseases to inform them about the reasons for the accident or disease, ways to protect themselves and safe working methods,
  - ✓ Refresher training before returning to work for the workers who are away from work for any reason for more than six months.

### 7.1 Induction Training

The induction training will provide information about general and site-specific induction to the environment, health, safety and social issues. All employees of the Project and contractors are required to join in this training. Both management and workers will be involved this training to increase the awareness of their safety responsibilities, their role and impacts on overall E&S management, environmental concerns, and importance of respect to others and local people.

### 7.2 Job Specific and Other Training

All employees of the Project and the contractors working at the Project site are expected to attend routine safety briefings. The procurement staff will be provided contract management training and other job-specific training that may be required.



The worker qualifications and training records will be collected from the contractors to verify competency and manage staff competency as part of the contractor engagement processes. When it is appropriate, competencies in emergency response scenarios will be mandated for the contractors.

## **8 AUDIT AND REPORTING**

### **8.1 External Auditing**

In order to assess the conformance with this Management Plan, it will be subject to periodic assessment as part of the Project audit program and separately by the Project Lenders. It will increase the efficiency of this management plan and performance of the project will be effectively boosted.

### **8.2 Record Keeping and Reporting**

The records of the audits, inspections, complaints, and incidents will be reported, kept and managed according to the Project procedures. Reporting activities for this management plan is mainly involved incidents and received grievances related to the contractor and subcontractor and their health and safety issues with investigation processes.

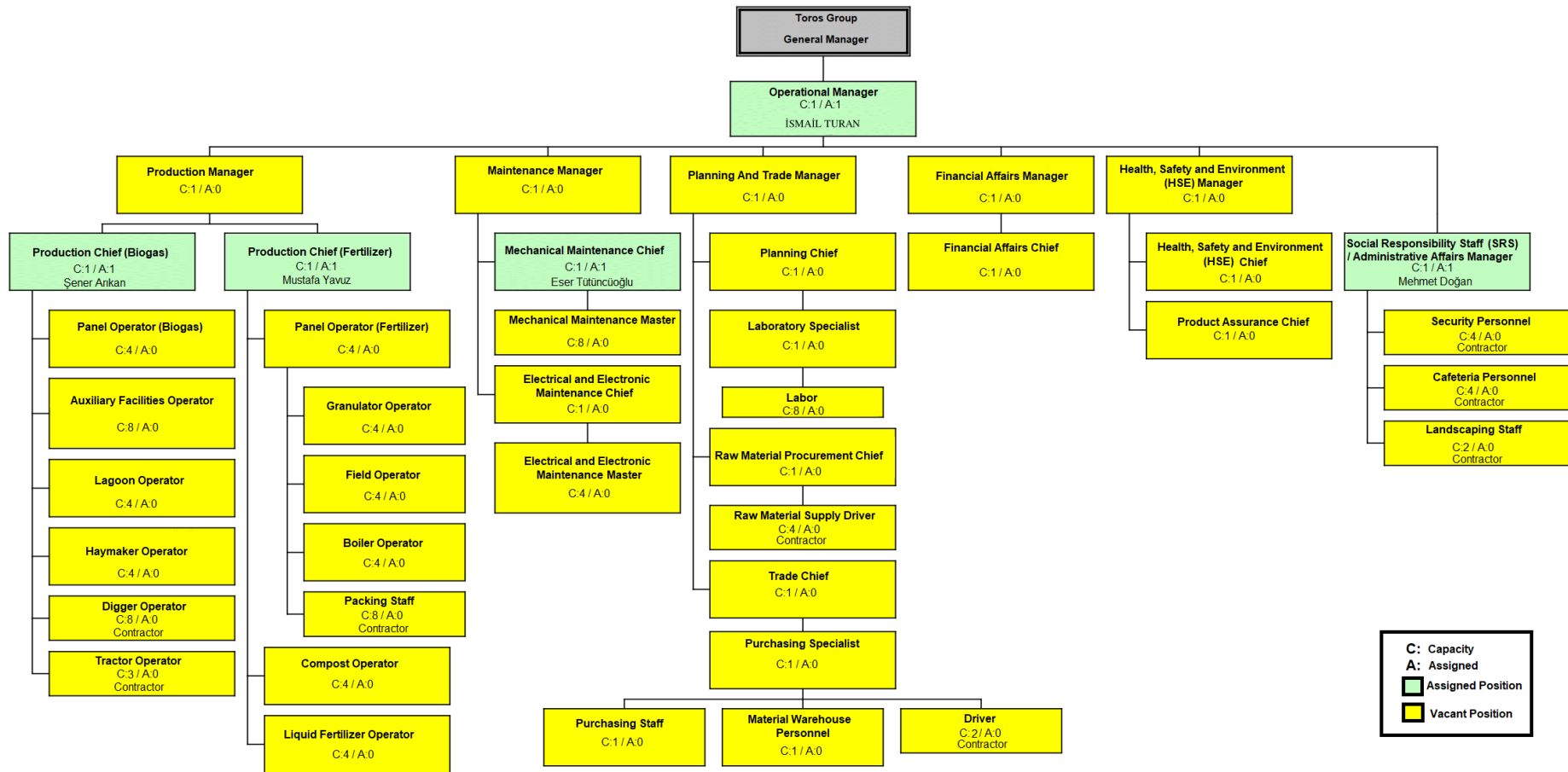


# APPENDICES



### Appendix A: Organizational Chart of the Project

Meram Biogas Power and Organomineral Fertilizer Production Plant  
Organizational Chart





### Appendix B: Aspects and Impacts Register

<b>ASPECTS and IMPACTS REGISTER</b>				
<b>Reporting Period:</b>				
<b>Activity</b>	<b>Aspect</b>	<b>Impact</b>	<b>Mitigation</b>	<b>Related Documentation</b>



**Appendix C: Incident Register**

<b>INCIDENT REGISTER</b>
<b>Reporting Period</b>

<b>Total of incidents</b>	
<b>To date</b>	<b>This Reporting Period</b>

<b>Total of incidents to date</b>	
<b>Open</b>	<b>Closed</b>

Date Raised	Contractor Registration Number	Location	Incident Summary	Actions		Close Out		Comments
				Corrective Actions	Auctioneer	To Close By	Actual Close out Date	





Appendix D: Air Quality Register

AIR QUALITY REGISTER												
Location	Date Sample Taken	Sample No	Sampled by	Parameters								
				Dust (visual assessment)	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>2</sub> / NOx	CO	O <sub>3</sub>	Lead	Benzene
				Limits								
					20 µg/m <sup>3</sup> (year)	10 µg/m <sup>3</sup> (year)	20 µg/m <sup>3</sup> (year)	30 µg/m <sup>3</sup> (year)	10 mg/m <sup>3</sup> (daily 8 hr average)	100 µg/m <sup>3</sup> (daily)	0.5 µg/m <sup>3</sup> (yearly)(LTH)	5 µg/m <sup>3</sup> (yearly)



Appendix E: Noise Register

<b>NOISE REGISTER</b>
<b>Reporting Time:</b>

Location	Date Sample Taken	Sampled by	Parameters								
			Meteorological Conditions				RAMEN parameters			IFC Parameters	
							LAeq (dBA)			LAeq (dBA)	
							Limits			Limits	
			Wind direction	Wind speed	Temperature	Humidity	Day Time (07:00 – 19:00)	Evening Time: (19:00 – 23:00)	Night Time (23:00 – 7:00)	Day Time (07:00- 22:00)	Night Time (22:00- 7:00)
						70	65	60	55	45	



## Appendix F: H&amp;S Checklist

	<b>İŞ GÜVENLİĞİ KONTROL LİSTESİ (HS CHECK LIST)</b>			<b>Type of Document</b>	
				Check List	
				<b>Form ID</b>	
				<b>Date</b>	
				<b>Reference Document</b>	
				(Name of the previous file goes here)	
				<b>Version</b>	01
<b>Edition</b>	01				
	<b>Yüklenici/Contractor</b>	<b>Tarih/Date</b>	<b>Yapılacak iş /Work detail</b>	<b>Çalışma Alanı / Work Field</b>	
<b>No</b>	<b>Konu/Subject</b>	<b>Var(Y)</b>	<b>Yok(N)</b>	<b>Açıklama/Description</b>	
1	Çalışanların nüfus kağıtları fotokopileri var mı? / Are there copies of the employee ID card?				
2	Çalışanların görev kağıtları var mı? / Do the employees have duty papers?				
3	Çalışanların mesleki yeterlilik belgeleri var mı? / Do employees have professional qualification documents?				
4	Çalışanların işyeri hekim tarafından verilmiş periyodik muayene raporu var mı? / Do employees have a periodic inspection report issued by the workplace doctor?				
5	Çalışanların temel İSG eğitim sertifikaları var mı? / Do employees have basic OHS training certificates?				
6	Çalışılacak bölgeye ait riskler ekip ile paylaşıldı mı? Kayıt edildi mi? / Were the risks of the region to be studied shared with the team? Is it registered?				
7	Ekip İSG sorumlusu personelin adı? / Name of the staff responsible for the team OHS?				
8	Çalışma izni formu doldurulmuş mu? / Is the work permit form filled?				
9	Çalışılacak bölgede gerilim var mı? Var ise özel önlemler alındı mı? / Is there any conflict in the area to be worked? If yes, what were the special measures taken?				
10	Toolbox yapıldı mı? / Is toolbox done?				
14	Gözlemci olarak tayin edilen personelin Adı-Soyadı-Görevi? / Name-Surname-Position of the personnel appointed as Observers?				
İşletme Sorumlusu	Kontrol Eden Ekip Şefi/Şantiye Şefi	Ekip Çalışanı		İşletme Sorumlusu	
(Adı ve Soyadı)	(Adı-Soyadı-Görevi-İmza) / (Adı-Soyadı-Görevi-İmza)	(Adı-Soyadı-Görevi-İmza)		(Adı ve Soyadı)	

**Appendix G: Minimum Document List to be Submitted by Contractors**

<b>LIST OF DOCUMENTS TO BE SUBMITTED BY THE CONTRACTORS</b>	
<b>DOCUMENT</b>	<b>STATUS</b>
Social Security Records	
Risk Assessment	
Emergency Response Plan (ERP),	
Medical Records	
Training Certificates of The Workers	
Equipment Database and Related Documents	



## Appendix H: Incident Form

The purpose of this form is to define the reason for investigating an incident or near misses.

INCIDENT FORM		
Details of the incident/near miss:	Date of incident:	Time of incident:
Short description of the incident / near miss:		
<i>Please describe in detail the causes of the incident to identify any risks and hazards.</i>		
Area where incident / near miss occurred:		

Details of the incident/near miss investigation:	
Name of injured person (if relevant):	Injury sustained (if relevant):
Name of the person who reported the incident:	Date of report:
Name of person completing this form:	
Telephone number:	Date report completed:

Witness details:	
Name's/Job title (if relevant):	Contact number:
Name of person/s conducting the investigation Job title (if relevant):	Contact number:

Immediate causes / Contributing Causes that may have been a factor to the accident/incident	
What preventative action could have been taken? Why was this action not taken?	
How much experience did the employee have in the task/s that was being performed when the accident/incident occurred? What training has been provided?	
<b>What is the chance of the accident/incident occurring again?</b>	

**Full description of events.****Who was involved: Worker/Student/ Visitor/ Contractor?**

*Briefly describe what happened including the sequence of events, investigate the scene of the incident or near miss; conditions present at the time of incident; what was involved, what activity (if any) was taking place prior and at time of the incident. What hazards was the worker exposed to? What hazards may have contributed to the incident occurring? (Attach photos if available)*

--

**INVESTIGATION RECOMMENDATIONS**

Outline recommended corrective action/s (i.e. solution/s) to prevent the recurrence of the incident **eg. new equipment, re-engineer, re-design work area, re-design work practices, review training standards, etc**

Investigators Recommendation	Person to Action	Completion date

**IMPLEMENTATION DETAILS**

Date implemented	Action taken	Responsible person	Review Date

**Investigators Name:****Date:****Attachments: e.g. photos, instructions, etc.**



## Appendix I: Chance Finds Procedure

### 1. PURPOSE

The Archaeological Chance Find Procedure is prepared to provide guidance to all parties and employees regarding the actions to be taken in case of the discovery of an archaeological asset.

### 2. SCOPE

It is likely to encounter archaeological findings during the construction activities of the project. Any type of activity requiring excavation or any type of intervention on the landscape through earthworks has the potential to lead to the discovery or destroying of archaeological entities.

### 3. PROCEDURE

Any physical remains of past human activity, including artifacts, plant, and animal remains, structural remains, and soil features are defined as archaeological entities. All actions to be carried out in case of discovery of an archaeological entity should comply with the Law on Cultural and Natural Assets Conservation Law Numbered 2863 (Law Number: 2863, Date of Approval: 21.7.1983, Publication in the Official Gazette: Date: 23/7/1983 No: 18113).

In the event of the discovery of an archaeological entity, the following procedure shall be implemented:

- All construction and other relevant activities in the vicinity of the chance find will be ceased by the HSE Manager or Consultant Archaeologist (if required) of the Project or anyone, who encounters a chance find.
- The Project HSE Manager will contact the Project Manager as soon as a chance find is encountered.
- The Project HSE Manager contacts museum directorate archaeologist immediately.
- HSE Manager of the Project will properly secure chance find the site via flagging, no-entry signs, etc. and prevent/limit the vehicle traffic within the immediate vicinity of chance find and also protect the site by not moving, removing or further disturbing the chance find.
- Boundaries of discovered archaeological site coordinates will be recorded and the photograph of the location and the finding shall be taken, and video record should be made.



- The site and its vicinity will be secured against damage or loss until a final decision is made about this site by Board.
- HSE Manager of the Project will fill out Part A of Chance Find Form and send a copy to Museum archaeologist within 24 hours keeping a hard copy for the Project as a record and registering a copy to Document Control Centre (DCC),
- If any human remains such as a contemporary grave or graveyard are noticed, security forces will be informed. Unless the remains are determined to be recent, the local administration (village head: mukhtar, or district governor) has the full authority.
- Further steps to be followed and proper procedures to be implemented for the management of the finding(s) (changes in the layout, conservation, preservation, restoration, or salvage) will be decided and reported in writing by the Museum Directorate.
- In case the site is considered to be of no significance by the Museum Directorate, the Project HSE Manager will inform the Construction Manager and they will inform their managers. Subsequent of filling out Part B of Chance Find Form by HSE Manager of the Project within 24 hours while retaining a copy of the Chance Find form as a record, the construction works will proceed since no further actions are required.

In case the site is considered as significant by the Museum Directorate, the Project HSE Manager will be informed by the Museum Directorate about the decision on further actions. The Project HSE Manager will inform the construction manager and their managers. Subsequent of filling out Part B of Chance Find Form by HSE Manager of the Project within 24 hours while retaining a copy of the Chance Find form as a record, the instructions of the Museum Directorate will be followed. After some field investigation, Museum Directorate will declare their decision on the significance of the site, and the actions to be followed as per their decision are summarized in the following table.





Site to be of No Significance	Site to be of Minor Significance	Site to be of Major Significance
<ul style="list-style-type: none"> <li>• The Project HSE Manager will inform their managers,</li> <li>• HSE Manager of the Project will record the decision in Part C of Chance Find Form within 24 hours,</li> <li>• HSE Manager of the Project will retain a copy of Chance Find form as a record,</li> <li>• No further actions will be required,</li> <li>• This step closes out the chance find procedure,</li> <li>• <u>Construction activities may resume.</u></li> </ul>	<ul style="list-style-type: none"> <li>• A salvage excavation is to be completed</li> <li>• Museum Directorate will provide instructions, and/or supervision for salvage archaeological excavation the Project HSE Manager,</li> <li>• The Project HSE Manager will inform their managers,</li> <li>• Under the guidance of Museum archaeologist (following instructions from other authorities, Konya Regional Board, etc.), the Project will provide a team of qualified archaeologists to conduct the salvage excavation,</li> <li>• Once the excavation is completed, HSE Manager of the Project will provide a report to Project Manager,</li> <li>• The Project HSE Manager will provide a report to the Museum Directorate,</li> <li>• Regional Board Directorate of Protection of Cultural Heritage will officially confirm the completion of recovery and inform the Project HSE Manager,</li> <li>• The Project HSE Manager will inform the operational manager that no further actions are required,</li> <li>• The Project HSE Manager will inform other managers,</li> <li>• HSE Manager of the Project will record the decision in Part C of Chance Find Form within 24 hours,</li> <li>• HSE Manager of the Project will retain a copy of Chance Find form as a record,</li> <li>• No further actions will be required,</li> <li>• This step closes out the chance find procedure</li> <li>• <u>Construction activities may resume.</u></li> </ul>	<ul style="list-style-type: none"> <li>• Excavation is to be completed,</li> <li>• The site will be treated according to “Law on the Conservation of Cultural and Natural Property (2863)”,</li> <li>• Museum Directorate will provide instructions, and/or supervision for salvage archaeological excavation to the Project HSE Manager,</li> <li>• the Project’s HSE Manager will inform the Project Manager,</li> <li>• Once the excavation is completed, HSE Manager of the Project will provide a report to Project Manager,</li> <li>• the Project HSE Manager will provide a report to the Museum Directorate,</li> <li>• Regional Board Directorate of Protection of Cultural Heritage will officially confirm the completion of recovery and inform the Project HSE Manager,</li> <li>• Site will be officially recorded and protected according to Turkish regulations,</li> <li>• The Project HSE Manager will inform the Project Manager that no further actions are required, or that a relocation is required,</li> <li>• HSE Manager of the Project will record the decision in Part C of Chance Find Form within 24 hrs,</li> <li>• HSE Manager of the Project will retain a copy of Chance Find form as a record,</li> <li>• No further actions will be required,</li> <li>• This step closes out the chance find procedure,</li> <li>• <u>Construction activities may resume, or relocation is implemented.</u></li> </ul>



## Appendix J: Chance Finds Report Form

To be filled out in English (İngilizce doldurunuz.)

<b>PART A BÖLÜM A</b>		
Location: <i>Mevkii</i>	Date: <i>Tarih</i>	ID:
Name of person reporting chance find: <i>Rastlantısal buluntuyu rapor eden kişinin ismi</i>		
Name of contractor employee contacted: <i>İletişime geçilen yüklenici çalışanı ismi</i>		
Was work stopped in the immediate vicinity of chance find? <i>Rastlantısal buluntunun tam çevresinde iş durduruldu mu?</i>	<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>
Was a buffer zone created to protect chance find? <i>Rastlantısal buluntuyu korumak için tampon bölge oluşturuldu mu?</i>	<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>
<b>NOTIFICATION (BİLDİRİM)</b>		
Contractor construction manager contacted <i>Yüklenici inşaat müdürü ile irtibata geçildi</i>	<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>
The Project HSE Manager contacted <i>Projenin İş Sağlığı, Güvenliği ve Çevre müdürü ile iletimize geçildi</i>	<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>
<b>CHANCE FIND DETAILS (RASLANTISAL BULUNTU AYRINTILARI)</b>		
GPS coordinates <i>GPS koordinatları</i>	Photo record <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(HD quality – no cell phone photos) Fotoğraf kaydı <i>Evet</i> <i>Hayır</i> (HD kalitesinde – cep telefonu fotoğrafı değil)</i>	
	If not, explain why: <i>Yok ise nedenini açıklayınız</i>	
	Other records <input type="checkbox"/> Yes <input type="checkbox"/> No <i>No Specify (drawings, HD quality videos, etc.): Diğer kayıtlar <i>Evet</i> <i>Hayır Belirtin</i> (çizimler, HD kalite videolar, vb.)</i>	
Description of chance find: <i>Rastlantısal buluntunun tanımı</i>		
Description of site and vegetation: (e.g. surface sediment type, ground surface visibility, distance to closest watercourse, etc.) <i>Sahanın ve bitki örtüsünün tanımı: (örn. Yüzey sediman türü, yüzey zemin görünürlüğü, en yakın su yoluna olan mesafe, vb.)</i>		



<b>PART B BÖLÜM B</b>	
<b>NOTIFICATION OF _____ MUSEUM DIRECTORATE ARCHAEOLOGIST ( _____ MÜZE MÜDÜRLÜĞÜ ARKEOLOĞUNA BİLDİRİ)</b>	
<p>The Project HSE Manager contacted museum directorate archaeologist <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>Projenin İş Sağlığı, Güvenliği ve Çevre Müdürü müze müdürlüğü arkeoloğu ile irtibata geçti.</i></p> <p><input type="checkbox"/> Evet <input type="checkbox"/> Hayır</p> <p>Date of notification: <i>Bildirim tarihi</i></p> <p>Name of museum directorate archaeologist : <i>Müze müdürlüğü arkeoloğunun ismi</i></p> <p>Contact number of museum directorate archaeologist: <i>Müze müdürlüğü arkeoloğunun iletişim numarası</i></p>	
<b>DECISION OF _____ MUSEUM DIRECTORATE ARCHAEOLOGIST ( _____ MÜZE MÜDÜRLÜĞÜ ARKEOLOĞUNUN KARARI)</b>	
Date of initial investigation: <i>İlk araştırma tarihi</i>	
<input type="checkbox"/> Site of no significance - Construction to proceed with no further investigation – End of chance find procedure <i>Önemsiz saha – İnşaat daha fazla araştırma yapılmadan devam edilebilir – rastlantısal buluntu prosedürün sonu.</i>  Date of notice to resume work : <i>İşe başlama tarihi bildirisi</i>	<input type="checkbox"/> Site of significance - Further investigation required <i>Önemli saha – Ek araştırma gerekmektedir</i>  Fill out Part C <i>Bölüm C'yi doldurun.</i>
<p>Name of museum directorate archaeologist: <i>Müze müdürlüğü arkeoloğunun ismi</i></p> <p>Contact information: <i>İletişim numarası</i></p>	
<p>The Project HSE manager contacted <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Projenin İş Sağlığı, Güvenliği ve Çevre Müdürü ile irtibata geçildi</i> <i>Evet Hayır</i></p>	

<b>PART C BÖLÜM C</b>		
<b>FURTHER FIELD INVESTIGATION (EK SAHA ARAŞTIRMASI)</b>		
<input type="checkbox"/> Site of no significance <i>Önemsiz saha</i>	<input type="checkbox"/> Site of minor significance <i>Az önemli saha</i>	<input type="checkbox"/> Site of major significance <i>Çok önemli saha</i>
Describe additional work to be conducted: <i>Yapılması gereken ek işlerin tanımlayın</i>		
Date started: <i>Başlangıç tarihi</i>	Date completed: <i>Bitiriş tarihi</i>	
Date of notice to resume work : <i>İşe başlama tarihi bildirisi</i>		
Name of museum directorate archaeologist: <i>Müze müdürlüğü arkeoloğunun ismi:</i>		
Contact information: <i>İletişim numarası</i>		
Operational manager contacted <i>İşletme müdürü ile irtibata geçildi</i>	<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>
The Project HSE Manager contacted <i>Projenin İş Sağlığı, Güvenliği ve Çevre Müdürü ile irtibata geçildi</i>	<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>



**Appendix K: Chance Find Register**

<b>CHANCE FIND REGISTER</b>
<b>Reporting Period:</b>

<b>Total of chance find</b>	
<b>To date:</b>	<b>This reporting Period:</b>

ID (*)	DATE OF CHANCE FIND	LOCATION	CHANCE FIND SUMMARY	NAME OF AUTHORITY NOTIFIED	DATE PART A COMPLETED	DATE PART B COMPLETED	DATE PART C COMPLETED	ACTION TAKEN	STATUS OPEN OR CLOSED	REMARKS
MERAM 1										
MERAM 2										
MERAM 3										
MERAM 4										

(\*) Keep same ID format



## Appendix L: Contact Information of Related Museum Directorates and Regional Board Directorates

### Museum Contact Information

Name:	Phone:	Address:
<b>Konya Museum Directorate</b>	<b>(0332) 351 89 58</b>	Bedir, Sahibi Ata Cad., 42100 Meram/KONYA

### Contact Information of Regional Board Directorates

Name:	Phone:	Address:
<b>Directorate of Board of Cultural and Natural Heritage Conservation</b>	<b>(0332) 350 93 19</b>	Aziziye, Vali İzzet Bey Cad. No:1, 42030 Karatay/Konya