



# **TURCAS BM KUYUCAK JEOTERMAL ELEKTRİK ÜRETİM A. Ş.**

## **KUYUCAK GEOTHERMAL POWER PLANT**

### **ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN**



#### **MGS PROJE MÜŞAVİRLİK MÜHENDİSLİK TİCARET LTD. ŞTİ.**

Şehit Cevdet Özdemir Mah. Öveçler 4. Cad. 1351. Sk. No: 1/7 06460 Çankaya/ANKARA

Tel: +90 312 479 84 00 (pbx) Faks : +90 312 479 84 99

Web: [www.mgsmuhendislik.com](http://www.mgsmuhendislik.com)

E-posta: [mgs@mgsmuhendislik.com](mailto:mgs@mgsmuhendislik.com)

2016

## **ABBREVIATIONS**

<b>ESIA</b>	Environmental Social Impact Assessment
<b>ESMMP</b>	Environmental and Social Management and Monitoring Plan
<b>EBRD</b>	European Bank for Reconstruction and Development
<b>EHS</b>	Environment, Health and Safety
<b>IFC</b>	International Finance Corporation
<b>OSH</b>	Occupational Safety and Health

## **ENVIRONMENTAL AND SOCIAL MONITORING AND MANAGEMENT PLAN**

The Environmental and Social Management and Monitoring Plan (ESMMP) presented in this document has been prepared in accordance with EBRD Performance Requirements and IFC Performance Standards to document the key management and monitoring actions to be implemented during design (project preparation), construction and operation periods of the Project. The plan was developed based on the mitigation measures provided in the ESIA Report in order to minimize and/or remove possible adverse environmental and social effects of the project.

The management and monitoring plan will provide the following information:

- Environmental and Social Impact/Parameter
- Legislative Framework,
- Project Phase,
- Details of Mitigation Measures,
- Parties responsible for implementations,
- Monitoring methodology including frequency,
- Target and evaluation criteria.

IMPACT/ PARAMETER	LEGISLATIVE FRAMEWORK	PROJECT PHASE	MITIGATION MEASURES	RESPONSIBILITY	MONITORING METHODOLOGY	TARGET/ EVALUATION CRITERIA
<b>GENERAL</b>						
Environmental and Social Management	Environmental Law (No.2872)  Labour Law (No.4857)  Occupational Health and Safety Law (No.6331)  IFC PS1  Equator Principles  EBRD PR1	All Phases	The Project will be designed, built and operated in accordance with the more stringent obligations of the applicable Turkish Regulations and the international standards and guidelines of the lending institutions: ➤ Turkish Legislation ➤ EBRD Performance Requirements ➤ IFC Performance Standards and EHS Guidelines Including the following documents, project-specific management plans and procedures will be prepared and implemented; Construction Phase: ➤ Waste management plan (including all solid, medical and dangerous wastes) ➤ Emergency management plan ➤ Traffic management plan ➤ Noise management plan ➤ Air quality management plan ➤ Safety management plan ➤ Hazardous substance management plan ➤ OSH plan ➤ Contractor / Subcontractor Occupational Health and Safety Specification ➤ Regulations and procedures that will be prepared according to TURCAS Corporate Human Resources Regulations and Procedures. ➤ Archaeological random findings procedure ➤ Community health and safety management plan Operation Phase: ➤ Waste management plan ➤ Emergency preparedness and response management plan ➤ Traffic management plan ➤ Air quality control and management plan ➤ Safety plan ➤ Hazardous materials management plan ➤ Occupational health and safety plan ➤ Human Resources Regulations and Procedures ➤ Community health and safety management plan ➤ Erosion, reinstatement and landscape restoration plan ➤ OHSAS 18001 Occupational Health and Safety Management System and ➤ ISO 14001 Environmental Management System will be developed.	TURCAS BM  Subcontractors	Design controls  Site inspections  Monitoring records	Completion of the Project in compliance with relevant legislative framework
		Design	➤ Environmental, occupational health and safety measures shall be implemented in accordance with the legal framework ➤ Taking the necessary precautions for the heat insulation of the powerhouse ➤ The use of design in accordance with national and international standards relating to fire and life safety ➤ Design of appropriate temporary storage of the best techniques for all kinds of waste that will occur at construction and operation phases. ➤ The necessary design for disposal of the wastewater that occurs at the construction and operation phases in accordance with national and international legal framework.	TURCAS BM	Design controls  Site inspections  Monitoring records	

AIR QUALITY						
Dust Emissions	Regulation on Control of Industrial Air Pollution  Regulation on Assessment and Management of Air Quality  EBRD PR1 & PR3  Equator Principles  IFC PS3	Construction	<ul style="list-style-type: none"> <li>➤ Construction site and roads that will be used shall be watered by sprinklers periodically.</li> <li>➤ During the transportation of excavated material soil drift will be blocked by covering the trucks.</li> <li>➤ There will be speed limit for vehicles operating in the area.</li> <li>➤ Without washing the truck tires and without being covered with a tarpaulin the trucks will not be allowed to leave the construction site.</li> <li>➤ Loading and unloading will be provided that there will be no tossing.</li> <li>➤ Construction machinery speeds will be complied with the regulations specified in the Construction and Traffic Management Plan.</li> <li>➤ Dust emissions will be controlled by monitoring studies, in case of any complaint comprehensive measures will be wider by increasing the frequency of monitoring.</li> </ul>	TURCAS BM  Subcontractors	Site observation  Site inspections  PM <sub>10</sub> measurements on 4 locations for 1 year period  Check grievance mechanism records about dust emissions	Compliance with the limit values  No grievance mechanism record/complaints for dust
Exhaust Emission	Regulation on Control of Industrial Air Pollution  Regulation on Assessment and Management of Air Quality  Regulation on Control of Exhaust Emissions	Construction	<ul style="list-style-type: none"> <li>➤ In order to control exhaust emissions during the construction phase, new vehicles and / or recently maintained vehicles will be used.</li> <li>➤ All vehicles will take exhaust emissions stamp.</li> <li>➤ Work machines will not be left in working condition at park places except for maintenance or repair operations.</li> </ul>	TURCAS BM  Subcontractors	Site observation  Site inspections  Check vehicle maintenance reports	Exhaust emission certificates
Odor Emission	Regulation on Control of Industrial Air Pollution  Regulation on Assessment and Management of Air Quality  Regulation on The Control of Odor Creator Emissions	All phases	<ul style="list-style-type: none"> <li>➤ During the activity period; "Regulation on Control of Emission Odor Creator" provisions will be strictly complied.</li> <li>➤ If Necessary and / or desired measurements will be made.</li> <li>➤ By regulating the pressure in the transmission line, the H<sub>2</sub>S output will be prevented.</li> </ul>	TURCAS BM  Subcontractors	Site observation  Site inspections	No grievance about odor
Greenhouse Gas Emissions	Regulation on Control of Exhaust Emissions  Regulation on Monitoring of Greenhouse Gas Emission  EBRD PR1 & PR3  Equator Principles  IFC PS3	Operation	<ul style="list-style-type: none"> <li>➤ Studies performed for the reduction of heating fuel; <ul style="list-style-type: none"> <li>❖ Taking the necessary measures for building insulation</li> <li>❖ Outside the entrance of the building, a revolving door, double doors or air curtains will be used.</li> <li>❖ The maintenance heating system</li> <li>❖ To inform the relevant employees about this matter.</li> </ul> </li> <li>➤ Studies aimed at reducing the fuel used in vehicles: <ul style="list-style-type: none"> <li>❖ Performing periodic exhaust emissions measurement of the means used.</li> <li>❖ The preference of low fuel consuming vehicles.</li> <li>❖ Prevention of unnecessary vehicle use.</li> <li>❖ Complete and regular vehicle maintenance.</li> </ul> </li> <li>➤ Studies aimed at reducing the fuel used in generators: <ul style="list-style-type: none"> <li>❖ Timely maintenance of generators</li> </ul> </li> <li>➤ The studies related to air conditioning gases: <ul style="list-style-type: none"> <li>❖ To prefer A Class ventilation system.</li> <li>❖ The use of automatic air-conditioning system.</li> </ul> </li> <li>➤ The studies related to electricity consumption: <ul style="list-style-type: none"> <li>❖ The use of high efficiency fixtures and lamps, electronic ballasts, lighting control systems and the use of as much benefit as possible from the day light at lightning.</li> <li>❖ The use of motion, temperature and light-sensitive sensor control system.</li> <li>❖ The reduction of lighting during daylight hours.</li> </ul> </li> </ul>	TURCAS BM	Check monitoring & maintenance records	Emission records

NOISE						
Noise	Regulation on Assessment and Management of Environmental Noise  EBRD PR1 & PR3  Equator Principles  IFC PS3	Construction	<ul style="list-style-type: none"> <li>➤ All work machinery and equipment shall not be operated simultaneously.</li> <li>➤ Periodic maintenance of all work machinery and equipment will be done on time.</li> <li>➤ Advanced technology equipment with noise levels as low as possible will be used.</li> <li>➤ Construction machinery will be closed except for use.</li> <li>➤ Construction activities will be conducted during daylight hours as possible.</li> <li>➤ To make sure that onto comply the noise standards, noise monitoring study will be conducted.</li> <li>➤ Excavation handling will be carried out during normal working hours via shipping routes. In case of the transport operations at night required permits will be taken.</li> <li>➤ Working on reducing the impact of the noise level staff will be made aware.</li> <li>➤ Local residents will be informed about the progress of activities will consist of noise. Complaints on noise will be evaluated in the context "Grievance Mechanism".</li> <li>➤ Opening hours will be set by the provisions of the relevant legislation.</li> </ul>	TURCAS BM Subcontractors	Site observation  Site inspections  Noise measurement at 4 locations for 24 hours in a year  Check grievance mechanism records about noise	Compliance with the limit values  No grievance mechanism record/complaints for noise
		Operation	<ul style="list-style-type: none"> <li>➤ To use equipment with advanced technology and the maintenance of this equipment will be made periodically.</li> <li>➤ If deemed necessary, pitch, barriers and natural barriers will be established.</li> <li>➤ Noise sources are to be taken indoors.</li> </ul>	TURCAS BM	Check grievance mechanism records about noise	No grievane about noise
TRAFFIC						
Traffic Management	Regulation on Highway Traffic  Regulation on Highway Transportation  EBRD PR4  Equator Principles  IFC PS4	All phases	<ul style="list-style-type: none"> <li>➤ Construction and Operation Traffic Management Plan will be prepared by the Investor in order to prevent negative effects on traffic in and around the project area and this plan will cover the construction and operation period.</li> <li>➤ As possible roads to be used will be provided such that they will not pass through sensitive receptors such as settlements and schools.</li> <li>➤ Security and traffic warning signs will be placed at the Project site and surrounding.</li> <li>➤ Speed limit rules will be ensured.</li> <li>➤ The staff who will use the vehicles and work machines during the construction phase shall be informed about safe drive.</li> <li>➤ Information to the relevant authorities will be given during the transportation of special cargo.</li> <li>➤ The safe use training shall be given about Safe loading / unloading, on issues such as load limits to the operators that will use the special tools such as forklifts and license will be taken.</li> <li>➤ During reverse moving of the equipment with limited rear visibility there shall be a sound alarm.</li> <li>➤ Right of way, site speed limits, vehicle inspection requirements, operating rules and procedures for determining compliance will be ensured.</li> <li>➤ During transport activities, existing roads will not be damaged; the formation of any conditions that will endanger the traffic such as dust, smoke and unburned gas shall be prevented, vehicles shall not be loaded more than allowed, bridges, warning marks, grilles, asphalt and gravel covering roads will not be damaged. In case of any damage to these structures, damage costs will be borne by the contractor</li> </ul>	TURCAS BM Subcontractors	Control of the site and traffic routes  Control of vehicle maintenance records  Checking compliance with the Traffic Management Plan  Control of Complaints mechanism record about traffic-related complaints	Compliance with the Traffic Management Plan  No traffic accidents  No complaints about the traffic  No damage to roads used

ECOLOGY						
Flora Fauna Management	The Central Hunting Commissions Decisions  Bern Convention  CITES Convention	Construction	<ul style="list-style-type: none"> <li>➤ There are no endemic species in the project area, so moving plants, seed collection and so on. operations will not be performed</li> <li>➤ To minimize the dust transport roads and construction sites shall be watered at regular intervals.</li> <li>➤ Illegal hunting activities in the field will be blocked and employees will be awared.</li> <li>➤ During the Construction period in order to prevent relocation and other negative behavior of the macro-organisms due to the inconvenience factor care to be taken about working hours of the work machines.</li> <li>➤ During the Construction period filling process with the material resulting from excavation will be minimized in order not to disrupt the stability of fauna in the vicinity.</li> <li>➤ The area around the construction phase of the plant will be isolated; the animal species encountered in the field at this stage (small mammals, amphibians and reptiles etc.) at the plant site will be redirected to suitable habitats outside the borders. During the construction phasebecause of the noise that may occur as a result of human activities, especially the large mammals will stay away from activities.</li> <li>➤ The fauna species to survive in the project area will not be disturbed and every precaution to protect habitats will be taken.</li> <li>➤ The wild fauna species in all the studies of the project will never be harmed deliberately, and national and international, legislation and contract terms will be certainly complied.</li> <li>➤ Under the project, measures will be taken for the protection of flora and fauna and during all activities national and international, legislation and contract terms will be certainly complied.</li> </ul>	TURCAS BM Subcontractors	Site observations	To ensure the compliance with measurements

SOIL AND GROUNDWATER QUALITY						
Soil and Groundwater Quality	<p>Regulation on Control of Soil Pollution and Contaminated Sites by Point Sources</p> <p>Regulation on Monitoring of Surface Water and Groundwater</p> <p>Regulation on Protection of Groundwater Against Contamination</p> <p>EBRD PR1 &amp; PR3</p> <p>Equator Principles</p> <p>IFC PS3</p>	All Phases	<ul style="list-style-type: none"> <li>➤ Works staff will be given training on the issues that could lead to soil contamination by investors.</li> <li>➤ Soil that will be released during the excavation work to be carried out at the construction phase will be stored so as to be protected from rain and wind erosion.</li> <li>➤ During the transportation of excavated material, trucks shall be covered and soil drift will be blocked.</li> <li>➤ It is important not to lose the quality of the soil for re-use of fertile soil that will be released during the stripping of topsoil. Therefore if there is a need to store the fertile soil it will be kept in a separate place and moistened.</li> <li>➤ If the excavated soil is suitable it will be used in the backfill. The waste material that will not be used in the backfill will be sent to the area in which the municipality shows.</li> <li>➤ Waste Management Plan and Hazardous Materials Management Plan will be prepared.</li> <li>➤ Transportation and disposal of excavation waste and hazardous wastes will be carried out in accordance with national legislation.</li> <li>➤ Under the soil pollution prevention and control the mixing of hazardous materials, hazardous waste or waste oil to the environment shall be prevented.</li> <li>➤ Waste oil and hazardous waste will be collected in watertight tanks and the tanks will be stored in a barrier coated concrete area against leakages. The storage area will not be linked to the rain water drainage channels.</li> <li>➤ Maintenance and repair operations of construction equipment and machinery will be carried out at a concrete covered and tightness against leakage area.</li> <li>➤ Drainage channels of the rain water and surface water in the project area will be constructed in accordance with the topography of the area. Drainage channels will be checked periodically in the operation phase.</li> <li>➤ Domestic waste water arising out of the use of water on the construction site during the construction phase of the Project shall be collected and disposed at package sewage treatment plant or septic tank depending on the number of personnel in accordance with regulations. Water collected in impermeable septic tanks will be drawn by sewage trucks and will be given to the wastewater infrastructure of Aydin Metropolitan Municipality.</li> </ul>	TURCAS BM Subcontractors	<p>Site observations</p> <p>Soil quality measurements at 2 locations in 1 year period</p> <p>Groundwater measurements and analyses at 2 locations in 1 year period</p>	<p>Compliance with the limit values</p> <p>No soil and/or groundwater contamination</p>
HAZARDOUS MATERIAL MANAGEMENT						
Hazardous Material Management	<p>Regulation on Health and Safety Precautions in Working with Chemical Substance</p> <p>EBRD PR3</p> <p>Equator Principles</p> <p>IFC PS3</p>	All Phases	<ul style="list-style-type: none"> <li>➤ For the fuels and chemical-containing materials that will be used in the construction and operation phases of the project Hazardous Materials Management Plan under the convenient transport and storage with international standards and national regulations will be prepared and it will be developed, including safety measures.</li> <li>➤ Refueling operations shall be performed on the concrete floor in sealed impermeable area. The storage of hazardous substances such as needed oil, gas etc. will be done on impermeable tank at a proper size.</li> <li>➤ Storage of fuels and chemicals will be held in an area that is on the concrete floor, protected against the weather and floods.</li> <li>➤ In case of spills and leaks immediate intervention will be provided and in order to collect the spilled waste absorbent materials and sawdust will be kept in place.</li> <li>➤ Transportation, storage and disposal of hazardous materials will be managed in accordance with the manufacturer's instructions.</li> </ul>	TURCAS BM Subcontractors	<p>Site observations</p> <p>Check compliance with Hazardous Material Management Plan</p> <p>Visual inspections to ensure the proper storage and handling</p>	<p>Compliance with Hazardous Material Management Plan</p> <p>No work accident due to chemical substances</p> <p>No environmental accident due to chemical substances</p>



WASTE MANAGEMENT						
Excavation Waste	Regulation on Control of Excavated Soil, Construction and Demolition Wastes EBRD PR3 Equator Principles IFC PS3	Construction	<ul style="list-style-type: none"> <li>➤ Stripped top soil will be stored in uncovered storage areas to be reused for landscaping.</li> <li>➤ Excavated soil will be used to fill back as possible.</li> <li>➤ The excavated soil will not be used in the backfill will be taken by the Kuyucak Municipality.</li> <li>➤ Recyclable waste will be collected separately and sent to a licensed recycling facility.</li> </ul>	TURCAS BM Subcontractors	Site observations Check compliance with Waste Management Plan Check records for waste disposal/transport	Compliance with Waste Management Plan and relevant legislation
Domestic Solid Waste and Packing Waste	Waste Management Regulation Packing Waste Control Regulation EBRD PR3 Equator Principles IFC PS3	All Phases	<ul style="list-style-type: none"> <li>➤ Domestic solid waste shall be collected in sealed containers or in watertight containers and will be taken by the Kuyucak municipality.</li> <li>➤ Recyclable waste (paper, plastic, bottles, scrap iron, etc.) will be separately collected and sent to a licensed recycling facility.</li> <li>➤ Non-recyclable waste will be sent to areas nominated by the municipality.</li> </ul>	TURCAS BM Subcontractors	Site observations Check compliance with Waste Management Plan Check records for waste disposal/transport	Compliance with Waste Management Plan and relevant legislation
Drilling Mud	Waste Management Regulation EBRD PR3 Equator Principles IFC PS3	Construction	<ul style="list-style-type: none"> <li>➤ Muds that will be used in drilling Works shall be collected at sealing and impermeability provided pools.</li> <li>➤ Eluate analysis of the sludge will be constructed.</li> <li>➤ In case of any chemicals used in drilling mud in order not to mix surface waters into the mud pool set of sandbags will be done around the mud pools.</li> <li>➤ When the drilling work is completed mud in the pool will be dried, and the pool's roof will be covered with topsoil from the excavation and earthwork. If membrane is laid membrane shall be taken out and sent to the manufacturers to be disposed and pool's roof will be covered with topsoil.</li> <li>➤ Mud shall be sent to Aydin Metropolitan Municipality II. Class of Landfill and it will be disposed there.</li> </ul>	TURCAS BM Subcontractors	Site observations Check compliance with Waste Management Plan Check records for waste disposal/transport	Compliance with Waste Management Plan and relevant legislation
Waste Oil	Waste Oil Control Regulation EBRD PR3 Equator Principles IFC PS3	All Phases	<ul style="list-style-type: none"> <li>➤ Waste oil sourced from machinery and equipment will be prevented to mix the soil and they will be stored in sealed containers.</li> <li>➤ They will be collected in separate sealed tanks after the analysis according to the given parameters pursuant to the relevant regulations. Waste oil storage tanks will be colored red and "waste oil" mark will be found on them.</li> </ul>	TURCAS BM Subcontractors	Site observations Check compliance with Waste Management Plan Check records for waste disposal/transport	Compliance with Waste Management Plan and relevant legislation
Vegetable Waste Oil	Waste Management Regulation EBRD PR3 Equator Principles IFC PS3	All Phases	<ul style="list-style-type: none"> <li>➤ Waste Vegetable Oil will be stored separately from other waste in sealed and inside and outside of corrosion-resistant barrels.</li> <li>➤ Waste oils will be sent to a licensed waste vegetable oil recycling plant for recycling.</li> </ul>	TURCAS BM Subcontractors	Site observations Check compliance with Waste Management Plan Check records for waste disposal/transport	Compliance with Waste Management Plan and relevant legislation
Hazardous Waste	Waste Management Regulation Hazardous Waste Control Regulation EBRD PR3 Equator Principles IFC PS3	All Phases	<ul style="list-style-type: none"> <li>➤ It will be collected in the area reserved for temporary storage of hazardous waste.</li> <li>➤ Transported by the licenced carrier by private vehicles on the from the facility will be given to an environment licensed disposal facility.</li> <li>➤ National Waste Transportation Form to be used during the transportation of hazardous waste (it together) will be stored.</li> </ul>	TURCAS BM Subcontractors	Site observations Check compliance with Waste Management Plan Check records for waste disposal/transport	Compliance with Waste Management Plan and relevant legislation

Waste Batteries Waste Accumulators	Waste Management Regulation Regulation on Control of Waste Batteries and Accumulators EBRD PR3 Equator Principles IFC PS3	All Phases	<ul style="list-style-type: none"> <li>➤ They will be collected in special containers with the characteristics determined by the relevant regulatory provisions at the temporary waste storage site for waste batteries and accumulators.</li> <li>➤ Waste batteries from the battery exchange process shall be given to the battery authorized firms to be replaced by full.</li> <li>➤ Waste batteries shall be collected at the waste battery box placed in the appropriate fields and periodically will be sent to waste battery recycling plant that has an environmental license.</li> </ul>	TURCAS BM Subcontractors	Site observations Check compliance with Waste Management Plan Check records for waste disposal/transport	Compliance with Waste Management Plan and relevant legislation
End-of-life Tires	Waste Management Regulation Regulation on Control of End-of-life Tires EBRD PR3 Equator Principles IFC PS3	All Phases	<ul style="list-style-type: none"> <li>➤ It will be collected separately from the other waste.</li> <li>➤ They will be sent to recycling facilities that has environmental permits and license via transport licensed vehicles.</li> </ul>	TURCAS BM Subcontractors	Site observations Check compliance with Waste Management Plan Check records for waste disposal/transport	Compliance with Waste Management Plan and relevant legislation
Medical Wastes	Waste Management Regulation Medical Waste Control Regulation EBRD PR3 Equator Principles IFC PS3	All Phases	<ul style="list-style-type: none"> <li>➤ It will collected separately from the other waste at the special leak-proof medical waste bags</li> <li>➤ They will be given to licensed medical waste disposal facilities.</li> </ul>	TURCAS BM Subcontractors	Site observations Check compliance with Waste Management Plan Check records for waste disposal/transport	Compliance with Waste Management Plan and relevant legislation

WATER QUALITY AND WASTEWATER MANAGEMENT						
Water Quality and Wastewater Management	<p>Water Pollution Control Regulation</p> <p>Surface Water Quality Management Regulation</p> <p>Regulation on Monitoring of Surface Water and Groundwater</p> <p>Regulation on Protection of Groundwater Against Contamination and Deterioration</p> <p>Aydın Metropolitan Municipality Regulation on Discharge of Wastewater to Sewage System</p> <p>EBRD PR3</p> <p>Equator Principles</p> <p>IFC PS3</p>	All Phases	<ul style="list-style-type: none"> <li>➤ Drainage system in the central area will be designed in appropriate size.</li> <li>➤ Piping for rainwater drainage will be created.</li> <li>➤ For the prevention of water pollution during construction, in order to avoid possible spills and leakage regularly storage and disposal of waste I will be provided. In addition, employees will be trained during the transportation of excavated material.</li> <li>➤ Oil change, fuel makeup, etc. needs of construction machinery will not be performed in the area being excavated. Specified needs will be done on the impermeability ground system that has impermeability.</li> <li>➤ Any spills or other such case shall be reported, the necessary measures shall be taken and shall be disposed of properly.</li> <li>➤ Geothermal fluid will be discharged to the receiving environment in any way, will be pressed back into the reservoir through reinjection pipes.</li> <li>➤ Drilling muds shall be stored in the sealed pool the water inside of the mud will be evaporated. The remaining sludge will be disposed of after eluate analysis performed in accordance with applicable regulations.</li> <li>➤ The domestic waste water that will occur during the construction phase of the project, depending on the number of staff will be collected at the package treatment plant or septic tank impermeable depending on the number of staff. Water collected in the septic tank shall be drawn by sewage trucks and shall be given to the treatment of the wastewater system Aydın Metropolitan Municipality.</li> <li>➤ Domestic wastewater that will occur in the operational phase will be collected in impermeable septic tank. Water collected in the septic tank shall be drawn by sewage trucks and shall be given to the treatment of the wastewater system Aydın Metropolitan Municipality.</li> </ul>	TURCAS BM Subcontractors	<p>Site observations</p> <p>Surfacewater measurements and analyses at 2 locations in 1 year period</p>	Quality control records
CULTURAL HERITAGE						
Archeological Chance Find	Law of Protection of Cultural and Natural Properties	Construction	<ul style="list-style-type: none"> <li>➤ In case of archaeological find during construction works, all the construction activities in the area will be stopped.</li> <li>➤ Responsible engineer will be alerted and the engineer will notify the nearest museum directorship, village headman or the local administrators within at the latest three days.</li> <li>➤ The village headman, the local administrator receiving such notification or the relevant authorities that are directly notified of such property shall take the necessary measures to protect and secure such property. The village headman shall notify the nearest local administrator as of the situation and the measures taken on the same day. The local administrator and other authorities shall notify in writing the Ministry of Culture and Tourism and the nearest museum directorship within ten days.</li> <li>➤ Upon receiving this notification, the Ministry and Museum Director shall instigate due proceedings as soon as possible in line with the provisions of this law.</li> <li>➤ In this process, immovable cultural and natural property to be protected and conservation sites shall not be interfered with physically or by any way of construction.</li> <li>➤ Construction will continue when allowed by the responsible authority.</li> </ul>	TURCAS BM Subcontractors	Site observations	Compliance with Archeological Chance Find Prosedure
VISUALOTY AND LANDSCAPE						
Visuality and Landscape	<p>European Landscape Convention</p> <p>EBRD PR1-PR6</p> <p>Equator Principles</p> <p>IFC PS1-PS6</p>	All Phases	<ul style="list-style-type: none"> <li>➤ Topsoil will be stored separately and then to be used in landscaping work</li> <li>➤ After construction activities in the areas identified will be used for planting work</li> </ul>	TURCAS BM Subcontractors	Site observations	Confirmitiy with landscape and visuality

POWER TRANSMISSION						
Power Transmission Line	Health and Safety Law Expropriation Law Regulations on Electrical Power Plants Environmental Law EBRD PR 2 & PR4 & PR5	Construction	<ul style="list-style-type: none"> <li>➤ Nationalization plan will be prepared and implemented according to the expropriation regulations.</li> <li>➤ Waste generation will be minimized.</li> <li>➤ Necessary measures shall be taken to prevent and minimize environmental pollution.</li> <li>➤ Hazardous wastes such as wires etc. shall be disposed by licensed companies.</li> <li>➤ Occupational health and safety regulations will be complied with.</li> <li>➤ Protective equipment will be provided to workers.</li> <li>➤ Electrical maintenance and repair work will be performed only by qualified electricians.</li> <li>➤ Work will start after making sure all the necessary OSH measures taken.</li> </ul>	TEAİŞ Subconstructors Operation and Maintenance Company	During the construction period	Compliance with the legislation and Guidelines
		Operation	<ul style="list-style-type: none"> <li>➤ After provisional acceptance and final acceptance of the power transmission line "Death Danger Sign" and standard sign plates will be placed in writing for all kinds of security measures to the transmission towers.</li> <li>➤ It shall be stay below the limit values specified in the "People-Low Frequency Exposure to Electromagnetic Fields (0 Hz to 10 Hz)" standard of The Turkish Standards Institute.</li> <li>➤ Pruning work shall be carried for the plants near to the wires.</li> <li>➤ The line will be established according to the principles specified in the fire safety of the Electrical Power Plants Regulation and it shall be regularly to controlled and the necessary maintenance, repair and renovation work will be done.</li> </ul>		During the operation period	
SOCIAL IMPACTS						
Employment and Labor Conditions	Labour Law (No.4857) Occupational Health and Safety Law (No.6331) Equator Principles IFC PS2 Employee Accommodation: Processes and Standards IFC ve EBRD	Construction	<ul style="list-style-type: none"> <li>➤ A construction camp site will be built within project site for the employee during construction activities.</li> <li>➤ Living conditions of employee will be in national and international standards, hygienic environment will be ensured and for essential health services facility, district and provincial facilities will be utilized. The camp will be designed and operated in accordance with Workers' Accommodation: Processes and Standards: A Guidance Note by IFC and the EBRD.</li> <li>➤ In the selection of employees, priority will be given to people living in the region and opportunity will be offered to stay in their own homes for these employees. Also, effort will be made to employ women in suitable roles.</li> </ul>	TURCAS BM Subconstructors	Site observations Control of Labor Contracts	Compliance with regulations and guidelines No grievance mechanism records/complaints for working condions
		Operation	<ul style="list-style-type: none"> <li>➤ Personnel Procedure, Human Resources Procedure will be implemented.</li> <li>➤ In the selection of employees, priority will be given to people living in the region and opportunity will be offered to stay in their own homes for these employees. Also, effort will be made to employ women in suitable roles</li> </ul>		Site observations Control of Labor Contracts	Compliance with regulations and guidelines No grievance mechanism records/complaints for working condions
Occupational Health and Safety	Labour Law (No.4857) Occupational Health and Safety Law (No.6331) EBRD PR2 Equator Principles IFC PS2	Construction	<ul style="list-style-type: none"> <li>➤ As part of good business practice to take and properly evaluate the demands, suggestions, complaints and concerns of stakeholders and answer them "Complaints Mechanism" was established.</li> <li>➤ Mobilization of workers' accommodation will be designed in accordance with the standards and regulation. This guide has been marked by IFC and EBRD.</li> <li>➤ As consistent with the IFC PS2 guide, dispute mechanism will be implemented.</li> <li>➤ Sub-sub-contractor management and monitoring plan will be developed.</li> <li>➤ To prevent occupational accidents necessary training will be given to all personnel within the construction site.</li> <li>➤ All employees must wear appropriate protective equipment.</li> <li>➤ Warning signs will be used in the relevant field.</li> </ul>	TURCAS BM Subconstructors	Site observations Site inspections Monitoring records Training records Grievance records	EHS Management Plans preparatnon and implementation No grievance zero occupational accident

	Employee Accommodation: Processes and Standards  IFC ve EBRD		<ul style="list-style-type: none"> <li>➤ All employees will pass health check before starting work.</li> <li>➤ Qualified teaching staff will be preferred.</li> <li>➤ All lifting equipment will be used by the operators.</li> <li>➤ Construction vehicle drivers shall undergo training and they will be certified.</li> <li>➤ In the construction site there will be an infirmary. Who was slightly wounded or injured shall be treated here and more seriously injured personnel will be treated in a hospital Aydin / Kuyucak.</li> <li>➤ Electrical equipment should be checked regularly and necessary maintenance, repair and renewal process will be carried out regularly by electricians.</li> <li>➤ Proper lighting will be provided in the field of construction.</li> </ul>		Monthly meetings with subcontractor and TURCAS BM EHS speialists	
		Operation	<ul style="list-style-type: none"> <li>➤ OHSAS 18001 Occupational Health and Safety Management System Policy will ve developed and implemented for the operation phase of the hospital.</li> <li>➤ Emergency procedure will be developed and implemented.</li> <li>➤ Emergencies will be taken under consideration as before, during and after emergencies and all precautions will be taken in a proactive way.</li> </ul>	TURCAS BM	<p>Accident / incident records inspection,</p> <p>Monthly meetings with HSE and Corporate Communications and Sustainability Expert of TURCAS BM</p> <p>Complaints reports control</p>	<p>Management Plans in place</p> <p>No grievance</p>
Community Health and Safety	EBRD PR4  Equator Principles  IFC PS 4	All Phases	<ul style="list-style-type: none"> <li>➤ Community Health and Safety Management Plan will be developed and implemented</li> </ul>	TURCAS BM  Subcontractors	<p>Field observations</p> <p>Accident / incident records inspection,</p> <p>Monthly meetings with HSE and Corporate Communications and Sustainability Expert of TURCAS BM and Subcontractor</p> <p>Complaints reports control</p>	<p>Management Plans in place</p> <p>No grievance</p>
Stakeholder Engagement	EBRD PR10  Equator Principles  IFC PS1	All Phases	<ul style="list-style-type: none"> <li>➤ As stated in the Stakeholder Engagement Plan, grievance mechanism will be developed.</li> <li>➤ Corporate Communications and Sustainability Expert at Turcas site and Quality, Process Management, and Environmental Specialist are the responsible ones for the Stakeholder Engagement Plan during the construction process. Whether there will be new employment or not within the TBK will be re-evaluated after commissioning the plant.</li> <li>➤ ESIA, ESMMP, Stakeholder Engagement Plan and Non-Technical Summary reports will be shared publicly and will continue throughout the life of the project.</li> <li>➤ Stakeholder Engagement Plan will be revised and updated as needed.</li> <li>➤ The measures and practices against accidents and grievances will be periodically reported to the Turcas BM Management.</li> <li>➤ If needed TURCAS BM Management will make reporting on complaints to external stakeholders in accordance with Complaints Mechanism Process.</li> <li>➤ For all complaints Project Management and Employee Complaint Form" and "Project Management and Employee Complaint Registration Form" will be archived both in written and printed and electronically by Quality, Process Management and Environmental Specialist.</li> <li>➤ General briefings and announcements related complaints mechanism will take place in the relevant official institutions and investors on the website. These announcements will be carried out by the Corporate Communications and Sustainability Specialist.</li> </ul>	TURCAS BM	<p>Complaint mechanism</p> <p>Contact information will be given on brochures and sign boards for communication</p> <p>Complaint records</p> <p>Reporting</p>	<p>No complaint</p> <p>Informing the stakeholders</p>