REPUBLIC OF TURKEY
MINISTRY OF TRANSPORT
AND INFRASTRUCTURE

AYGM
Altyapı Yatırımları Genel Müdürlüğü

ÇINAR®
ENGINEERING
CONSULTANCY INC.

DİVRİĞİ-KARS-GEORGIA BORDER RAILWAY LINE REHABILITATION AND MODERNIZATION PROJECT

OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT PLAN

CNR-ETMIC-OHSMP-001

(Rev.02)

Bağlıca Mah. Çambayırı Cad. Çınar Plaza No:66/5 06790 Etimesgut/ ANKARA

Tel: +90 312 472 38 39 Fax: +90 312 472 39 33

Web: cinarmuhendislik.com

E-mail: cinar@cinarmuhendislik.com

AYGM	**T. C. Ministry of Transport and Infrastructure** **General Directorate of Infrastructure Investments**
Address	**Hakkı Turayliç Cad. No: 5 06338 Emek/Çankaya/ANKARA**
Telephone and Fax Numbers	**+90 (312) 203 10 00**
Project Title	**Divriği-Kars-Georgia Border Railway Line Rehabilitation and Modernization Project**
Project Location	**Divriği – Erzincan – Erzurum – Kars – Georgia Border**
Consultant	**Çınar Engineering Consultancy Inc.**
Address	**Bağlıca Mah. Çambayırı Cad.** **Çınar Plaza No: 66/5** **06790 Etimesgut / ANKARA**
Telephone and Fax Numbers	**Phone: +90 (312) 472 38 39** **Fax: +90 (312) 472 39 33**
Report Submission Date	**September 2024**

TABLE OF CONTENTS

TABLE OF CONTENTS **4**

LIST OF TABLES **5**

ABBREVIATIONS & ACRONYMS **6**

1 INTRODUCTION **7**

1.1 Purpose 7

1.2 Scope and Objectives 8

2 ROLES AND RESPONSIBILITIES **9**

2.1 Project Manager 9

2.2 OHS Expert 9

2.3 Staff of Construction Contractor 10

3 LEGAL FRAMEWORK **11**

3.1 National Legislation 11

3.2 International Standards 12

4 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT **13**

4.1 Risk Assessment and Management 13

4.2 Hazard Identification 13

4.3 Incident Management 14

4.4 Injury Management 14

4.5 Fitness for Duty 14

4.5.1 Health Surveillance 14

4.5.2 Fatigue Management 15

4.6 General Hazard Prevention 15

4.6.1 Working Alone 15

4.6.2 Manual Handling 15

4.6.3 Hygiene and Sanitation 15

4.6.4 Occupational Hygiene 15

4.6.5 Hazardous Substances 16

4.6.6 Personal Protective Equipment (PPE) 16

4.6.7 Safety Signs 16

4.6.8 Fall Prevention 16

4.6.9 Use of Heavy Machinery 16

4.6.10 Traffic Management 16

4.7 Task Specific Hazard Prevention 17

4.7.1 High Risk Work 17

4.7.2 Electrical Work 17

4.7.3 Scaffolding 17

4.7.4 Driving Safety 17

4.8 Access and site security 17
4.9 Site Induction and Site Safety Rules 18
4.10 Workplace inspections 18
4.11 Railway Operation 18
5 TRAINING, REPORTING AND MONITORING 20
5.1 Training 20
5.2 Reporting and Monitoring 20
6 REFERENCES 22

LIST OF TABLES

Table 1. Key Performance Indicators and Monitoring Activities for OHSMP 21

ABBREVIATIONS & ACRONYMS

AIIB	Asian Infrastructure Investment Bank
ALARP	As Low as Reasonably Practicable
AYGM	Directorate General of Infrastructure Investments
BMP	Biodiversity Management Plan
BTK	Baku-Tbilisi-Kars
CHMP	Cultural Heritage Management Plan
CHSMP	Community Health and Safety Management Plan
ÇINAR	Çınar Engineering Consultancy Inc.
CTC	Centralized Traffic Control
DAS	Distributed Acoustic Detection
EHS	Environmental, Health, and Safety
EPRP	Emergency Preparedness and Response Plan
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESIRT	Environment and Social Incidence Response Toolkit
ESMP	Environmental and Social Management Plan
ESRIT	Environment and Social Incidence Response Toolkit
ESS	Environmental and Social Standard
ETMIC	Eastern Türkiye Middle Corridor Railway Improvement Project
GIIP	Good International Industry Practice
HAZID	Hazard Identification
HAZOP	Hazard and Operability Study
HS	Health and Safety
HSE	Heath, Safety, Environment
KPI	Key Performance Indicator
LMP	Labor Management Procedure
LTI	Lost Time Injury
OG	Official Gazette
OHS	Occupational Health and Safety
OHSMP	Occupational Health and Safety Management Plan
PPE	Personal Protective Equipment
PPWMP	Pollution Prevention and Waste Management Plan
QRA	Quantitative Risk Assessment
RAP	Resettlement Action Plan
RCA	Root Cause Analysis
RCA	Root Cause Analysis
RF	Resettlement Framework
SEP	Stakeholder Engagement Plan
WB	World Bank
WBG	World Bank Group

1 INTRODUCTION

1.1 Purpose

The Divriği-Kars-Georgia Border Railway Line Rehabilitation and Modernization Project (covered under Component 1 of Eastern Türkiye Middle Corridor Railway Development Project (ETMIC)) stands as a transformative initiative poised to rejuvenate and upgrade the existing railway infrastructure spanning several provinces in Türkiye. This ambitious project, overseen by the General Directorate of Infrastructure Investments (AYGM) under the Ministry of Transport and Infrastructure (MoTI), seeks not only to modernize rail transportation but also to catalyze regional economic growth and fortify cross-border connectivity.

The multifaceted project unfolds in several strategic components. The preliminary phase involves meticulous land preparation activities, setting the stage for an extensive construction phase encompassing the refurbishment of railway tracks, bridges, and stations. The operational phase is dedicated to ensuring the seamless and sustainable operation of the revitalized railway infrastructure.

The ETMIC project consists of two main components:

- Component-1. Rehabilitation and Modernization of the Divriği-Kars-Georgia Border Railway Line
  - Sub-component 1.1. Design, Infrastructure and Superstructure Works, Electrification, and Signalization of the Divriği-Kars-Georgia Border Railway Line
  - Sub-component 1.2. Design Supervision and Construction Supervision Services for the Rehabilitation and Modernization of the Divriği-Kars-Georgia Border Railway Line
- Component-2. Project Management
  - This component focuses on the effective management and oversight of the project implementation process. It involves the financing and mobilization of specialized firms to provide project management, engineering, social and environmental monitoring, and evaluation services.

The environmental and social risk rating of ETMIC identified as “Substantial” according to the Environmental and Social Framework (ESF) of the World Bank. A contract was signed between AYGM and Çınar Engineering Consultancy Inc. (ÇINAR) in November 2023, for conducting the Environmental and Social Impact Assessment in accordance with the WB standards. The contract entails the preparation of an ESIA Package, which includes the following components:

- Environmental and Social Impact Assessment Report (ESIA)
- Environmental and Social Management Plan (ESMP),
- Community Health and Safety Management Plan (CHSMP),
- Emergency Preparedness and Response Plan (EPRP),
- Traffic Management Plan (TMP),
- Occupational Health and Safety Management Plan (OHSMP),
- Biodiversity Management Plan (BMP),
- Pollution Prevention and Waste Management Plan (PPWMP),
- Cultural Heritage Management Plan (CHMP),
- Labor Management Procedure (LMP),
- Resettlement Framework (RF),
- Stakeholder Engagement Plan (SEP).

During these studies, environmental, social, and culturally sensitive areas in the project impact area were specified in the ESIA reports, and mitigation measures were proposed.

This OHSMP has been prepared to cover all phases of the Project in accordance with the Project Standards including World Bank's (WB) Environmental and Social Standards (ESSs), World Bank Group (WBG) General and Sector-specific Environmental, Health, and Safety (EHS) Guidelines as well as the regulatory frameworks of the Republic of Türkiye and applicable Good International Industry Practice (GIIP).

The main purpose of this OHSMP is to define the requirements for Occupational Health and Safety Management during the construction, rehabilitation and operation phases of the Project, identify management practices and ensure that all practices are in line with the Project Standards.

The main objectives of the OHSMP are set out below:

- **Protection of Workers:** The core purpose of an OHSMP is to safeguard employees and other individuals at the workplace from potential hazards that could harm them physically, mentally. This includes preventing work-related injuries and illnesses.
- **Compliance with Legislation:** The OHSMP aims to ensure that the organization adheres to these legal requirements and standards.
- **Prevention and Control of Hazards:** The plan seeks to eliminate hazards and minimize OHS risks by taking effective preventive and protective measures. This involves identifying risks, implementing safety protocols, and providing necessary training to workers.
- **Continuous Improvement:** Organizations should strive for ongoing enhancement of occupational safety and health. This includes setting realistic, measurable goals for improving safety, assigning responsibilities, and allocating resources to achieve those goals.

It should be noted at this point that site-specific OHSMP will be developed by contractors to identify measures on-site to ensure occupational health and safety at site and it should be approved by AYGM before commencing construction and rehabilitation works.

1.2 Scope and Objectives

This plan presents the Occupational Health and Safety Management principles for the land preparation, construction and operation activities of the Project. Prior to the construction, the Contractor will develop its own OHSMP that will address OHS aspects associated with the project.

OHSMP covers the planned land preparation and construction activities of the Project. It is prepared for implementation by AYGM employees, contractors and sub-contractors. Contractors are also required to adopt OHSMP requirements within their management plans. The contractors' site-specific OHSMP needs to be submitted to AYGM for approval before commencing construction works. Roles and Responsibilities for the implementation of OHSMP are presented in Chapter 2.

2 ROLES AND RESPONSIBILITIES

Involvement of all in implementing, maintaining and continually improving OHS processes is the key to successful completion and achievement of quality objectives set by the management. All project personnel shall therefore be required to be familiar with the content of this plan and shall participate in implementing, maintaining and improving the management system. It is the responsibility of the project manager and all key personnel to ensure that the requirements for quality are fulfilled for works under their responsibility.

All new staff and staff who are given new responsibilities are to be inducted into the requirements set out in this plan in general and into their function and responsibilities in particular

2.1 Project Manager

- Demonstrates the values through OHS Leadership outlined within this OHSMP.
- Provides suitable and sufficient resources (e.g. people, equipment and budget) to ensure OHS department can fully function.
- Reviews OHS performance to provide support and commitment and to ensure that areas of concern are recognized and effectively managed.
- Provides active participation in the implementation of the safety program (e.g., audits, safety committees, training etc.).
- Recognize personnel who continuously demonstrate commitment and proactive leadership qualities with regard to OHS.
- Ensures that OHS shall be the first specific topic, at all Project related meetings.
- Review the OHS performance on an ongoing basis, provide support and commitment to ensure that areas of OHS concern are recognized and managed.
- Establish coordination to resolve the non-compliance issues that cannot be addressed / resolved by the line organization.
- Participate actively in the implementation of the safety program (e.g., audits, safety committees, training etc.).
- Approve specific work method statements and risk assessments for work being carried out, where applicable.
- Will co-ordinate with the OHS Expert and facilitate the weekly OHS meetings.
- Will set a personal example and assist in the proactive promotion of safety as a personal objective.
- Ensure that all sub-contractors at the site are aware and trained in the OHS requirements of the Project.
- Actively participate in construction site/ camps and office inspections.

2.2 OHS Expert

- Provides office OHS support and assistance as required.
- Evaluates and monitors the safety performance on a weekly and monthly basis.
- Develops all necessary OHSAS 18001 Systems Documents
- Fully conversant with the leadership, objectives and expectations of the AYGM HSE Policies.
- Develops core OHS Strategies, Procedures, Instructions etc.
- Effectively manages the safety personnel under his control and provide appropriate direction and training as required optimizing their effectiveness on site
- Establishes an inspection scheme and schedule that involves all levels of site supervision, office personnel and other exposed to the define stage of the project
- Implements an OHS training program

- Reviews the results of inspections at AYGM to identify safety issues and deficiencies, and to advise Supervisors on findings
- Co-ordinates the investigation of any incident (LTI, near miss, property damage etc. as necessary)
- Identifies any trends relevant to incident investigations that become apparent and to ensure that remedial actions have been agreed and corrective action performed and recorded
- Review, compile, analyses, and interpret contractor Key Performance Indicator data to determine causes, trends, and relationships of injury/illness, major severity potential Incidents and all other unplanned events
- Inspects the place of employment, by visual observation and mechanical testing equipment, to observe and report on potential violations of any of the above OHS standards
- Gathers evidence and prepares reports on safety violation complaints and occupational accidents and fatalities
- Reviews accident, injury, and illness reports to detect problem areas related to employee / contractor safety
- Act as a team member of all Incident Investigation committees where required

2.3 Staff of Construction Contractor

- Learning, understanding and complying with all Health & Safety procedures, rules and practice which are applicable to their conduct at all times whether at or away from the workplace
- Employees are responsible for their personal safety and the safety of their co-workers, through both their acts or their omissions
- Be constantly aware of their work situation and report hazardous situations to their supervisors, stopping work and informing their immediate supervision if there is the potential for any harm
- Comply with all health and safety requirements, practices and other initiatives at all times
- Use and maintain the appropriate supplied Personal Protective Equipment, reporting all deficiencies and replacing as necessary
- Reporting substandard procedures or conditions to their immediate supervisor
- Understand that any employee who jeopardizes their safety and health and /or the safety and health of others will be subject to disciplinary action (including immediate termination of employment)
- Working in a safe manner at all times.
- Stopping their immediate or impinging work where they consider the work being performed is ‘at risk’ or unsafe

3 LEGAL FRAMEWORK

3.1 National Legislation

The main national legislation that the project is subject to on occupational health and safety is as follows:

- Occupational Health And Safety Law No. 6331
- Health and Safety Signs Regulation
- Implementing Regulation on the Duties, Authorities, Responsibilities and Training of Workplace Physicians and Other Health Personnel
- Regulation on Emergency Situations in Workplaces
- Implementing Regulation on the Procedures and Principles of Employee Occupational Health and Safety Training
- Communiqué on Workplace Hazard Classes Regarding Occupational Health and Safety
- Regulation on the Duties, Authorities, Responsibilities and Training of Occupational Safety Specialists
- Occupational Health and Safety Services Regulation
- Occupational Health and Safety Risk Assessment Regulation
- Regulation on Occupational Health and Safety Boards
- Regulation on Health and Safety Measures in Asbestos Work
- National Occupational Health and Safety Council Regulation
- Regulation on Stopping Work at Workplaces
- Regulation on Health and Safety Conditions in the Use of Work Equipment
- Regulation on the Protection of Employees from the Hazards of Explosive Environments
- Implementing Regulation on the Use of Personal Protective Equipment in Workplaces
- Implementing Regulation on the Vocational Training of Those Who Will Work in Dangerous and Very Dangerous Class Jobs
- Regulation on the Protection of Employees from Risks Related to Noise
- Regulation on Health and Safety Precautions in Working with Chemicals
- Regulation on Laboratories Performing Occupational Hygiene Measurement, Testing and Analysis
- Regulation on Health and Safety Precautions in Working with Screened Vehicles
- Regulation on the Protection of Employees from Vibration Related Risks
- Regulation on Occupational Health and Safety in Temporary or Fixed Term Jobs
- Communiqué on the Qualifications and Selection Procedures and Principles of the Employee Representative on Occupational Health and Safety
- Regulation on Combating Dust
- Regulation on Support of Occupational Health and Safety Services
- Implementing Regulation on the Prevention and Mitigation of Major Industrial Accidents
- Regulation on Occupational Health and Safety in Construction Works
- Regulation on the Procedures and Principles of Employment of Children and Young Workers
- Communiqué on Supporting Occupational Health and Safety Services
- Regulation on Protection of Buildings from Fire
- Communiqué on Categorization Guide of Personal Protective Equipment
- Communique On Safety Report to be Prepared About Large Industrial Accidents

3.2 International Standards

As the World Bank (WB), Asian Infrastructure Investment Bank (AIIB) and Islamic Development Bank (IsDB) are the lending institutions/banks for the project, the project activities should be performed in line with international standards and Good International Industry Practice (GIIP) in addition to national legislation.

The environmental and social policies called the Environmental and Social Framework (ESF) has been adopted by the World Bank in August 2016. The ESF enhances the World Bank's commitment to sustainable development through ten (10) Environmental and Social Standards (ESSs) that are designed to support Borrowers' E&S risk management. The ESF enables Borrowers to better manage project risks as well as improve environmental and social performance, consistent with good international practices. The ESSs are listed below:

- ESS1: Assessment and Management of Environmental and Social Risks and Impacts
- **ESS2: Labor and Working Conditions**
- ESS3: Resource Efficiency and Pollution Prevention and Management
- ESS4: Community Health and Safety
- ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
- ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities
- ESS8: Cultural Heritage
- ESS9: Financial Intermediaries
- ESS10: Stakeholder Engagement and Information Disclosure

Moreover, WBG General Environmental, Health and Safety (EHS) Guidelines (2007) and WBG Environmental, Health and Safety (EHS) Guidelines for Railways are other documents that should be taken into consideration when carrying out project activities.

The Environmental and Social Safeguards Policy of the Islamic Development Bank (IsDB), as of February 2020, outlines the institution's commitment to promoting sustainable development while minimizing adverse environmental and social impacts associated with its projects.

On the other hand, AIIB incorporates its own policy addressing environmental and social impacts into ESF which was approved in February 2016 and amended through February 2019, May 2021 and November 2022. The ESF consists of three (3) ESSs which are indicated below:

- ESS1: Environmental and Social Assessment and Management
- ESS2: Land Acquisition and Involuntary Resettlement
- ESS3: Indigenous Peoples

It should be noted at this point that evaluations will be made based on WB ESSs among international standards.

4 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT

4.1 Risk Assessment and Management

Risk assessment and the management of risks is a key process for the management of OHS and are central to meeting the expectations of the Project's OHS goals. The approach focuses on identifying, assessing and managing OHS related risks in all Project activities.

The approach is one of systematic identification of hazards, recording of hazards, performing of risk assessments, and devising risk controls to eliminate or reduce risk to at least tolerable level that is "As Low as Reasonably Practicable (ALARP)".

The main categories of activity for which risk assessments are required on a case-by-case basis are:

- Hazard Identification (HAZID);
- Hazard and Operability Study (HAZOP);
- Quantitative Risk Assessment (QRA);
- Layout reviews;
- Design and engineering reviews;
- Utilization of an Action Tracking Register.

The Contractor will implement a number of risk assessment and risk management activities prior to the construction.

The Contractor will organize and facilitate a HAZID study before construction followed by HAZOP exercise between AYGM and the Contractor.

The HAZOP process will look at joint risk assessment to determine risk with the purchase and installation of equipment, facilities design and how the facility will operate once completed, will be used to brainstorm, identify, discuss and agree with the various project teams the appropriate management controls for hazards arising during the execution of the work activities during this phase.

Actions will be taken to resolve potential problems prior to beginning work or mobilization to site, underlining the need to determine levels of risk for all activities to impose appropriate management controls.

The Contractor is required to continue the development of these assessments to ensure that risks are mitigated prior to execution of the work. The Contractor shall develop a comprehensive training program that will be in compliance with Turkish OHS Legislation and the requirements of AYGM.

4.2 Hazard Identification

The identification of hazards is the responsibility of all personnel who access all project areas. Contractor must ensure that hazards with potential to harm personnel are identified, risk assessed and controlled to reduce the risk.

Contractor will provide a range of tools to assist in the identification, assessment and control of hazards and risks pertaining to activities within the project area.

Risk assessment framework is in place to provide for the efficient assessment of risks and allow for the implementation of controls commensurate with the level of risk identified.

Hazards and risks identified through other means such as:

- throughout the course of a work activity;
- during workplace inspections;

- during pre-start inspections of equipment;
- through Incident Analyses;
- during auditing activities; and
- via a range of other methods.

4.3 Incident Management

Contractor must ensure immediate response to and timely reporting, analysis and communication of all incidents to AYGM.

All personnel have a responsibility to report all incidents regardless of severity, to their supervisor as soon as practicable.

All incidents shall be recorded in the approved incident reporting system, and be analysed to a level commensurate with the actual consequence or potential risk rating, whichever is higher.

4.4 Injury Management

Contractor is committed to return workers to meaningful and productive employment at the earliest possible time.

4.5 Fitness for Duty

Contractor employees will undergo a medical assessment to ensure they are medically fit to perform their role before commencing the works and these controls will be repeated annually.

Employees must declare their supervisor of any pre-existing injury or illness which may affect their performance or has the potential to impact on safety and health in the workplace. A medical assessment may also be required to determine associated risks or limitations.

Contractor will ensure work activities do not aggravate a disclosed injury or illness, or impact the safety and health of the workplace.

4.5.1 Health Surveillance

Contractor must ensure that health assessments are carried out in respect of all personnel who engage in specific tasks with the potential for occupational exposure, if:

- an identifiable disease or other adverse effect on the health of the employee may be related to the exposure;
- there is a reasonable likelihood that the disease or adverse effect may occur under the particular conditions of work; and
- there are recognized techniques for detecting indications of the disease or adverse effect.

Health Surveillance is carried out to monitor for possible health effects that may arise following occupational exposures at concentrations above accepted exposure standards. Where a risk assessment determines there is a reasonable likelihood that employees may be exposed to an occupational hazard at levels exceeding accepted values, management shall conduct specific health monitoring to assess actual exposures and the effects of these exposures on personnel.

4.5.2 Fatigue Management

Fatigue is defined as an impaired physical and/or mental condition that arises from an individual's exposure to physical and mental exertion and inadequate or disturbed sleep.

Contractor recognizes that fatigue may arise from hours and patterns of work and activities, and travel/commute time. As it is also influenced by factors outside of work, such as family responsibilities, stress, lifestyle, personal health etc., the management of fatigue is a shared responsibility between management and the individual.

4.6 General Hazard Prevention

Contractor acknowledges the risk associated with project area operations and provides for the reporting and rectification of hazards.

4.6.1 Working Alone

Where personnel are required to work alone, the activities and conditions shall be risk assessed and a safe system of work developed.

4.6.2 Manual Handling

Where a manual handling task is required a risk assessment shall be completed to identify the Hazards. The risk of injury should be assessed for each hazard, and appropriate controls implemented, including manual handling training as appropriate.

Contractor must ensure suitable powered mechanical plant or equipment and lifting aids are provided to enable personnel to avoid heavy manual tasks.

4.6.3 Hygiene and Sanitation

Contractor must supply suitable facilities for personnel including:

- toilet facilities within a reasonable distance from each workspace;
- sanitation and hygiene facilities that are properly maintained;
- eating places that are dry, clean, well ventilated and have adequate seating, tables, hand washing and waste disposal facilities; and
- potable water supplies available to all personnel.

Personnel must not intentionally pollute work areas or misuse or damage any sanitation or hygiene facilities provided.

4.6.4 Occupational Hygiene

Contractor must ensure commitment to monitoring and reporting of occupational health hazards and hazardous occupational environments and implement controls to reduce risk in accordance with all applicable regulations and, wherever practicable, with regard to accepted best practices.

Specific occupational hygiene assessments will be conducted with reference to approved methodologies and applicable standards. Ongoing assessments shall be conducted and as required, controls implemented for the following occupational health hazards:

- airborne contaminants such as metal dusts, respirable silica and asbestos fibres; and
- occupational noise exposure.

Risk assessment, evaluation and control of occupational hazards may be undertaken in consideration of the following broad hazard categories:

- chemical hazards - such as fumes and vapours;
- physical hazards - those related to heat, cold, noise, vibration, ionizing radiation, ultra-violet light and workplace lighting;
- biological hazards - including mosquito borne viruses, potable water contaminants and other water borne hazards such as legionella; and
- ergonomic hazards - including manual handling hazards.

4.6.5 Hazardous Substances

Contractor must ensure the safe control of hazardous substances and reduce the level of exposure to personnel, property and the environment in accordance with the ESIA Requirements.

A risk assessment will be undertaken to assess the health risks to personnel. Health Surveillance may be required to monitor the health of personnel who are at significant risk of exposure to hazardous substances. Material Safety Data Sheet Forms will be present near each chemical and hazardous substance.

4.6.6 Personal Protective Equipment (PPE)

Contractor must ensure that all personnel and visitors wear or use personal protective equipment provided if it is necessary to protect them from harm. Personal protective equipment will be properly fitted, and users instructed in their use.

All personal protective equipment supplied must conform to an applicable be properly maintained and, if it becomes defective, replaced.

4.6.7 Safety Signs

Contractor must ensure that sufficient Safety Signs are posted in workplaces and travel ways to prevent incidents, identify hazards, indicate the location of safety and fire protection equipment, and provide guidance and instruction in emergency procedures.

4.6.8 Fall Prevention

Contractor must ensure that all personnel undertaking activities where there is a risk of a person falling from one level to another do so in a controlled manner to reduce the risk of personal injury. On the other hand, engineering solutions must be applied for regular support and reinforcement of excavation walls in order to prevent risk originated from soil collapse or landslides in excavation areas.

4.6.9 Use of Heavy Machinery

Regular maintenance and inspections must be conducted by the Contractor for safe and efficient machine operation (such as excavators, bulldozers and loaders). Comprehensive training programs must be organized, and certification should be provided for machine operators. Moreover, designation and marking of pedestrian and vehicle traffic areas can help prevent collisions and accidents.

4.6.10 Traffic Management

Clearly defined traffic routes and pedestrian crossing areas are required to be established on the construction site. Traffic management plans and speed limits should be implemented and

regularly reviewed. Moreover, vehicle operators should receive training on construction site-specific traffic rules and hazards.

4.7 Task Specific Hazard Prevention

4.7.1 High Risk Work

Contractor must identify High Risk Work, as detailed in the Danger Classes List Communique Related to Occupational Health and Safety (O.G. 25.11.2009/ 27417), and implement a procedure or risk assessment specific to that task to ensure adequate controls are in place to eliminate, prevent or control possible risks.

Contractor must ensure that personnel performing High Risk Work having relative training with respect to Regulation on The Procedures and Principles of Employee Health and Safety Trainings (O.G. 15.03.2013 / 28648).

4.7.2 Electrical Work

An electrical logbook will be kept at each operational site to record plans, work carried out and other relevant information.

Electrical equipment will be provided with full current isolating devices capable of being secured in the isolating position wherever practicable. Where such features are not practicable, a risk assessment shall be conducted to establish suitable alternative controls, and outcomes communicated to impacted personnel. Moreover, workers involved in land preparation must be educated about potential electrical hazards, trained in the safe use of electrical equipment, and equipped with appropriate PPE.

4.7.3 Scaffolding

Scaffolding may be used for the purpose of supporting access or working platforms, personnel, plant or other material.

Personnel erecting scaffold must ensure that an area where scaffold is to be erected is clear of rubbish and material or equipment not required for immediate use.

Contractor must ensure personnel are not required to use incomplete scaffold. Where incomplete scaffold is to be left unattended, danger tags, warning signs or other appropriate measures will be used to alert personnel and deter them from unauthorized access.

4.7.4 Driving Safety

Contractor must ensure that personnel permitted to drive either a vehicle in Contractor controlled areas or a Contractor vehicle on public roads, hold a current drivers Licence and comply with the relevant road rules for that class of vehicle.

All personnel driving vehicles on Contractor land must obey all traffic directions, drive to conditions, and in accordance with relevant Traffic (Transportation) Management Plan.

4.8 Access and site security

Access to the project area will be restricted by the Contractor and necessary precautions will be taken such as fencing the area and placing relevant signs etc.

It is the Contractor's responsibility to ensure that all site security requirements identified in the Risk Assessment for this activity are fully implemented.

4.9 Site Induction and Site Safety Rules

Site inductions will be carried out by the contractor. Arrangements for site inductions for this project shall be:

- Any new worker coming to the work site will be briefed on the site safety rules including the site logistics plan, hazards, evacuation procedures, emergency and first aid procedures, and the duties and responsibilities of all persons on site.
- A Site Induction briefing and Site Safety Rules will be developed in Turkish and in English.
- All attendees of the Site Induction briefing will be recorded.
- Visitors will be given a brief site induction (based on an either oral or written) and will be accompanied at all times during their visit to the site.

4.10 Workplace inspections

Inspections of the project site should be carried out weekly. Contractor will undertake weekly inspections of the whole work site, and specifically of:

- Equipment
- Scaffolds
- Small tools
- Lifting devices
- Electrical cables
- Fire extinguishers
- First aid kits

Records of the inspections will be kept by OHS Expert

4.11 Railway Operation

It should be remembered that health and safety issues regarding railway operation are highly related to the measures taken for the Community Health and Safety and Emergency Preparedness and Response. The implementation of a safety management system, underpinned by a genuine safety culture within a railway undertaking is key to unlocking future safety improvements.

Adequacy of the safety in railways can be controlled via examining:

- Collisions of trains
- Derailments of trains
- Level-crossing accidents
- Accidents to persons
- Fires in rolling stock
- Other accidents related to maintenance activities

To prevent these types of incident, significant occupational health and safety measures must be taken, such as;

- Major railway failures that can lead accidents such as broken wheel or axle and broken rail or track buckle will be controlled via control train and OHS Personnel of TCDD Monthly.
- Suitability of the signalisation system will be controlled in a daily manner.
- No personnel will be working without having necessary trainings.
- Level Crossings will be controlled daily.

- Regular maintenance and safety checks of the equipment/machineries/rails will be conducted.
- Occupational Health and Safety policies must be established and implemented at all operation sites.
- Operation will be stopped immediate if any factor that may lead accidents is reported.
- Emergency plans will be developed by ensuring all employees are familiar with them.

5 TRAINING, REPORTING AND MONITORING

5.1 Training

Contractor will be committed to providing employees with the necessary training to perform their work safely and effectively.

All personnel are required to complete the induction training. This induction informs participants of the minimum safety, environmental and security requirements to gain access to project area.

On completion of the Induction Training, personnel shall be suitably inducted to their work area. They shall be informed of the hazards and controls, the location of firefighting and first aid equipment, and emergency response and evacuation procedures as a minimum.

It will be the responsibility of the OHS Expert to control and determine the training needs of the personnel, prepare the training programme and have it approved by the project manager. Trainings may be renewed, or additional trainings may be provided if it is seen necessary by OHS expert or Project Manager in case of a significant incident etc.

5.2 Reporting and Monitoring

Daily inspections will be carried out under the coordination of the OHS Expert. All serious incidents including near misses will be reported, investigated, and documented immediately to AYGM and WB. In this scope, the World Bank and AYGM will be promptly notified of any incident or accident related to the Project which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers including but not limited to; incidents and accidents encountered during construction works, environmental spills, etc. Sufficient detail will be provided regarding the incident or accident, findings of the Root Cause Analysis (RCA), indicating immediate measures or corrective actions taken or that are planned to be taken to address it, compensation paid, and any information provided by any contractor and supervision consultant, as appropriate. It will be ensured that the incident report is in line with the World Bank's Environment and Social Incidence Response Toolkit (ESIRT). Subsequently, as per the Bank's request, a report on the incident or accident and propose any measures to prevent its recurrence will be prepared.

All contact and reporting to government officials is to be done by the OHS Expert in consultation with Project Manager. In regard to injuries, all compensation carriers have specific legislative reporting requirements for the employer, worker, and attending physician(s).

All incidents will be reported to the OHS Expert immediately. All incidents that require medical attention or have the potential for medical attention require the immediate notification of the Project Manager. All serious incidents will be reported to the Project Manager immediately – the notification of any government agencies will be coordinated by Project Manager.

Regular monitoring reports (quarterly) will be prepared to assess the implementation of this Plan.

Within the scope of OHSMP, the key performance indicators and monitoring activities for the OHSMP are indicated in Table 1.

Table 1. Key Performance Indicators and Monitoring Activities for OHSMP

Key Performance Indicator	Target	Timeframe	Record	Responsibility
H&S Audit and Review Schedule	Full compliance with the Project Standards	At least once a week	H&S Records Audit Reports	HS Expert
H&S Policies communicated to all project personnel	Raising awareness among all project personnel	At least once a month	Minutes of Meetings Training Records	HS Expert
Management engagement in H&S Meetings/ Reviews to demonstrate visible leadership	Establishment of the internal control/audit mechanism	At least once a month	Minutes of Meetings	Project Manager
Weekly H&S Meetings	Zero non-compliance with project standards	At least once a week	Minutes of Meetings	HS Expert
H&S Walkdowns	Zero non-compliance with project standards Zero incidents/accidents	At least once a week	H&S Records Audit Reports	HS Expert
H&S Induction - All project site personnel received before commencing the work at site	Raising awareness among all project personnel	Before starting the works	Training Records	HS Expert
Emergency Drills	Prepare all project personnel for potential emergency scenarios	Twice a year	H&S Records Audit Reports	Project Manager
OHS Reporting	Zero non-compliance with project standards	Quarterly	Quarterly Monitoring Reports	Project Manager

6 REFERENCES

- Environmental and Social Impact Assessment Report (CNR-ETMIC-ESIA-001)
- Environmental and Social Management Plan (CNR-ETMIC-ESMP-001)
- Community Health and Safety Management Plan (CNR-ETMIC-CHSMP-001)
- Emergency Preparedness and Response Plan (CNR-ETMIC-EPRP-001)
- Traffic Management Plan (CNR-ETMIC-TMP-001)