



**REPORT**

# Khorezm Solar Project

## *Waste and Hazardous Materials Management Plan (WHMMP) - Construction Phase*

Submitted to:

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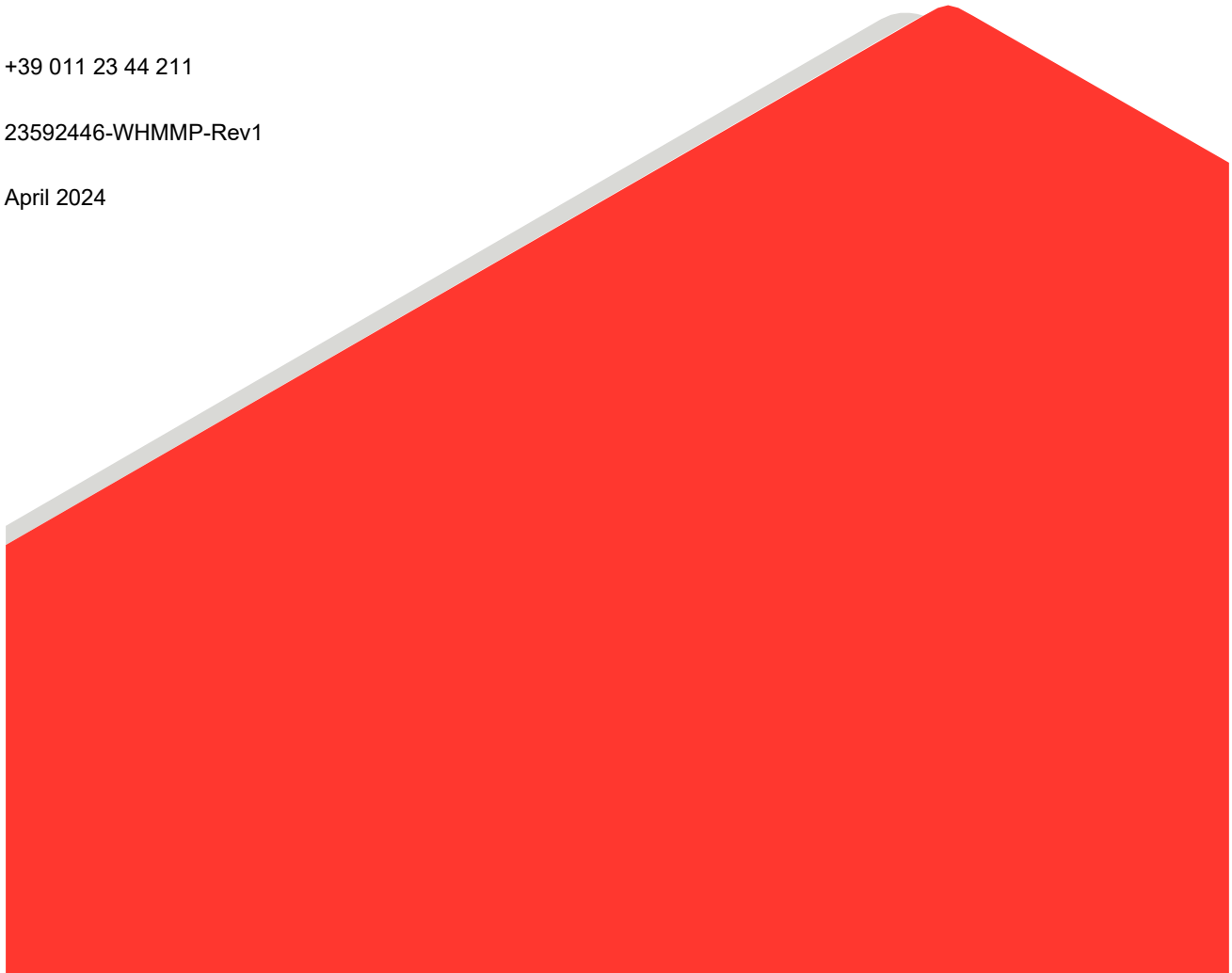
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## Acronyms and Abbreviations

AQMP	Air Quality Management Plan
CHSMP	Community Health and Safety Management Plan
CPE	Collective Protective Equipment
EBRD	European Bank for Reconstruction and Development
EHS	Environmental, Health and Safety
EPC	Engineering, Procurement and Construction
EPRP	Emergency, Preparedness & Response Plan
E&S	Environmental and Social
ESIA	Environmental and Social Impact Assessment
ESMS	Environmental and Social Management System
GIIP	Good International Industry Practice
GN	Guidance Note
HSES	Health, Safety, Environment & Social
HSESMP	Voltalia HSES Management Plan
H&S	Health and Safety
ID	Identification code
IFC	International Finance Corporation
KPI	Key Performance Indicator
MP	Management Plan
MSDS	Materials Safety Data Sheet
MW	Megawatt
Obs.	Observed
OHSMP	Occupational, Health and Safety Management Plan
OTL	Overhead Transmission Line
PPA	Power Purchase Agreement
PPE	Protective Personal Equipment
PPP	Public-Private Partnership
PR	EBRD Performance Requirements
Project	Khorezm Solar Project

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PS	IFC Performance Standards
PTW	Permit-To-Work
PV	Photovoltaic
RAMS	Risk Assessment and Method Statement
RCM	Resolution of the Cabinet of Ministers
Ruz	Republic of Uzbekistan
SoilMP	Soil, Drainage and Erosion Control Management Plan
SPPP	Solar Photovoltaic Power Plant
WBG	World Bank Group
WEEE	Waste from Electrical and Electronic Equipment
WESMP	Water and Energy Sources Management Plan
WHMMP	Waste and Hazardous Materials Management Plan

## 1.0 INTRODUCTION

This document is the Waste and Hazardous Materials Management Plan (WHMMP) for the Khorezm Solar PV Project (the Project) construction phase, and it identifies and presents the framework and the strategy for managing Project's E&S impacts and risks associated to waste and hazardous materials' related aspects. This Plan sets the principles according to which waste and hazardous materials management will be performed for the Project and presents a plan of activities to be carried out throughout the Project's construction phase. This Plan has been developed in accordance with the applicable requirements, including the Uzbek regulatory framework, International Finance Corporation (IFC) Performance Standards (PSs), EBRD Performance Requirements (PRs) and World Bank Group (WBG) General Environmental, Health and Safety (EHS) Guidelines.

### 1.1 Purpose, Scope and Applicability

The main objective of this document is to develop and implement plans and procedures to integrate environmental, health, safety and social aspects related to waste and hazardous materials within the overall Project management framework throughout the Project construction phase.

This document also provides guidelines to the Engineering Procurement and Construction (EPC) Contractor and also sub-contractors to address waste and hazardous materials management according to the standards mentioned above (Uzbek regulatory framework, IFC PSs, EBRD PRs and WBG General EHS Guidelines).

The Scope of this Plan includes:

- The definition of Project standards related to waste and hazardous materials during the construction phase;
- The definition of responsibilities, commitments, operating procedures and instructions for the implementation of this Plan;
- The identification of adequate mitigation measures applicable to the Project in relation to waste and hazardous materials' management. A mitigation hierarchy will be adopted to anticipate and avoid, or where avoidance is not possible, minimize and restore impacts on the environment;
- The establishment of a monitoring program to assess the effects of residual impacts on the environment;
- The identification of actions to measure the performance of monitoring activities;
- The establishment of a guideline to report the results of monitoring and periodic audits and provide for corrective actions as necessary, in order to achieve the planned objectives.

This Plan applies to all Voltalia normal and expected construction activities related to the Project and does not specifically address any emergency situations. Emergencies, their procedures, their reporting, and the coordination with local emergency services are addressed in the Emergency Preparedness & Response Plan (EPRP). This Plan provides requirements and guidance for Contractors and Sub-Contractors involved in the construction activities of the Project, including all secondary and associated facilities, whether temporary or permanent, including the workers camp, if applicable. No construction activities shall commence until approval of this Plan.

This section shall be read in conjunction with the management plans identified below.

### 1.2 Relationship with other Management Plans

The WHMMP is to be read in conjunction with the following management plans:

- Soil, Drainage and Erosion Control Management Plan (SoilIMP);

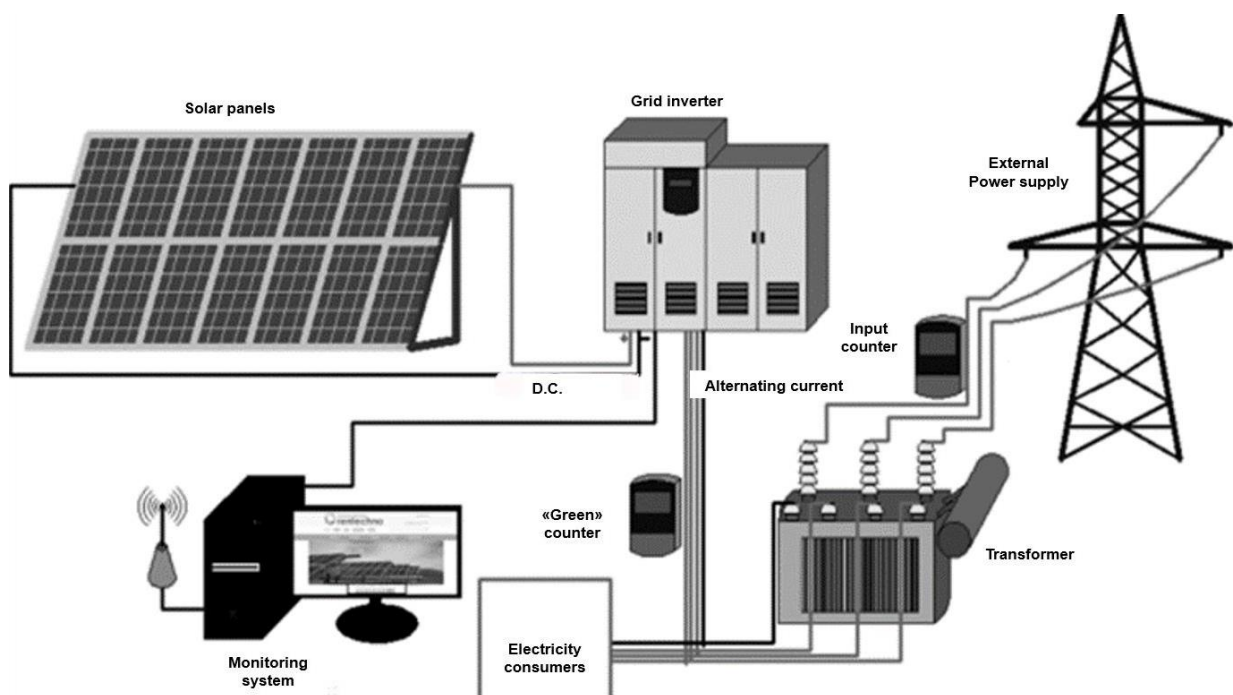


- Wastewater Management Plan (WMP);
- Water and Energy Sources Management Plan (WESMP);
- Air Quality Management Plan (AQMP);
- Emergency, Preparedness & Response Plan (EPRP);
- Occupational Health and Safety Management Plan (OHSMP);
- Community Health and Safety Management Plan (CHSMP); and
- Voltalia HSES Management Plan (HSESMP).

### 1.3 Project Overview

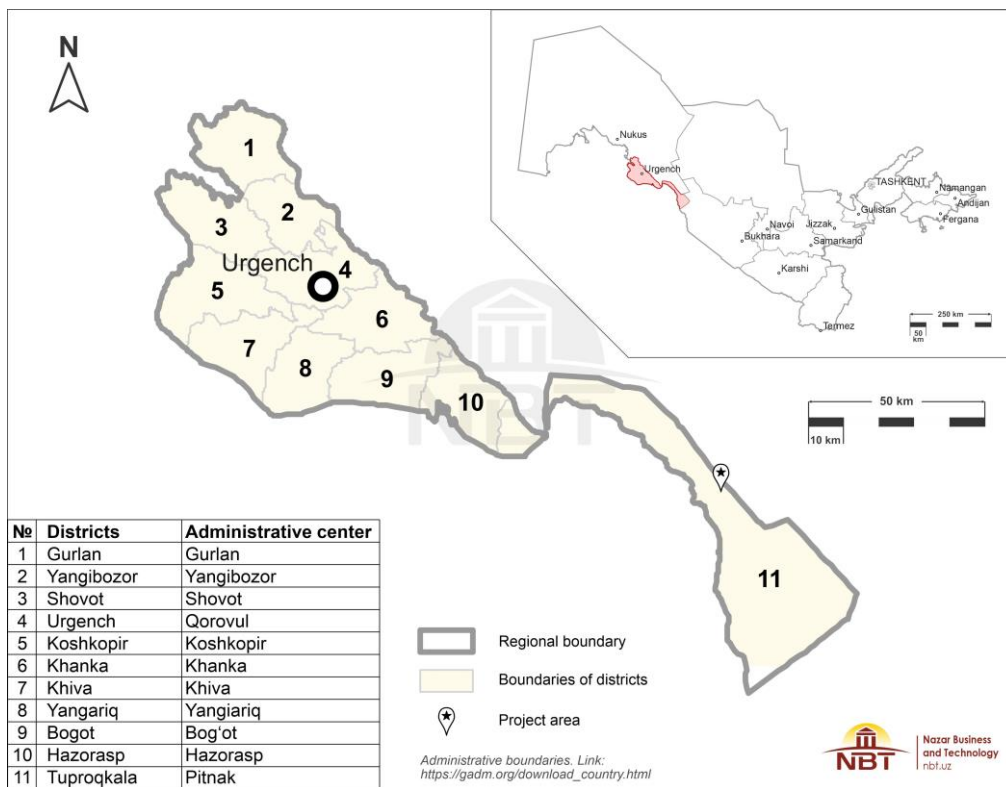
The Khorezm Solar PV Project (the Project) consists in the development of:

- A 100 MW solar photovoltaic power plant (SPPP) and a step-up 35/220 kV substation. Approximately 200.000 pieces of solar panels will be installed, with an average power of 675 watts per panel.
- An associated 3.2 km overhead 220kV transmission line that will connect the SPPP to the existing Sarimay substation location north-west of the project; and
- the construction of two additional extension bays for the existing Sarimay substation to allow for the additional incoming capacity to be generated by the SPPP.



**Figure 1: Schematic diagram of a solar photovoltaic power plant operation.**

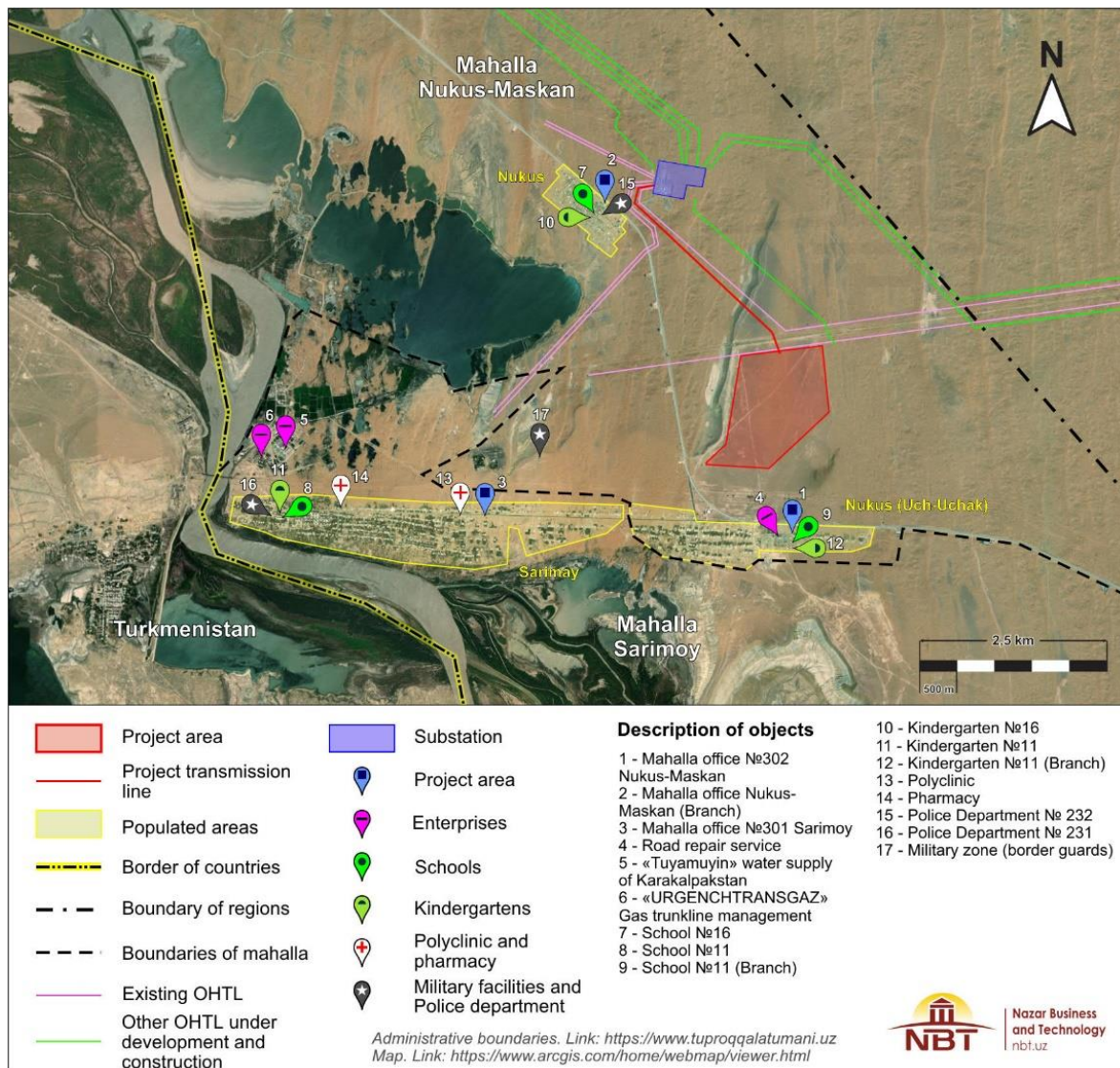
The Project will be carried out in the Tuprokkala district in the Khorezm region of Uzbekistan, located 120 km south-east of Urgench city, close to the border with Turkmenistan and near the Amu-Darya River. The limits of the Khorezm region and the approximate location of the Project are observed in Figure 2.



**Figure 2: Project Region. Source: NBT, 2023.**

The Project is being implemented as part of a Public-Private Partnership (PPP) between the Government of the Republic of Uzbekistan represented by the Ministry of Energy (the Project Proponent), and FE LLC Sarimay Solar, an entity created in Uzbekistan by Voltalia S.A. (the Project Developer) for the purpose of this Project. The selection process for the EPC Contractor is currently ongoing (as per the release date of this document).

The Project covers approximately 177 hectares which will be utilized entirely for the construction and installation the solar photovoltaic power plant. The Sarimay Switching Station (SS) can be found at 3 km north-east of the Project site, which will receive the Project’s produced energy. The two nearest settlements are the two villages of Sarimay and Nukus. The Project layout and some characteristics of its surroundings, such as communities and infrastructure are shown in Figure 3 below.



**Figure 3: Project area and surroundings. Source: NBT, 2023.**

The estimated construction time of the Project will be 1 year and the estimated total workforce required during the peak construction period is estimated to be between 200-250 workers, including technician and low-skilled personnel.

Initial activities, including site preparation, will entail several activities, which can occur simultaneously in different areas. Some examples include:

- Site works preparation and accommodation;
- Unloading/loading equipment;
- Mobilization of vehicles, workers and equipment, materials transportation;
- Vegetation clearing and land stripping;
- Earthworks (excavations, landfill, surface levelling/grading);
- Adaptation of existing roads and implementation of temporary construction roads;

- Installation of lifting cranes and warehouses for storage of delivered power equipment and building materials;
- Concrete pouring under the foundation of buildings and structures;
- Buildings and structures mounting;
- Mechanical and electrical works;
- Performance tests;
- Building of sewage septic tank and firefighting water tank;
- Site clean-up and demobilization activities, among others.

The operation lifecycle is considered to be approximately 25 years. The workforce during operation is expected to be around 20 and will include skilled technician, security guards, and support staff.

During the operation these modules will need to be cleaned periodically depending on soiling and sand/silt accumulation. A preventative maintenance program will be established for maintenance of the inverters, mounting structures, surge arresters, cables and PV junction boxes, meteorological station, security, fencing and gates, ditches and drainage culverts as well as all sub-station components including services and septic tank. Scheduled regular maintenance will be carried out by the National Electric Grid of Uzbekistan (NEGU).

On the other hand, the OTL will be designed for continued operability (24 hours per day, 7 days per week) depending on the regime and parameters of the national and regional power transmission grid. From the beginning of the operations, the transmission line will work without the continuous presence of personnel.

### 1.3.1 Project Waste and Hazardous Materials' Needs and Effects

Waste generation and management is one of the most significant aspects at the Project's construction phase. The main types of waste expected to be produced and how they are intended to be handled are listed in Table 1.

The classes of danger are given by the Resolution No. 14 of the Cabinet of Ministers, dated 21/01/2014, which is better explained in section 2.1 below in this document.

**Table 1: Waste to be generated per year during the construction phase. Source: Khorzem Solar Project Environmental and Social Impact Assessment, WSP, 2023.**

No.	Description of waste	Expected amounts of waste generation		Class of danger	Methods of disposal
		Value	Units of measure		
1	Topsoil	250.2	tons	Class 5 – not dangerous	Topsoil will be stored in the territory of the construction site for further reclamation of disturbed lands.
2	Burned-out LED lamps	5.47	kg / year	Class 4 – low hazard	This will be handed over for processing of electronic products. This shall be carried out in Urgench City and shall be a coordinated effort with the Ministry of Ecology.
3	Wastepaper	1.5	tons / year	Class 5 – not dangerous	This will be handed over to the wastepaper recycling center located in Pitnak City. This service shall be requested to the local branch of Ministry of Ecology.
4	Plastic bottles	345	kg / year	Class 4 – low hazard	This will be handed over to the polymer materials recycling center located in Pitnak

No.	Description of waste	Expected amounts of waste generation		Class of danger	Methods of disposal
		Value	Units of measure		
					City. This service shall be requested to the local branch of Ministry of Ecology.
5	Broken glass and ceramics	250	kg / year	Class 5 – not dangerous	This will be handed over to the glass industry for recycling in the Sarimay landfill collection point.
6	Industrial oil waste	189	kg / year	Class 2 - hazardous	This will be handed over to LLC "Uz-Prista"(Khorezm Branch), based on agreement with Ministry of Ecology as per the requirements of the Resolution of the Cabinet of Ministers of RUz, #258 RCM 04.09.2012.
7	Metal scrap	1.6	tons / year	Class 5 – not dangerous	This will be handed over to State Organization "NGMK", Khorezm Branch for collecting metal scrap. "vtorchermet".
8	Rubber waste	200	kg / year	Class 4 – low hazard	This will be handed over to a Tashkent based Private Organization LLC "Rubber Product".
9	Food waste	24	tons / year	Class 5 – not dangerous	This will be transferred to livestock feed local communities from Sarimay or Nukus villages.
10	Wooden pallets	6.3	tons / year	Class 5 – not dangerous	This will be transferred to the population for household needs and construction work.

According to the information in Table 1, among 10 major types of waste, only the industrial oil waste is classified as Class 2 (hazardous). Three types of waste are classified as Class 4 (low hazard) and six types of waste are classified as Class 5 (not dangerous). The Project has identified disposal methods for all the major waste streams.

Waste generated by the Project can add increased pressure on waste disposal systems and infrastructures, particularly in cases where they are not well developed, and already insufficient or facing difficulties, potentially leading to an overall worsening of the waste management.

Potential environmental impacts may arise from the situations listed below:

- hazardous waste is not properly stored onsite prior to collection;
- waste is not properly transported and therefore is released to the environment;
- disposal sites are not designed and operated to adequate standards; and
- inert wastes generate local nuisance due to dust and litter from the handling of the materials themselves.

In case the management of the waste is done inappropriately, environmental impacts can potentially lead to soil or water bodies pollution, especially in the case of hazardous waste streams. Chemicals in contact with soil and water bodies can result in lasting damage to the functionality of the receiving bodies. While these effects of pollution are generally reversible, depending on the type of chemical product, it can take a long time (decades or more) to adequately restore baseline conditions, and the cost of corrective action can be extremely high. Furthermore, pollution generated from hazardous materials, or contact with these materials can lead to impacts on human health, as well as the health of surrounding species, be it flora or fauna;

Local landfills in the Khorzem region do not present all the characteristics required by international standards requirements. For this reason, this plan proposes stringent measures to lead to the minimization of waste

generation, as well as the maximization of its reuse and recycling whenever possible. This Plan aims to correctly manage waste during the construction phase of the Project, thus preventing impacts on existent infrastructure and the environment from occurring.

## 2.0 REFERENCE & LEGAL REQUIREMENTS

This section includes the policies, standards, and requirements of reference for this Plan that are applicable for the construction phase of the Project.

Project standards are described in detail the Project ESIA Section 02 – Regulatory Framework and are listed below:

- Relevant national legislative requirements;
- IFC Performance Standards;
- EBRD Performance Requirements;
- World Bank Group EHS Guidelines;
- Good International Industry Practices; and
- Voltalia's policies, related practices, and procedures.

The Project is expected to achieve whichever is more stringent amongst these. The relevant international standards shall be also directly applicable in the absence of applicable Uzbek standards.

### 2.1 National Requirements

The Law of the Republic of Uzbekistan “On Wastes” (2002)<sup>1</sup> amended in 2019 is the main national requirement for the Project. The purpose of the Law is the regulation of the relations in the sphere of waste management. The main targets of the Act are the prevention of negative impacts of waste on human life, human health, environment, reduction of waste formation and rational use in economic activity thereof. Some of the most relevant acts are as follows. The activity of legal persons in the sphere of waste management must ensure safety for human life and death, and also environment (art. 17). Rates of waste formation shall be elaborated and validated by legal persons by agreement with the authorized state institutions in the sphere of waste management (art. 18). Waste that is subject to purchase and sale, import-export operations, and also hazardous waste subject to transportation shall be submitted for ecological certification for compliance with sanitary regulations and standards, and ecological standards set for waste management. Transportation of hazardous waste shall be carried out by special transport means in the presence of ecological certificate and authorization issued in conformity with the modalities established by the legislation currently in force. The transport organization shall be held responsible for safe transportation of hazardous waste (art. 20).

Other relevant Uzbek resolutions and sanitary norms related to waste management include:

- Resolution No. 14 of the Cabinet of Ministers validating the “Regulation on drafting and coordination of environmental standards”, dated 21/01/2014. In the Resolution, in addition to the procedure for drafting environmental standards for emissions and discharges, the regulation of waste generation and disposal is also considered. A classification catalogue of wastes is given, according to which the waste belongs to a particular hazard category:
  - **I Class** - Highly Hazardous Waste;

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<sup>1</sup> [Law No. 362-II on waste. | FAOLEX.](#)

- **II Class** - Hazardous Waste;
  - **III Class** - Moderately Hazardous Waste;
  - **IV Class** - Low Hazard Waste;
  - **V Class** - Not Dangerous Waste.
- Resolution No. 258 of the Cabinet of Ministers validating the “Regulation on delivery, collection, storage and transportation of waste industrial oil”, dated 04.09.2012;
  - Resolution No. 425 of the Cabinet of Ministers about “measures for enhancement of procedure for the handling of scrap, waste of non-ferrous and ferrous metals”, dated 06.06.2018;
  - Resolution No. 35 of the Cabinet of Ministers on “Approval of the rules for the transportation of dangerous goods by road transport in the Republic of Uzbekistan”, dated 16.02.2011;
  - Resolution No. 40 of the Cabinet of Ministers on “Measures for further improvement of the order of construction wastes management”, dated 28.01.2021;
  - Resolution No. 95 of the Cabinet of Ministers validating regulatory legal acts in the field of waste management, dated 06.02.2019. This Decree validates the Regulation on collection and removal of domestic liquid and solid waste, envisaging the procedure for rendering services of collection, transportation and disposal of domestic liquid and solid waste by specialized organizations;
  - Order of the Ministry of Finance of the Republic of Uzbekistan about “Approval of the Regulations on procedure for write-off from balance of fixed asset cost”, dated 16.08.2004 (for the disposal of fixed assets);
  - SanPiN No. 0127-02 “Sanitary rules for the inventory, classification, storage and disposal of industrial waste”, dated 29.07.2002. This regulation ensures optimal accounting and hygienic inventory of industrial waste, determination of the toxicity index and classification of industrial waste by hazard classes;
  - SanPiN No. 0128-02 “Hygienic classifier of toxic industrial wastes in the conditions of the Republic of Uzbekistan”, dated 29.07.2022. Hazardous waste is classified into four groups known as “hazard classes”;
  - SanPiN No. 0157-04 “Sanitary requirements for the storage and disposal of municipal solid waste at special landfills in the conditions of Uzbekistan”, dated 12.07.2004;
  - SanPiN No. 0300-11 “Sanitary rules and standards for the organization of collection, inventory, classification, neutralization, storage and disposal of industrial waste in Uzbekistan”, dated 16.11.2011;
  - SanPiN No. 0158-04 “Sanitary rules and norms for the collection, transportation and disposal of asbestos-containing waste in the conditions of Uzbekistan” dated 29.10.2015;
  - SanPiN No. 0317-15 “Sanitary rules and norms for collection, storage and disposal of waste in medical and preventive treatment facilities of the Republic”, regulating the disposal of medical waste.

## 2.2 International Standards

The Project is required to meet requirements of international lending financing institutions, specifically:

- i) The International Finance Corporation (IFC) Performance Standards (PS) 2012 and relevant Guidance Notes (GN), in particular:
  - a. IFC PS3 and IFC GN3 – Resource Efficiency and Pollution Prevention which outlines a project-level approach to resource efficiency and pollution prevention and control in line with internationally disseminated technologies and practices. In addition, this Performance Standard

promotes the ability of private sector companies to adopt such technologies and practices as far as their use is feasible in the context of a project that relies on commercially available skills and resources.

- ii) EBRD Performance Requirements (PR) (2019), in particular:
  - a. EBRD PR 3 on Resource Efficiency and Pollution Prevention and Control, which establishes general requirements with regards to waste management:
    - The Project must make an effort to avoid the generation of hazardous and non-hazardous waste and reduce their harmfulness as much as possible. When waste generation cannot be avoided, waste must be reused, recycled or recovered, or used as a source of energy. When waste cannot be recovered or reused, waste must be treated and disposed of in an environmentally correct way;
    - The Project must identify viable alternatives (financially and technically) for the environmentally correct disposal of any hazardous waste, considering the limitations applicable to transboundary movement; and
    - When waste disposal is moved off-site and/or carried out by third parties, documentation of the chain of custody to the final destination must be obtained and only contractors who are reputable and legitimate companies licensed by the relevant regulatory agencies should be hired. The Project must ensure that licensed disposal sites are being operated to acceptable standards. Where this is not the case, alternative disposal options should be considered, including the possibility for the Project to develop its own recovery and disposal facilities at the Project site.
- iii) EBRD also requires the Project to be compliant with the Directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment. This Directive sets out provisions on the restriction of the use of hazardous substances in electrical and electronic equipment. The aim is to contribute to the protection of human health and the environment. The Directive covers also the environmentally sound recovery and waste disposal. Annex II of the Directive lays down the list of restricted substances and related maximum tolerated values.
- iv) EBRD also requires the Project to be compliant with some key requirements of the Directive 2012/19/EU of the European Parliament and of the Council (WEEE Directive) on waste electrical and electronic equipment. This Directive lays down measures to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste from electrical and electronic equipment (WEEE) and by reducing overall impacts of resource use and improving the efficiency of such use in accordance with articles 1 and 4 of Directive 2008/98/EC. Specific provisions concern product design, separate collection, disposal and transport of collected WEEE, proper treatment and shipments of WEEE;
- v) World Bank IFC General and Sector-Specific EHS Guidelines, more specifically:
  - b. Section 1.5 – Hazardous Materials Management. These guidelines apply to projects that use, store, or handle any quantity of hazardous materials (Hazmats), defined as materials that represent a risk to human health, property, or the environment due to their physical or chemical characteristics;
  - c. Section 1.6 – Waste Management. These guidelines state that facilities that generate and store waste should practice the following:



- Establish waste management priorities at the outset of activities;
- Identify EHS risks and impacts and consider waste generation and its consequences;
- Establish a waste management hierarchy that considers prevention, reduction, reuse, recovery, recycling, removal and finally disposal of waste;
- Avoid or minimize the generation of waste materials, as far as practicable;
- Identify where waste generation cannot be avoided but can be minimized or where opportunities exist for, recovering and reusing waste; and
- Where waste cannot be recovered or reused, identify means of treating, destroying, and disposing of it in an environmentally sound manner.

d. Industry Sector Guideline “Electric Transmission and Distribution”, which addresses construction site waste generation.

## 2.3 Necessary Permits and Approvals

The types of activities required to obtain a license on the territory of the Republic of Uzbekistan (named licensing activities) are established by Law No. ZRU-701 “On licensing, authorization and notification procedures”, dated 14.07.2021. Licensing and authorization procedures are introduced in cases where the implementation of certain types of activities (actions) by natural persons or legal entities may entail harm to the life and health of citizens, damage to the rights and legitimate interests of natural persons and legal entities, damage to public safety and (or) harm to the environment.

Regarding to construction waste management, the main requirements for the collection and temporary storage of construction waste is given in Chapter 3 of RCM No. 40 of 28.01.2021.

The necessary permits on disposal of construction wastes from construction sites and domestic wastes from construction camps must be obtained prior to commencement of the construction works and opening construction camps. These permits are issued by the Regional Waste management company under Ministry of Ecology, Environmental Protection and Climate Change of the Republic of Uzbekistan (MEEPCC).

According to RCM No. 40 of 28.01.2021:

- Chapter 4, Article 20: *Removal of waste from construction waste generation sites and temporary storage points by waste collectors (in accordance with their technical capabilities) or persons engaged in the collection, transportation, disposal and (or) processing of this waste, on the basis of an agreement – or for the disposal of such waste is carried out organizations that have specially designated facilities for this (construction or household waste landfills).*
- Chapter 4, Article 20: *Carriers of construction waste to provide the specified services to organizations that collect, dispose and (or) process construction waste, or organizations that have specially designated facilities (construction or household waste landfills) for the collection of such waste, must have a document (agreement) confirming the placement of waste.*
- Chapter 4, Article 27: *Control over the fulfilment of obligations under the contract by construction waste carriers is carried out by garbage collectors.*
- Chapter 8, Article 39: *Territorial bodies of the State Committee for Ecology exercise state supervision over compliance with environmental protection legislation in the field of construction waste management. [...] When conducting a state environmental assessment, primary accounting documents*

*for waste stored and transported to a temporary storage point are submitted by waste producers at the request of officials carrying out the state environmental assessment.*

In addition, according to RCM No. 35 of 16.02.2011:

- *Article 4. Transportation of dangerous goods by motor vehicles is carried out on the basis of a contract of carriage, according to which the carrier undertakes to deliver the cargo entrusted to him by the consignor to the destination and deliver it to the consignee, and the consignor undertakes to pay the established fee for the carriage of cargo.*
- *Article 5. The carrier must deliver the cargo within the time limits stipulated by the contract of carriage. The cargo delivery time may be extended due to force majeure circumstances or by mutual agreement of the parties. Any delay in cargo delivery is noted on the waybill indicating the reasons and time of delay.*
- *Article 51. Transportation of especially dangerous goods is carried out with the obligatory accompaniment of an especially responsible person - a representative of the consignor (consignee) who knows the properties of dangerous goods and knows how to handle them.*

In relation to E-waste disposal procedure in Uzbekistan:

E-Waste Disposal procedure in Uzbekistan for legal entities should have a legal basis for the disposal of office equipment. Disposal can be carried out only after writing-off fixed assets from the company's balance sheet. The disposal of fixed assets in Uzbekistan is controlled in accordance with the national standard #5 and the Regulation on write-off of fixed assets in Uzbekistan # 1401 (dated August 29, 2004). This Decree regulates the procedure for writing-off the value of fixed assets from the balance sheet in all enterprises, including budgetary, state and unitary enterprises.

According to Clause 8, Appendix 1 of RCM No. 95 of 06.02.2019: Solid household waste generated as a result of replacing morally and physically obsolete office equipment (computers, printers, etc.), the dimensions of which do not allow placing them in containers with a volume of 0.75 m<sup>3</sup>, are classified as bulky household waste. The removal of such wastes is carried out by service disposal organization for a separate fee at contractual prices and can be carried out by it outside of its service area.

There are numerous companies that specialize in recycling and disposal of office equipment in Uzbekistan. This kind of disposal organizations should have proper documentation to ensure that effective control is in place to guarantee compliance with all state environmental regulations.

One of this disposal organizations is "Toshrangmetzavod Recycling", LLC. It has all necessary permits for the write-off and disposal of office equipment, as well as a permit to work with precious metals in accordance with the legislation of the Republic of Uzbekistan.

Typical regulations for correct disposal involve several stages. First, it is necessary to conduct an inventory and form a list of equipment subject to decommissioning, repair or modernization. It must be coordinated with the accounting department, checking the completion of the amortization period, and prepare a list. The write-off procedure usually depends on the decision of the "internal write-off commission".

Recycling firms typically provide these services as well, providing customers with all the documentation they need to report.

After the conclusion of a disposal agreement with a company that has the right to this type of activity, a Defective Act and an Act of Acceptance and Transfer of the decommissioned equipment are drawn up. The disposal company arrives and collects the decommissioned equipment. After dismantling the equipment, an Act of

completed work is drawn up with a calculation of the waste received, which is sent for further processing (Vtorchermet, Vtortsvetmet and plastic bottle recycling plants).

### 3.0 ROLES AND RESPONSIBILITIES

Voltalia is responsible for ensuring that the measures set out in this Plan are implemented in full and this will be achieved by verifying the compliance of the EPC contractor and subcontractors.

General roles and responsibilities for the implementation of this Plan are provided in Table 2. The roles and responsibilities for the implementation of this management plan will be revised according to the any changes in Voltalia’s organisational structure.

The EPC Contractor is not yet defined. Their specific responsibilities described in the table will be properly distributed once their organisational structure is known.

**Table 2: Roles and Responsibilities.**

Role	Responsibilities
<b>Voltalia SPV</b>	
<b>Project Director</b>	<ul style="list-style-type: none"> <li>■ Ensure the Voltalia’s HSES Policy and HSES Management System Requirements are in line with EBRD performance requirements, and IFC Performance standards, and ESAP requirements and are communicated and implemented effectively and consistently to the Project’s relevant stakeholders;</li> <li>■ Ensure the HR policy includes a code of conduct, provisions regarding forced labour and illegal employment, and must explicitly require that all construction staff and workers receive a written contract with the HR policy prior to starting work and in its own language;</li> <li>■ Allow sufficient time and adequate resources for the implementation of this Plans requirements;</li> <li>■ Foster HSES leadership culture within the Project; and</li> <li>■ Assign an ESAP owner conversant with EBRD Performance Requirements and Uzbek legislation.</li> </ul>
<b>Health &amp; Safety Site Supervisor</b>	<ul style="list-style-type: none"> <li>■ Supervise workers within their area of supervision, take corrective action when HSES issues are noted and report these issues to the Site Management Team;</li> <li>■ Participate in internal audits and investigation of incidents to determine root cause and corrective actions;</li> <li>■ Supervise close out H&amp;S incident reports and record, monitor and follow up close out of action items in the Action Tracking System.</li> <li>■ Liaise with Site Managers on relevant H&amp;S issues and organize H&amp;S meetings;</li> <li>■ Perform regular site and work front visits and inspections and monitor High Risk Activities;</li> </ul>

Role	Responsibilities
	<ul style="list-style-type: none"> <li>■ Develop, review, and approve risk assessments, RAMS and PTW’s. Ensure liaison with other relevant HSES Site Management Team members in this process to collect their feedback concerning their respective fields of actuation;</li> <li>■ Liaise with the Lenders on Project E&amp;S performance, to seek alignment between their expectations;</li> <li>■ Review and approve site access HSE documentation;</li> <li>■ Overseeing, managing, and allocating adequate resources for the implementation of the HSES Management System.</li> </ul>
<b>E&amp;S advisor</b>	<ul style="list-style-type: none"> <li>■ Oversee this Plan;</li> <li>■ Ensure that all the environmental authorizations and permits have been obtained in a timely manner;</li> <li>■ Monitor close out of environmental action items in the Action Tracking System;</li> <li>■ Review the Environmental management documents;</li> <li>■ Ensure all corrective/preventive actions related to environmental risks and incidents are implemented;</li> <li>■ Liaise with Site Managers on relevant Environmental issues and plan environmental performance monitoring meetings;</li> <li>■ Supervise and manage the work of the Environmental specialists;</li> <li>■ Review Environmental incident reports;</li> <li>■ Perform regular site and work front visits and inspections and monitor high environmental risk activities and the commencement of activities in new areas or areas with significant environmental sensitivities;</li> <li>■ Ensure implementation of the Project’s Management Plans in accordance with environmental permit requirements and ESIA requirements if different;</li> <li>■ Ensure the social components of the Project are compliant with this Plan, permit requirements, local legislation, and Lenders’ requirements;</li> <li>■ Ensure that stakeholder engagement during construction is in line with Lender’s requirements and national regulations;</li> <li>■ Supervise the work of the Community Liaison Officer and ensure the correct implementation of the stakeholder engagement plan and grievance mechanism;</li> <li>■ Ensure the implementation of the community health and safety management measures;</li> <li>■ In coordination with HR Coordinator, verify that all social measures from LMP are implemented on site;</li> </ul>

Role	Responsibilities
	<ul style="list-style-type: none"> <li>■ Report to the Lenders on (i) Implementation status of the ESAP and of the Register of commitments, with success/fail indicators (see ESAP action 1.4) and (ii) the Environmental and social performance of the project activities, and (iii) the management of non-compliances and corrective actions; and Final approval of this Plan and subcontractors' plans/procedures prior to their implementation.</li> </ul>
<b>Volitalia - Site Manager</b>	<ul style="list-style-type: none"> <li>■ Day to day supervision of the site;</li> <li>■ Supervision of Project execution timeline and its disclosure to the Site Management Team;</li> <li>■ Ensure compliance of requirements by Contractor at the different phases of the Project (pre-qualification reports, kick off meetings, periodic performance evaluations...);</li> <li>■ Supervise dissemination of the updated version of this Plan to all Site workers, including the EPC Contractor and Subcontractors;</li> <li>■ Supervision of this Plan's requirements implementation through regular site monitoring visits and EPC Contractor and Subcontractors documentation/reports review;</li> <li>■ Supervision of adoption and implementation of disciplinary actions upon failure to comply with requirements;</li> <li>■ Supervision that all workers have proper training to implement the requirements of this Plan;</li> <li>■ Participation and supervision in the worksite Risk Management process (risk assessment, RAMS, PTW, interface management, definition of control measures, and change management); and</li> <li>■ Ensure contractors and service providers compliance with EBRD 2019 PRs and IFC 2012 PSs by including them in the list of applicable E&amp;S requirements to be complied with. Require them, in a legally binding manner, to cascade the requirement down their subcontractors' chain.</li> </ul>
<b>HSE Coordinator</b>	<ul style="list-style-type: none"> <li>■ Implementation of the HSE Policies, Sustainability principles, procedures and best practices, transversely to Volitalia region;</li> <li>■ Keeping up-to-date with any changes in safety regulations and standards;</li> <li>■ Monitor and ensure that the Projects' E&amp;S objectives are achieved;</li> <li>■ Ensure the Projects' E&amp;S requirements and this Plan are communicated to, and implemented by the Projects' personnel, including the Site Management Team and Contractors;</li> <li>■ Prepare a register of all E&amp;S commitments from the permitted EIA, ESIA and ESAP actions.</li> </ul>

Role	Responsibilities
<b>EPC Contractor - Site Management Team</b>	
<b>Project Manager</b>	<ul style="list-style-type: none"> <li>■ Overall delivery of the Project and HSES performance, and assurance of compliance with budget, schedule, project policies, plans and procedures;</li> <li>■ Ensure that the necessary resources, authority, information, are provided to enable the execution of Project's HSES management activities and HSES procedures;</li> <li>■ Ensure that HSES management issues are included in periodic reports to be sent to Site Management Team, and also in reports prepared by Site Management Team to be sent to the Project Owner;</li> <li>■ Submit periodic reports to the Project Owner;</li> <li>■ Cooperate with Project Owner to obtain necessary permits and/or legal documents for the Project, if necessary. Hold a dedicated register of these permits and authorizations, indicating their scope and validity date if any.;</li> <li>■ Supervision of the proper implementation of this Plan by the Site Management Team and subcontractors' plans/procedures prior to their implementation through regular meetings and review of reports;</li> <li>■ Designating specific personnel on site or at the administrative level for the implementation of the E&amp;S Management System;</li> <li>■ Present monitoring data to Voltalia's Corporate Level and to the Lender;</li> <li>■ Liaise with the Project Owner, corporate level HSES team, for implementation of this Plan; and</li> <li>■ Follow-up on any grievances and non-Conformities, non-compliance or deviation from the requirements of this Plan.</li> </ul>
<b>Site Manager</b>	<ul style="list-style-type: none"> <li>■ Ensure that all the activities of the Project are carried out in accordance with this Plan and implement control measures and procedures that have been issued by Site HSES Management Team and the Project Owner as per the HSES Management Plan;</li> <li>■ Ensure that the international E&amp;S requirements applicable to the Project are included - as conditions - in contracts with Subcontractors and suppliers;</li> <li>■ Instruct and/or train workers on the requirements of this Plan;</li> <li>■ Ensure that Personal Protective Equipment is always available on site and is used whenever required;</li> <li>■ Deliver all the documents required for contractors' validation as per the requirements of this Plan and the Voltalia HSES Management Plan;</li> </ul>

Role	Responsibilities
	<ul style="list-style-type: none"> <li>■ Provide to Voltalia’s Health and Safety Site Supervisor, before the start of any hazardous work, the Environmental Risk Assessment and Method Statement – RAMS;</li> <li>■ Identify the need for specialized Subcontractors to carry out specific tasks on site in compliance with this Plan provisions;</li> <li>■ Coordinate with Voltalia’s HSE Manager, organize and participate in the auditing activities organization, maintain a program of audits and inspections at the Construction Site;</li> <li>■ Ensure that the raised non-conformities based of this Plan are addressed and resolved as quickly as possible;</li> <li>■ Ensure the planning, preparation and provision of the trainings in order to enable the full implementation of the Plan;</li> <li>■ Check the E&amp;S performance of all Subcontractors in relation to this Plan implementation;</li> <li>■ Verify the compliance with the contractual arrangements and with the Project standards and requirements;</li> <li>■ Provide the monitoring reports to Voltalia’s Site Management Team through the monthly report;</li> <li>■ Liaise with Voltalia’s HSE Manager for proposing and discussing – where necessary – potential changes and integrations of the monitoring activities of this Plan;</li> <li>■ Report and resolve the non-conformities raised;</li> <li>■ Notify and report to the Site Manager any Near Misses, hazardous conditions and incidents during construction activities;</li> <li>■ Perform the Contractor Management process (pre-qualification reports, kick off meetings, periodic performance evaluations...); and</li> <li>■ Ensure that all plant machinery and equipment are suitable for the use allocated to them and maintained in good working order, and record related maintenance activities.</li> </ul>
<p><b>HSES Manager</b></p>	<ul style="list-style-type: none"> <li>■ Organizing and delivering the implementation of all the Health, Safety and Environment obligations, also for subcontractors, as per the EPC contract, the ESAP, the Environmental Permit and the Uzbek Environmental, Social, Health and Safety legislation;</li> <li>■ Be conversant with EBRD PRs, IFC PSs and the Uzbek E&amp;S legislation;</li> <li>■ Oversee performance and ensure compliance of the Project with requirements of this Plan through regular meetings with the E&amp;S Site Management Team and review of E&amp;S reports;</li> </ul>

Role	Responsibilities
	<ul style="list-style-type: none"> <li>■ Ensure that sufficient and qualified resources are allocated on an ongoing basis to achieve effective implementation of actions, measures and monitoring activities;</li> <li>■ Ensure ESMS is in-line with the Project ESMS;</li> <li>■ Collecting, organizing and reviewing monitoring data and performance monitoring reports provided by the HSE specialist(s) and providing summary results of such reports to the Project Manager;</li> <li>■ Bringing Non-Conformities immediately to the attention of the Project Manager and ensuring that action/measures and monitoring activities are carried out timely and adequately according to this Plan requirements;</li> <li>■ Programming inspections and audit activities to monitor the correct implementation of this Plan and of HSE specialist(s) tasks;</li> <li>■ Monitor the compliance of the activities by Site Team, and subcontractors, with the time schedule and conducting regular inspections and audits of the waste and hazardous materials management activities to identify any non-conformances;</li> <li>■ Addressing Non-Conformities through the definition of Preventive/Corrective actions proposing to the Project Manager, if necessary, amendments and/or updates to this Plan and issuing Plan revisions;</li> <li>■ Search for continuous improvement through audits and monitoring of the HSE KPIs and internal processes;</li> <li>■ Advise and support the Project Manager and Site Manager on matters related to HSES;</li> <li>■ Develop HSES training and induction schedules and content and deliver the training and induction material such as site induction and toolbox talks; and</li> <li>■ Review and approve H&amp;S Management documents delivered by the Health &amp; Safety Site Supervisor.</li> </ul>
<p><b>Health &amp; Safety Site Supervisor</b></p>	<ul style="list-style-type: none"> <li>■ Communicate and instruct workers in proper work practices and update instructions as needed, make records of this instruction;</li> <li>■ Supervise workers within their area, take corrective action when HSES issues are noted and report these issues to the Site Management Team;</li> <li>■ Participate in internal audits and investigation of incidents to determine root cause and corrective actions;</li> <li>■ Develop and update the Project specific H&amp;S management documents;</li> <li>■ Communicate the Health and Safety (H&amp;S) requirements to Project personnel including Site Manager;</li> </ul>



Role	Responsibilities
	<ul style="list-style-type: none"> <li>■ Develop, review, investigate and close out H&amp;S incident reports and record, monitor and follow up close out of action items in the Action Tracking System.</li> <li>■ Contact point for reporting H&amp;S Near Misses, hazardous conditions, and incidents onsite and takes care of reporting to the Project Manager and the HSE Manager;</li> <li>■ Liaise with Site Managers on relevant H&amp;S issues and organize H&amp;S meetings;</li> <li>■ Deliver the H&amp;S component of training and induction such as site induction and toolbox talks;</li> <li>■ Perform regular site and work front visits and inspections and monitor High Risk Activities;</li> <li>■ Develop, review, and approve risk assessments, RAMS and PTW’s. Ensure liaison with other relevant HSES Site Management Team members in this process to collect their feedback concerning their respective fields of actuation; and</li> <li>■ Review and approve site access HSE documentation.</li> </ul>
<b>E&amp;S specialist</b>	<ul style="list-style-type: none"> <li>■ Obtain all E&amp;S authorizations and permits in a timely manner;</li> <li>■ Record and follow up close out of E&amp;S action items in the Action Tracking System;</li> <li>■ Develop and update E&amp;S management documents;</li> <li>■ Report and investigate all E&amp;S risks and incidents to the HSES Manager and Site Manager, and ensure all corrective/preventive actions related to environmental management are implemented;</li> <li>■ Liaise with Site Managers on relevant Environmental issues and plan environmental performance monitoring meetings;</li> <li>■ Develop Environmental incident reports;</li> <li>■ Communicate the E&amp;S requirements to Project personnel and perform necessary training;</li> <li>■ Ensure that stakeholder engagement during construction is in line with Lender’s requirements and national regulations;</li> <li>■ In coordination with the HSE site supervisor, ensure the implementation of the community health and safety management measures;</li> <li>■ Address external grievances through the Community Grievance Mechanism and ensure corrective action as per the mechanism;</li> <li>■ Provide regular feedback in the form of progress report(s) (as needed) to the local authorities, specifically as it relates to local employment and economic development investment.</li> </ul>

Role	Responsibilities
<p><b>HR Coordinator</b></p>	<ul style="list-style-type: none"> <li>■ Conduct due diligence to assess and manage labour-related risks associated with the project;</li> <li>■ Ensure compliance with the Project Labor Management Plan through audits, also for subcontractors;</li> <li>■ Coordinate with the E&amp;S Specialist and relevant governmental authorities to ensure legal compliance of subcontractors work conditions;</li> <li>■ Conduct and analyse the workforce surveys as a monitoring tool;</li> <li>■ Oversee that the recruitment processes are fair and transparent;</li> <li>■ Ensure that workers are provided with clear and accurate information about their terms of employment, including wages, working hours, and benefits;</li> <li>■ Oversee the implementation of policies to prevent discrimination in the workplace based on gender, ethnicity, nationality, or other factors, and to prevent and address child labour and forced labour;</li> <li>■ Ensure that workers are paid fair wages in accordance with applicable laws and industry standards;</li> <li>■ Monitor and enforce compliance with working hour limits to prevent excessive overtime;</li> <li>■ Address internal grievances through the Community Grievance Mechanism and ensure corrective action as per the mechanism;</li> <li>■ Ensure that workers have adequate rest periods and time off;</li> <li>■ Oversee the communication and implementation of grievance mechanisms;</li> <li>■ Build the capacity of Subcontractors to ensure effective labour management;</li> <li>■ Collaborate with relevant stakeholders to promote positive impacts on local communities;</li> <li>■ Put in place monthly random HR audits of its direct sub-contractors to verify the absence of illegal or non-compliant forms of employment. The results of audits shall be reported to Voltalia through quarterly E&amp;S reports during construction; and</li> <li>■ Ensure that all the staff employed on the construction site through his subcontractors chain is formally employed and declared, as required by the Uzbek legislation. Undertake during construction monthly random audits throughout his sub-contractors chain to verify compliance of the employment conditions with the provisions of the Uzbek labour legislation, EBRD PR2/IFC PS2 and the present ESAP. The results of these audits must be provided in the monthly E&amp;S reports to Voltalia.</li> </ul>
<p><b>All workers</b></p>	

Role	Responsibilities
<b>All construction site workers</b>	<ul style="list-style-type: none"> <li>■ Comply with all HSE requirements;</li> <li>■ Understand their responsibilities and implement the requirements of this Plan;</li> <li>■ Participate in site induction training and other relevant HSES related training if required;</li> <li>■ Report on any activities which demonstrate deviations from – or non-compliance with – this Plan requirements; and</li> <li>■ Report any incidents, unsafe situation, or issues to their supervisors and stop work on the grounds of danger to life or the environment and report this immediately to the Site Manager.</li> </ul>

For the complete list of HSES roles and responsibilities at a general project level, refer to the Voltalia HSES Plan.

#### 4.0 MITIGATION MEASURES/ACTIONS AND MONITORING ACTIVITIES

The following table (Table 3) details the environmental management and mitigation measures/actions identified for waste and hazardous materials management related activities during construction phase. For each measure/action identified, the table shows:

- **Item:** identification code of the mitigation measure/actions (ID);
- **Measure/Actions:** description of the mitigation measure/actions;
- **Timeline and frequency:** frequency/timing of the measure/action;
- **KPI (Key Performance Indicator):** quantitative compliance indicator or qualitative acceptance criteria to be used to confirm the actual effectiveness of the mitigation measure/actions. KPIs are established to measure the effectiveness of the waste and hazardous materials management taking into consideration the local conditions and objectives. KPIs provide valuable feedback on implemented measures, helps to motivate managers and workers to undertake appropriate actions and are valuable for external communication purposes.
- **Target:** final qualitative or quantitative objective to comply with;
- **Verification Method:** internal audit or specific monitoring activity to verify the measure application; and
- **Responsibility:** responsible party in the organization for implementing both the mitigation measures/actions and monitoring activities;

Mitigation measures are defined and are presented in the table according to the “mitigation hierarchy” requiring that priority and preference are given to avoidance measures, while minimization and rehabilitation/restoration measures should be used only if avoidance is not possible, and offsets for impacts, only as the last resort. Moreover, the mitigations included in the table have been designed to be adaptive in response to the results of monitoring actions described in the last part of the table.

The aim of monitoring is to verify whether the residual impacts are under control and mitigation measures/actions are effective.

In case monitoring will demonstrate non-conformities or unexpected residual impacts, the HSE manager will evaluate the situation and, if needed, propose changes and integrations to the mitigation and monitoring activities included in the present WHMMP. The proposed changes will be evaluated and approved by the Voltalia's Project Manager who will also ensure that action/measures and monitoring activities are carried out timely and adequately.

**Table 3: Mitigation measures/actions for construction phase.**

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
WHM-1	<p><b><u>Minimization: MP dissemination and awareness</u></b></p> <ul style="list-style-type: none"> <li>The WHMMP will be disseminated to all staff responsible for managing the construction site and to all Sub-Contractors working on the Project;</li> </ul>	Pre-construction and during all period of construction phase	<p>Records of WHMMP dissemination activities</p> <p>Percentage of WHMMP dissemination among relevant staff/workers</p>	<p>Records available for all dissemination activities carried out</p> <p>100% dissemination among workers and staff involved in waste and hazardous materials management</p>	EPC Contractor HSES Manager	<p><b><u>Monitoring activities:</u></b></p> <ul style="list-style-type: none"> <li>Conduct periodical internal audits, to ensure that the plan is known by all relevant workers at all relevant levels of the organization and implemented;</li> <li>Keep the records of the internal audits.</li> </ul>	Quarterly during the entire construction phase and upon the hiring of any worker that will participate in waste and hazardous materials management activities.	EPC Contractor E&S Specialist

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
WHM-2	<p><b><u>Minimization:</u></b> <b><u>Employees' training</u></b></p> <ul style="list-style-type: none"> <li>▪ All personnel will be trained in proper waste, hazardous waste and hazardous materials management, taking into consideration their level of responsibility and duties;</li> <li>▪ Personnel at an appropriate level of seniority will be nominated to be responsible for good site practices and arrangements regarding hazardous materials management;</li> <li>▪ All workers handling/managing waste and hazardous materials will be informed and trained on:</li> </ul>	Pre-construction and during all period of construction phase	<p>Percentage of workers trained in proper waste management practices</p> <p>Percentage of PPE delivery to workers</p>	100%	EPC Contractor HSES Manager	<p><b><u>Monitoring activities:</u></b></p> <ul style="list-style-type: none"> <li>▪ Verify that training courses and refreshment courses are completed;</li> <li>▪ Verify that workers have been trained on waste and hazardous materials management;</li> <li>▪ Verify that workers have been trained on the use of PPE, CPE and spills response, leaks/pollution prevention, control and response kits;</li> <li>▪ Keep a detailed training register on-site;</li> <li>▪ Keep the records of employees trained and make them available for review.</li> </ul>	Quarterly during the entire construction phase and upon the hiring of any worker that will participate in waste management activities.	EPC Contractor E&S Specialist

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	<ul style="list-style-type: none"> <li>- safe handling and effective and correct disposal of both hazardous and non-hazardous waste</li> <li>- the reading of the Materials Safety Data Sheets (MSDSs) for properly handling the hazardous materials</li> <li>- the use of Personal Protective Equipment (PPE) which shall be selected according to the specific job tasks but will include at least safety shoes, protective masks, protective clothing, goggles and gloves</li> <li>- the use of Collective Protective Equipment (CPE) such as emergency eye washing stations/devices and showers</li> <li>- accidental spills, leak prevention, response plans and measures</li> </ul>							

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	- best-practices for waste reduction, reuse and recycling							
<b>WASTE AND HAZARDOUS WASTE MANAGEMENT</b>								
<b>WHM-3</b>	<p><b><u>Minimization: Circular Economy for electrical and electronic equipment</u></b></p> <ul style="list-style-type: none"> <li>▪ The Project will be supplied with electrical and electronic equipment that meet the requirements of Directive 2011/65/EU, so that they can later be recycled in a way that meet the directive objectives;</li> <li>▪ The PV panels suppliers will meet the key objectives of WEEE Directive (Directive 2012/19/EU) in terms of the collection,</li> </ul>	During all period of construction phase	<p>Percentage of inventory with specifications meeting the requirements of Directive 2011/65/EU</p> <p>Number of broken panels disposed according to the WEEE directive</p>	<p>100% solar panels meeting the requirements of Directive 2011/65/EU</p> <p>100% broken panels disposed according to the WEEE directive</p>	EPC Contractor HSES Manager	<p><b><u>Monitoring activities:</u></b></p> <ul style="list-style-type: none"> <li>▪ Conduct an internal inventory control prior to purchase, to ensure all Project electric and electronic equipment meets the requirements of Directives 2011/65/EU and 2012/19/EU)</li> <li>▪ Track the amounts of WEEE generated in specific logs to be kept onsite;</li> <li>▪ Conduct one internal audit once inventory is installed to ensure, that all inventory is aligned with the declared inventory and Directives</li> </ul>	Monthly during the Construction phase	EPC Contractor E&S Specialist



Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	<p>treatment, recovery and environmentally sound disposal of WEEE:</p> <ul style="list-style-type: none"> <li>- Panels that are delivered broken during the construction period must be disposed of in a facility with the technical capacity to recycle their components, at the expense of the supplier. The supplier must provide proof of delivery of the broken panels to such facility; and</li> <li>- Panels that are broken or out of order during construction or operation must be disposed of according to the WEEE directive at the expense of the supplier.</li> </ul>					<p>2011/65/EU and 2012/19/EU;</p> <ul style="list-style-type: none"> <li>▪ Keep the records of the internal audits.</li> </ul>		

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
WHM-4	<p><b><u>Avoidance: Waste generation and reduction</u></b></p> <ul style="list-style-type: none"> <li>The solid waste generated during the construction phase to be managed according to Uzbek laws and regulations and the international standards and best practices;</li> <li>Where waste generation cannot be avoided, the Four (4) R's (waste Reduction, Recover, Recycle and Reuse) system of waste management shall be applied to all classes of waste that shall be generated during the entire Project;</li> <li>Where possible, materials which are easier to recycle</li> </ul>	During all period of construction phase	<p>Number of issues/observations made on the improper waste management.</p> <p>Number of potentially pollutant events caused by improper waste management (e.g., near misses)</p> <p>Percentage of waste reduced through the application of waste</p>	<p>Zero observations</p> <p>Zero events</p> <p>1%+</p>	EPC Contractor HSES Manager	<p><b><u>Monitoring activities:</u></b></p> <ul style="list-style-type: none"> <li>Conduct quarterly internal audits, to ensure that the waste reduction, recycling and reuse is observed.</li> <li>Track the amounts of waste generated on site and register the numbers on the specific logs to be kept onsite.</li> <li>Conduct quarterly internal audits to ensure that mitigation measures are being identified, implemented, and monitored.</li> <li>Keep the records of the internal audits.</li> </ul>	Quarterly during the entire construction phase	EPC Contractor E&S Specialist

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	and reuse will be prioritized; <ul style="list-style-type: none"> <li>Waste which cannot be reused or recycled, will be transported to the closest appropriated landfill.</li> </ul>		reduction strategies					
<b>WHM-5</b>	<p><b><u>Minimization: Waste management</u></b></p> <ul style="list-style-type: none"> <li>The segregated waste will be separated in categories, and classified by degree of danger as considered in Uzbek legislation (Resolution No. 14 of the Cabinet of Ministers, dated 21/01/2014). Any kind of waste mixing will be forbidden;</li> <li>The domestic solid waste generated by the personnel will be collected inside dedicated</li> </ul>	During all period of construction phase	Number of issues highlighted/ observation made on the improper waste management  Number of potentially pollutant events caused by improper waste management (e.g., near misses)	0 observations and events.	EPC Contractor HSES Manager	<p><b><u>Monitoring actions:</u></b></p> <ul style="list-style-type: none"> <li>Conduct monthly internal audits, consisting of visual inspections, to ensure that the waste temporary storage/accumulation areas are properly managed (e.g., segregation, labeling, secondary containment systems installation);</li> <li>Keep the records of the internal audits;</li> <li>Complete regular cleaning at the waste temporary</li> </ul>	Monthly during the entire construction phase	EPC Contractor E&S Specialist

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	<p>bins/containers located at various locations of the construction site (e.g., rest areas, construction areas, accommodation camp); Bins/containers will be labelled.</p> <ul style="list-style-type: none"> <li>▪ Properly equipped and marked areas for the collection and temporary storage of waste will be installed onsite at the beginning of the Project construction activities;</li> <li>▪ The waste management/storage areas will be roofed and designed in a way so that rainwater is not in contact with the waste;</li> <li>▪ The waste storage areas will be concrete-paved or</li> </ul>					<p>accumulation areas;</p> <ul style="list-style-type: none"> <li>▪ Conduct quarterly internal audits to ensure that mitigation measures are being identified, implemented and monitored.</li> </ul>		

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	waterproofed or equipped with containment trays to prevent spills and leakages and avoid the exposure to weathering; <ul style="list-style-type: none"> <li>▪ All types of waste generated shall be segregated by separating them into different waste containers which shall be labeled for easy identification and disposal;</li> <li>▪ The waste will be collected in appropriate containers to prevent corrosion and deterioration, spills and dispersion during handling and storage;</li> <li>▪ Hazardous wastes – such as the waste deriving from the machinery and equipment</li> </ul>							

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	<p>maintenance (e.g., filters, oily rags and metal parts containing hydrocarbons, oils and lubricants), medical waste, residues of paints, cement additives and other hazardous materials, among others – must be stored in an area for such purpose and duly marked, avoid mixing incompatible wastes. This area should be located away from sources of ignition;</p> <ul style="list-style-type: none"> <li>▪ In case medical waste is generated on-site, it will be managed as per SanPin No. 0317-15 (separated by classes and treated/disposed in accordance with the class it has been</li> </ul>							

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	<p>assigned. Expired drugs and radioactive medical waste will be handled by specialized and licensed companies).</p> <ul style="list-style-type: none"> <li>No intentional or accidental waste burning will occur on site, and immediate actions will be taken in case a waste arson will start.</li> </ul>							
<b>WHM-6</b>	<p><b><u>Minimization: Waste transportation and disposal</u></b></p> <ul style="list-style-type: none"> <li>Transportation of waste out of the Project site and its elimination shall be carried out by a licensed company in appropriate facilities for each waste stream in compliance with</li> </ul>	During all period of construction phase	<p>Records of visits to the waste disposal facilities</p> <p>Records of the waste delivery trips showing details (e.g., waste amounts, shipping</p>	<p>100% of the Project waste that will be sent to facilities is transported by licensed operators</p> <p>100% of the Project waste that will be recycled is</p>	EPC Contractor HSES Manager	<p><b><u>Monitoring activities:</u></b></p> <ul style="list-style-type: none"> <li>Complete review of the waste managers authorizations and waste documents (e.g., permits, drivers licenses, landfills authorizations, etc.);</li> <li>Complete one visit and audits of each</li> </ul>	During the entire construction phase	EPC Contractor E&S Specialist

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	national and local regulations; <ul style="list-style-type: none"> <li>▪ All disposal/recycling companies will have sufficient capacity and legality to manage the waste generated by the Project;</li> <li>▪ Facilities for the management and treatment of waste will be screened and audited to identify those that respond to international standards;</li> <li>▪ The waste will not be discharged to improper dumpsites/landfills (i.e., landfills not in accordance with legal requirements);</li> <li>▪ Waste consignment notes shall be used to track the disposal of all generated waste;</li> </ul>		and delivery dates and waste types)	transported and managed by licensed companies		waste management facility; <ul style="list-style-type: none"> <li>▪ Verify existence of all required logs/registers.</li> </ul>		



Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	<ul style="list-style-type: none"> <li>▪ The waste will travel with proper transportation documents and forms indicating details such as the type, the quantity, and the hazardousness of the waste;</li> <li>▪ The waste disposal selected facilities will be visited/audited to ensure that proper disposal practices are implemented and that they operate in compliance with the Project standards, the legal requirements, the international best practices and the local environmental standards and regulations.</li> </ul>							
HAZARDOUS MATERIALS MANAGEMENT								

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
WHM-7	<p><b><u>Avoidance: use of highly dangerous and environmental pollutant materials and products</u></b></p> <ul style="list-style-type: none"> <li>▪ Sourcing, purchasing and using highly pollutive and hazardous materials (subject to both national and international bans or phase-outs due to their harm to living organism and/or environment)<sup>2</sup> will be avoided;</li> <li>▪ The use of highly persistent and toxic pesticides shall be avoided.</li> </ul>	During all period of construction phase	Observations and events of use of highly dangerous and environmental pollutant materials and products subjected to both national and international bans or phase-outs	None.	EPC Contractor HSES Manager	<p><b><u>Monitoring activities:</u></b></p> <p>Conduct quarterly internal audits, to ensure that none of such substances are used.</p>	construction phase	EPC Contractor E&S Specialist
WHM-8	<p><b><u>Minimization: Hazardous materials management</u></b></p>	During all period of	Number of issues highlighted/	None	EPC Contractor HSES Manager	<p><b><u>Monitoring activities:</u></b></p>	Monthly during the entire	EPC Contractor E&S Specialist

<sup>2</sup> e.g., Polychlorobiphenyl PCBs, Ozone Depleting Substances ODSs, Persistent organic Pollutants POPs, Coal tar and Very toxic (T+) substances, unless it is proved that it cannot be substituted with less hazardous substances and materials.

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	<ul style="list-style-type: none"> <li>▪ A clear procedure/plan for the prevention and management of hazardous substances spills following the GIIP will be included in the Emergency, Preparedness &amp; Response Plan;</li> <li>▪ No chemicals or hazardous materials storages will be placed outside of the Project area boundaries;</li> <li>▪ Dedicated storage place properly equipped will be provided for storing hazardous products and materials;</li> <li>▪ Every hazardous material will be provided with MSDSs updated and clear/well readable showing</li> </ul>	construction phase	<p>observations made on the improper hazardous materials management</p> <p>Number of potentially pollutant events caused by improper hazardous materials management (e.g., near misses)</p>			<ul style="list-style-type: none"> <li>▪ Conduct periodical internal audits, consisting of visual inspections, to ensure that the storages are properly managed (e.g., segregation, labeling, MSDSs, secondary containment systems installation);</li> <li>▪ Keep the records of the internal audits;</li> <li>▪ Regularly inspect the storage area drains;</li> <li>▪ Operate maintenance and control at the storages (e.g., update MSDSs, check the secondary containment systems);</li> <li>▪ Complete regular cleaning of the hazardous</li> </ul>	construction phase	

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	<p>the product name, the chemical formula/the components, the hazard pictograms, the warnings and the danger indications and the safety advice on the proper personal or collective protection equipment to be used for the handling;</p> <ul style="list-style-type: none"> <li>▪ Hazardous materials will be stored away from the drainage ditches, offices, main roads, sources of ignition and will be equipped with spills prevention kits and emergency eyes washing stations;</li> <li>▪ All hazardous materials will be placed on waterproofing flooring (or on</li> </ul>					<p>materials' storage area;</p> <ul style="list-style-type: none"> <li>▪ Conduct periodical internal audits to ensure that mitigation measures are being identified, implemented and monitored.</li> </ul>		

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	secondary containment systems adequate for containing any potential spills; <ul style="list-style-type: none"> <li>▪ The pathways to the storages will be free of obstacles;</li> <li>▪ The access to the hazardous material storages will be restricted to authorized and qualified personnel;</li> <li>▪ The hazardous materials storage areas will be provided with fire protection, prevention and control devices;</li> <li>▪ All liquid chemicals containers will be properly closed and adequately stable to avoid liquid drops, spills and overflow.</li> </ul>							
<b>WHM-9</b>	<b><u>Minimization: Hazardous materials purchasing,</u></b>	During all period of	Records of hazardous materials	All records for every material	EPC Contractor HSES Manager	<b><u>Monitoring activities:</u></b>	Quarterly during the entire	EPC Contractor E&S Specialist

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	<p><b><u>transportation and delivery</u></b></p> <ul style="list-style-type: none"> <li>▪ The hazardous material's types and quantities will be checked and registered on dedicated logs and forms and monitored;</li> <li>▪ The off-loading or staging of the hazardous materials delivered will be supervised;</li> <li>▪ The circulation of trucks showing oils and fuel losses or dripping, or clear signs of engines breakages will be forbidden;</li> <li>▪ Any intentional and uncontrolled discharge of liquid, semi-solid or muddy material will be forbidden;</li> </ul>	construction phase	<p>generation, transportation and delivery operations</p> <p>Observations of missing hazardous material labelling or documentation.</p>	<p>waste generated and transported to be available</p> <p>Zero observations</p>		<ul style="list-style-type: none"> <li>▪ Keep and register, on a dedicated logbook, the hazardous materials purchased (type and quantities) and provide the logbook with the materials updated MSDSs;</li> <li>▪ Complete periodic review of the MSDSs for ensuring that they are updated;</li> <li>▪ Provide the storages with summaries of MSDSs easily readable;</li> <li>▪ Share copies of the hazardous materials logbook with the Hospital staff and the Emergency Response Team identified within the Emergency</li> </ul>	construction phase	

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	<ul style="list-style-type: none"> <li>The hazardous materials will be secured during their transportation for avoiding tripping, flipping and overflows;</li> <li>Exclusively trained, authorized, and qualified operators will be allowed for transporting the hazardous materials. The transportation means will be provided with emergency spills prevention kits.</li> </ul>					Preparedness and Response Plan; <ul style="list-style-type: none"> <li>Periodical check of the hazardous materials transporters' trainings, qualifications, and authorizations.</li> </ul>		
<b>WHM-10</b>	<p><b><u>Avoidance: Potential environmental pollution due to hazardous materials spills and leaks</u></b></p> <ul style="list-style-type: none"> <li>The usage of low Sulphur fuels will be preferred;</li> <li>Hazardous products and chemicals will</li> </ul>	During all period of construction phase	Number of contamination events	No contamination events from spills or leaks of hazardous materials	EPC Contractor HSES Manager	<p><b><u>Monitoring activities:</u></b></p> <ul style="list-style-type: none"> <li>Conduct periodical internal audits, consisting of visual inspections, to ensure that the storages are properly managed (e.g., the bins and trays are sealed,</li> </ul>	Monthly during the entire construction phase	EPC Contractor E&S Specialist

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	be stored in well-ventilated and locked up locations; <ul style="list-style-type: none"> <li>▪ Bulks, cans, bins and trays of hazardous products and chemicals will be closed/sealed/secured during storage and transportation;</li> <li>▪ Maintenance and repair of machinery and equipment will be performed over a leakage-proof surface and with proper collection techniques;</li> <li>▪ All hoses and washers will be properly positioned before fuels and other liquids are received and distributed;</li> <li>▪ Concrete production will be kept under control. Spill outs and leakages during</li> </ul>					and the locations are well-ventilated); <ul style="list-style-type: none"> <li>▪ Keep the records of the internal audits;</li> <li>▪ Operate maintenance and control on the devices, machinery and equipment;</li> <li>▪ Supervise the concrete handling and production activities.</li> </ul>		



Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	transportation and usage of concrete will be controlled;							
<b>WHM-11</b>	<p><b><u>Minimization: Equipment and machinery maintenance and control</u></b></p> <ul style="list-style-type: none"> <li>▪ Leaks and spills of oils, fuels, liquid wastes and other hazardous materials from the equipment and machinery will be avoided;</li> <li>▪ The work areas where cleaning, maintenance, control of equipment and machinery and refuelling are completed will be provided with leak-proof floor and proper collection techniques;</li> <li>▪ Portable containers (of appropriate volume) will be</li> </ul>	During all period of construction phase	<p>Percentage Equipment and machinery used for construction are in good/optimal operative conditions</p> <p>Hazardous products and fuels Leakage cases / events.</p>	<p>100% of equipment and machinery used for construction are in good/optimal operative conditions</p> <p>Zero events</p>	EPC Contractor HSES Manager	<p><b><u>Monitoring activities:</u></b></p> <ul style="list-style-type: none"> <li>▪ Conduct periodical internal audits, consisting of visual inspections, to ensure that the equipment and machinery is functioning and in proper conditions;</li> <li>▪ Conduct periodical technical maintenance and control operations;</li> <li>▪ Keep the records of the internal audits;</li> <li>▪ Keep record of the maintenance and control operations, with details of the parts substitution/replace ment/change.</li> </ul>	Daily during the entire construction phase	EPC Contractor E&S Specialist

Mitigation measure						Monitoring activities		
Item	Mitigation Measures/Actions	Timeline and frequency	KPI	Target	Responsibility	Verification method	Frequency	Responsibility
	placed under engine drain points to prevent any spilling of oils during oil change; <ul style="list-style-type: none"> <li>▪ The oil waste will be properly and carefully transferred to sealed drums;</li> <li>▪ Tankers' delivery hoses will be checked for checking the existence of fuel residues;</li> <li>▪ The fueling operations will be supervised.</li> </ul>							

## 5.0 RISK MANAGEMENT

To safeguard the well-being of employees, protection of the environment, and overall business sustainability, the Site Management Team, or Contractor shall be required to adopt a risk management approach. This approach involves identifying potential hazards, conducting risk assessments for work activities, implementing suitable control measures, monitoring, and overseeing the risks, and effectively communicating these risks to all stakeholders involved.

### 5.1.1 Risk Assessment

Both the Site Management Team and Contractors are responsible for conducting risk assessments for all their respective activities that have the potential to cause harm. These risk assessments must be performed at the following stages, as a minimum:

- i) Before the commencement of activities;
- ii) Prior to introducing new equipment, procedures, or processes; and
- iii) When there are significant modifications made to existing equipment, procedures, or processes.

The assessments will be continually updated and accomplished by completing the following two documents:

- Risk Assessment Map (refer to **Appendix G – Risk Assessment Matrix– H&S** of the Voltalia’s HSES Management Plan);
- Direct and Indirect Environmental Aspects Matrix (refer to **Appendix H – Risk Assessment Matrix – Environmental Aspects** of the Voltalia’s HSES Management Plan).

The preparation of the Risk Assessment documents will follow the methodology specified in the Voltalia Occupational Risk Evaluation and Environmental Aspects Evaluation Procedures.

### 5.1.2 Risk Assessment and Method Statement (RAMS)

In addition, for any Project related works involving high-risk activities, a Risk Assessment and Method Statement (RAMS) shall be prepared by following the template provided in Appendix I – Risk\_Assessment\_&\_Method\_Statement\_Template of the Voltalia’s HSES Management Plan.

The Site Management Team is responsible for preparing the RAMS for the work they undertake, as well as reviewing and approving RAMS submitted by Contractors for their tasks.

Both Risk Assessment and RAMS shall be considered living documents and will be updated when required due to changes to the work.

### 5.1.3 High Risk Work Permits

All the identified High-Risk activities of the Project will be subject to the rules defined in Section 5.4.3 of the Voltalia’s HSES Management Plan. These high-risk activities shall be subject to a specific Permit-To-Work (PTW) procedure, identifying the interveners, their competences and authorizations. The list of considered activities that are deemed High-Risk are found in Section 7.1 of the Voltalia’s HSES Management Plan. This list is not exhaustive, and any other high-risk activity identified should be subject to a PTW. The requestor shall apply for a PTW of any High-Risk Activities undertaken within their area of supervision (refer to Appendix J – Permit to Work Request of the Voltalia’s HSES Management Plan).

### 5.1.4 Interface Management and Management of Change

Considering that the simultaneous execution of two or more tasks in a shared space may have varying impacts on each other and potentially lead to unsafe conditions, an interface management process shall be implemented to prevent the accumulation of hazards within the same area or system. The interface management process will

be of responsibility of the Site Management Team. For the implementation of this process, Section 5.4.4 of the Voltalia's HSES Management Plan shall be referred to.

In addition, Voltalia will have a management of change process in place during the construction phase to ensure that all permanent and temporary changes to Project design, systems, processes, procedures, equipment, organization, personnel, products, materials, and work methods are correctly understood and implemented, without introducing any significant hazard or risk to people and the environment. The management of change process will be responsibility of the Site Management Team / HSES Manager. For the implementation of this procedure, Section 5.4.5 of the Voltalia's HSES Management Plan shall be referred to.

## 6.0 INCIDENT MANAGEMENT

All good catches and incidents that cause or have the potential to cause personal injury or damage to property or the environment shall be reported and investigated to prevent re-occurrence (refer to the Voltalia Incident Management Procedure). This procedure provides information on how to achieve the minimum standards to ensure HSE Incidents are identified, reported, and investigated in a consistent and effective manner. Its purpose is to ensure all Incidents, including near misses and HSE Good Catches, are reported, investigated, and analyzed to identify where management controls failed and recommendations to identify new or restore controls are implemented. Early sharing of lessons learned to facilitate prompt corrective and preventive actions where similar situations are found shall be applied to prevent a recurrence both locally and at other locations.

The main protocols to be followed by the Site Management Team and Contractors regarding incident management are found in Section 5.6 of the Voltalia's HSES Management Plan.

## 7.0 AUDIT AND REVIEW

The correct implementation of this Plan is verified through internal inspections. The schedule, the frequency, the scope and objectives of the inspections as well as the responsible internal auditors shall be selected on the basis of Section 10 of the Voltalia's HSES Management Plan (Performance Measurement and Monitoring).

Internal auditing shall address:

- the correct implementation of all applicable standards (Uzbek regulatory framework, IFC PSs, EBRD PRs and WBG General EHS Guidelines);
- the correct implementation of this Management Plan;
- the correct implementation of Contractors' Plan to reflect the requirements of this Plan;
- the development and timely implementation of an auditing and review system by Contractors; and
- the implementation of the points indicated in the table in section 4.0 (mitigation measures/actions and monitoring activities) of this Plan;

Evidence and results of the inspection activities shall be formally recorded in the Voltalia dedicated inspection tool. Any Non-Conformity and Preventive/Corrective actions identified during the inspections must be tracked to ensure suitable close out. Voltalia's HSES Manager will review results of inspections and the progress of the implementation of any Preventive/Corrective actions.

A sample of inspection checklist that can be used by the Site Management Team is accessible on the Voltalia Intranet through the HSE HUB and also attached for reference in **Appendix M – HSE Inspection Checklist Form** of the Voltalia's HSES Management Plan, likewise an online inspection tool is available for the performance of HSE Inspections by non-HSE functions Voltalia personnel.

Additional details related to the construction phase of the Project are expected in due course; this Plan shall therefore be subject to a systematic review process during the construction phase in order to encompass and consider any information relevant to waste and hazardous materials' management matters. This Plan will be reviewed either once a year or based upon need on the basis of the occurrence of significant changes in the waste and hazardous materials' management related activities (whichever happens sooner). Revision of this Management Plan will be the responsibility of the Project Manager, in collaboration with the HSE Manager, who is in charge of this Plan's implementation.

## 8.0 TRAINING REQUIREMENTS

This Section provides the training requirements and guidance for Contractors and Sub-Contractors to ensure that their training activities are carried out in compliance with this Plan.

### 8.1 HSE Induction

The EPC Contractor and Voltalia's Site Management Team will be responsible for providing to all workers involved in the construction activities, including staff and workforce of Sub-Contractors, a Site Induction Training (presentation or video, to be defined by the Site Management Team) before the commencement of any activity at the working site, as well as a copy of the Voltalia HSES Management Plan. Attendance at HSE Induction should be mandatory and include all staff and workforce. Any new employee, contractor, visitor or other individual visiting the site during the Project shall receive the same induction information. Visitors will always be escorted in the Project site. The individual should be taken through the induction by an experienced person. The HSE induction will be aimed at providing workers with basic information about Project-related HSE risks and impacts and the prevention, mitigation measures in place in order to ensure personal protection and prevention of any injury.

HSE Induction shall be organized in the languages understood by all personnel (if necessary, the Contractor shall provide a translator).

No person will be permitted to work on site until specific site induction has been completed and records of such training maintained.

The HSE induction will include (not limited to) the following key messages:

- HSES Policy and Golden Rules of Voltalia Group;
- The roles and responsibilities for HSES in relation to the implementation of this Plan;
- Standard site rules;
- Arrangements for first aid, welfare facilities, fire and evacuation, accident, and incident (near-misses and good-catches) reporting;
- Gate security the need for HSE cards to access;
- Access to toilets, water, clinic, ambulance and emergency meeting point;
- Dedicated grievance mechanisms for workers or community, accessible by phone, mail or walk in;
- Key safety signs: live electricity, no access, first aid, speed reduction, maximum speed, etc;
- Use, storage, and maintenance of the PPEs to be used: helmet, mask, vest, safety shoes, etc;
- Emergency procedures and contacts;
- Project specific HSES requirements / mitigation / control measures;

- Projects abide by international HSE best practice; violating staff shall be subject to disciplinary actions according to the Voltalia disciplinary action matrix;
- Mitigation measures for the risks and impacts including those applicable to Waste and Hazardous Materials management, such as:
  - Waste and hazardous materials must be properly managed;
  - Waste generation must be reduced, and materials recycle and reuse needs to be increased;
  - Unauthorized and untrained workers cannot access or handle hazardous materials;
  - Polluting the environment is not acceptable.

At the end of the HSE induction, an easy and visual means of identification on site must be put in place to verify that personnel on site are authorized to work and have followed the induction (stickers, badges or cards). This visual identification shall be returned at the end of the work/visit.

Should there be any substantial changes in the Project activities related to Waste and Hazardous Materials management, then the workers shall receive additional training on the basis of the new information.

## 8.2 Specific Training

HSE training shall be provided to ensure that all workers involved in the construction activities, including staff and workforce, are prepared for the specific hazards of individual work assignments. All Contractors will be responsible for carrying out specific training for their operatives covering all items pertinent to their work (in this case, waste management and hazardous materials management.), and providing evidence of the training (refer to section 6.1 – Access Requirements of the Voltalia's HSES plan).

The responsible for waste and hazardous materials inspections and monitoring campaigns shall receive adequate training to their specific activities in order to ensure they work in compliance with the ESHS requirements of the Project.

Specific training related to waste generation and management and to hazardous materials handling and use shall be provided to all staff and workforce that will manage waste and hazardous materials. The key elements of the training shall include:

- Knowledge of waste types;
- Principles of waste segregation;
- Waste transportation requirements;
- Techniques for Hazardous Materials handling;
- Known hazards in working operations and how they are controlled;
- Precautions to prevent exposure to risks;
- Hygiene requirements;
- Good housekeeping and Hazardous Material storage techniques to ensure that storage areas are well managed, accessible and free from hazards;
- Correct use and application of PPE and clothing;
- Signage;
- Accidental spills;

- Firefighting;
- Emergency Evacuation; and
- Medical Emergencies.

Should the HSE performance monitoring results (such as recurrent incidents or near misses related to waste and hazardous materials management) demonstrate that a reinforcement is required, further site awareness on Waste and Hazardous Materials Management shall be provided to all workers (incl. signage, markings, labelling, etc.) and customized on the basis of the types of incidents /near misses or KPIs recorded.

### **8.3 Risk Assessment and Method Statement (RAMS) Training**

A training in RAMS will be provided to all workers involved in the works within the RAMS scope, prior to the start of these works. The content of the training will be specified in the specific RAMS.

### **8.4 Toolbox Talks**

Toolbox talks will be carried out at regular intervals prior the initiation of the days works or upon need throughout the day. These shall be brief meetings or training sessions facilitated by Voltalia or Contractors aim to address specific and pertinent HSES topics with workers. The objective shall be to enhance awareness, disseminate crucial information, and strengthen adherence to HSES work practices. The Site Management Team may mandate these sessions for Contractors, focusing on specific topics in response to identified needs or observed shortcomings on the site. The frequency of these meetings shall be commensurate to the risks and impacts associated with the ongoing phase of the project at the time.

## **9.0 REPORTING**

This section provides instructions and requirements for the reporting on the implementation of mitigation measures/actions, monitoring activities and internal auditing.

### **9.1 Reporting of the monitoring activities**

Evidence and results of the monitoring activities (detailed in Table 3) must be described in detail in appropriate monitoring reports to be prepared as frequent as indicated in the table. These monitoring reports must include the following minimum information/data (where relevant):

- Scope and Purpose of the monitoring activity;
- Reference to the approved WHMMP;
- Description of the monitoring effort and applied methodology, including start and end dates of the monitoring period covered by the report, location of monitoring activities (geographical coordinates in WGS84 system and elevation) and map of surveyed areas;
- Timing of data collection (start date and end date);
- Applicable KPI according to Table 3.
- Conclusions on compliance vs. KPI, and eventual observations including the reasons for the deviations, if applicable;
- Name and personal data of staff responsible for implementing the specific monitoring activities (including reference to this Management Plan and reference to the appointment of third parties eventually contracted to perform part of the activity, e.g. external laboratories and consultants);

- 
- Implications, modifications, adjustments and/or recommendations that could be adopted in response to observed results from the monitoring activities and any other recommendations for improvements to the Waste and Hazardous Materials Management Plan;
  - Suggestions for future projects based on lessons learned;
  - Quality control procedures applied to ensure consistency and reliability of the analyses or results;
  - Analytical certificates from the laboratory/ies (where applicable);
  - Summary of any incidents or accidents, analysis of the root causes and lessons learned, and documentation of any corrective actions taken.

## 9.2 Reporting of the auditing activities

The implementation of this Management Plan must be audited according to the requirements included in Voltalia's E&S Management System and section 6.0 "Audit and Review" of this Management Plan.

Evidence of the implementation of the mitigation measures/actions, of the timely deployment of monitoring activities (detailed in section 4.0) and of related results are described in the audit reports. These audit reports must include the following minimum information/data:

- List of the items audited (detailed in section 4.0);
- Information whether the items have been implemented within the indicated timeline and frequency;
- Achievement (or not) of the KPIs;
- Description of non-compliances eventually identified; and

Description of correction measures to be applied.



# Signature Page

**Table 4: Details of the Undersigned**

Name (position)	Entity	Date	Signature



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