

VI – Annexes

Part 3 – Annex 3

Annex 3: Specifications for Environmental, Social, Health and Safety Management (ESHS) of the Worksite

1. Essential ESHS issues of worksite management

The ESHS topics identified during the Environmental and Social Impact Assessment study of the project, which present a major risk for the worksites management are:

a) ESHS resources and facilities and ESHS monitoring organization	YES
b) Project Areas management (base camps, quarries, borrow pits, storage areas)	YES
c) Health & Safety on worksites	YES
d) Local recruitment and ESHS trainings of local staff (capacity building), ESHS trainings of Subcontractors and local partners (transfer of knowledge)	NO
e) Relations with stakeholders, information and consultation of local communities and authorities	YES
f) Traffic management	NO
g) Hazardous products	YES
h) Wastewater (effluents)	YES
i) Protection of water resources	NO
j) Atmospheric emissions, noise and vibrations	YES
k) Waste management	YES
l) Biodiversity: protection of fauna and flora	NO
m) Site rehabilitation and revegetation	YES
n) Erosion and sedimentation	NO
o) Control of infectious and communicable diseases (HIV/AIDS, malaria, etc.)	YES

2. ESHS requirements not applicable under this Contract

The ESHS norms, standards and discharge limit values recommended by the specialized international organizations affiliated to the United Nations shall apply to the Contract:

Yes ☒ / No ☐

The following Clauses of the ESHS Specifications shall not apply to this Contract and shall not be priced by the Bidder under the specific ESHS Cost Schedule:

Number of the Non-Applicable Clause	Description
<u>10 – Protection of adjacent areas</u>	The project will not take place in public area and/or near regions where wetlands, water resources, and recreational areas are located. The project will be constructed in a detected wastewater treatment plant campus. Therefore, The Contractor is exempt from Clause 10.
<u>12.5 /12.6 /12.7 – Effluents</u>	Sub Clauses 12.1, 12.2, 12.3, 12.4, 12.8 and 12.9 remain applicable. Since the Contract does not cover issues such as wastewater treatment or natural discharge points, no direct wastewater treatment activities will be carried out. Here, only the disposal of wastewater indirectly generated from the camp area and as a by-product of the process will be undertaken. Therefore, The Contractor is exempt from Sub Clause 12.5, 12.6 ve 12.7.
<u>15.15.1 – Management of Medical Waste</u>	Except for Sub-Clause 15.15.1, all other Sub-Clauses under Clause 15 remain applicable. There is no medical waste generation is anticipated, Clause 15.15.1 has been excluded from the scope.
<u>17 – Biodiversity</u>	The Contractor is exempt from Clause 17.
<u>18.4 / 18.4.1 / 18.4.2 / 18.4.3 – Sediment Control</u>	Except for Clause 18.4 and its Sub-Clauses 18.4.1, 18.4.2, and 18.4.3, all other Sub-Clauses under Clause 18 remain applicable. As the Project will be implemented within the premises of an existing wastewater treatment plant, there will be no activities requiring sediment control on sloped areas or dredging of marine sediments. Therefore, Clause 18.4 on Sediment Control, along with its Sub-Clauses 18.4.1, 18.4.2, and 18.4.3, has been excluded from the scope.
<u>30.1 / 30.1.1 / 30.1.3 - b, c, d / 30.1.4 / 30.1.5 – Health care centre & medical personnel</u>	Since the project area will be close to the City Centre, only Clauses 30.1.2 and 30.1.3 (a, e, f) are considered applicable. All other sub-clauses under Clause 30 have been excluded from the scope, as they are not required under the existing site conditions.

<u>32 – Emergency medical evacuations</u>	As the project area is close to the City Centre, safe access to the required healthcare facilities for emergency medical evacuations can be ensured by road. Therefore, the Contractor is exempt from Clause 32.
<u>39 – Local recruitment</u>	Since the Project requires specialized technical personnel, the local recruitment obligations cannot be implemented under these conditions.
<u>40 – Transport & accommodation</u>	
<u>42.5 to 42.6 and 47.7 – Project Areas that will be subject to blasting</u>	Sub Clauses 42.1, 42.2, 42.3 and 42.4 remain applicable. Blasting activities are not envisaged under the scope of the Project. Accordingly, the Contractor is exempt from Sub-Clauses 42.5, 42.6, and 42.7.
<u>43 – Land acquisition and land take</u>	As the Project will be implemented within the premises of an existing wastewater treatment plant, no land acquisition will be required. Therefore, the Contractor is exempt from Clause 43.
<u>44 – Traffic</u>	As the Project will be implemented within the premises of an existing wastewater treatment plant, the use of public roads and related traffic arrangements will not be required. Therefore, the Contractor is exempt from Clause 44.

Throughout the present ESHS Specifications (hereinafter called "**the ESHS Specifications**"), a reference to Conditions of Contract, abbreviated by CC, means a reference to both the General Conditions of Contract and the Particular Conditions of Contract. Readers should apply due care, when being referred to a specific Clause or Sub-Clause, to:

- Read first the Clause or Sub-Clause text from the General Conditions of Contract;
- Then check whether this text has been amended by the Particular Conditions of Contract, and if so, to which extent.

As per CC Sub-Clause 1.5 – Priority of Documents, when interpreting the Contract, the terms of the Particular Conditions of Contract prevail over those found in the General Conditions of Contract.

Any term in these ESHS Specifications which is identical to a term in the Conditions of Contract shall have the same meaning as the one defined in the Conditions of Contract.

Any term in capital letters in these ESHS Specifications is defined in CC Sub-Clause 1.1 – Definitions.

ESHS Specifications

Table of Contents

A. Environmental, Social, Health and Safety Management System.....	10
1 Responsibilities and Liabilities	10
2 ESHS Planning Document	11
3 Management of non-conformities	12
4 Resources allocated to environmental management.....	14
5 Inspections	15
6 Reporting.....	15
7 Rules of Procedure	17
8 ESHS Training	18
9 Standards.....	19
B. Protection of the Environment.....	20
10 Protection of adjacent areas.....	20
11 Selection of borrow areas, backfill material stockpile sites and access road	21
12 Effluents	21
13 Atmospheric emissions and dust	22
14 Noise & vibration.....	23
15 Waste.....	23
16 Vegetation clearing	27
17 Biodiversity	28
18 Erosion and sediment transport	30
19 Site rehabilitation	31
20 Documentation on the Project Area condition	33
C. Health & Safety	33
21 Health and safety plan	33
22 Daily and weekly meetings	34
23 Equipment and operating standards	34
24 Work permit	35
25 Personal protective equipment	35
26 Dangerous substances	35
27 Planning for emergency situation.....	37
28 Medical check-ups	38
29 First aid	38
30 Health care centre & medical personnel.....	39
31 First aid kits.....	40

32	Emergency medical evacuations	40
33	Access to health care	40
34	Health monitoring	41
35	Sanitary repatriation	42
36	Hygiene, accommodation and food.....	42
37	Substance abuse	44
D. Local Labour and Relations with Local Communities		44
38	Labour conditions	44
39	Local recruitment	44
40	Transport & accommodation.....	46
41	Meals	47
42	Damage to people and property	47
43	Land acquisition and land take.....	48
44	Traffic	48
APPENDIX 1 – Contents of Worksite - ESMP.....		51
ESMP has been provided with DBO document.....		51
APPENDIX 2 – Properties rendering a product dangerous		57

A. Environmental, Social, Health and Safety Management System

1 Responsibilities and Liabilities

- 1.1 In conjunction with his obligations defined under the Contract, the Contractor will plan, execute and document construction works pursuant to the Environment, Social, Health and Safety (ESHS) Specifications.
- 1.2 The Contractor is liable for all damages to natural resources caused by the execution of the Works or the methods used for execution, unless it is established that the execution or methods were necessary, according to the provisions of the Contract or an Employer's Representative's instruction.
- 1.3 Under the Contract and as introduced by the ESHS Specifications, the term "Project Area" means:
- a) The land where work will be carried out; or
 - b) The land necessary for the implantation of construction facilities (work camp, workshops, offices, storage areas, concrete production plants) and including special access roads; or
 - c) Quarries for aggregates, rock material and riprap; or
 - d) Borrow areas for sand and other selected material; or
 - e) Stockpiling areas for backfill material or other demolition rubble; or
 - f) Any other location, specifically designated in the Contract as a Project Area.

The term "Project Area" encompasses any individual Project Area or all Project Areas.

For the sake of clarity, Project Area is a different concept than Site under Sub-Clause 1.1.72 of the CC.

Project Area defines an area within which the Contractor is to comply with environmental, social, health and safety obligations defined in the ESHS Specifications.

Site is the places where the Permanent Works are to be executed and to which Works and materials are to be delivered, and where right of access to, and possession of, is to be given by the Employer to the Contractor. The Employer is under no similar obligation for any area located outside the Site, even if within the Project Area, where access is at Contractor's risk.

In term of physical footprint, the CC Sub-Clause 1.1.72 Site is included in the Project Area. The Project Area is then of greater geographical extent than the Site.

1.4 The ESHS Specifications refer to the entire area of influence for the Works:

- a) Protection of the natural environment (water, air, soil, vegetation, biological diversity) in areas within any Project Area and its surroundings, i.e. including but not limited to access roads, quarries, borrow areas, stockpiling of backfill material, camps or storage areas;
- b) Health and safety conditions to be maintained for the Contractor's personnel and any other person present on the Project Areas, or along access routes;
- c) Working practices and the protection of people and populations living near the Project Area but exposed to the general disturbance caused by works.

1.5 Subcontractors:

The ESHS Specifications apply to the Contractor and unless explicitly agreed with the Employer's Representative, all Subcontractors used for the execution of the Works. Pursuant to Sub-Clause 4.4 of the CC, the Contractor is fully liable for all actions, non-compliance and negligence by Subcontractors, their representatives, employees and workers, to the same degree as it would be held liable for its own actions, non-compliance or negligence or that of its own representatives, employees or workers.

1.6 Applicable regulations:

The Contractor must identify all regulations in relation to the protection of the environment (water, air, soils, noise, vegetation, fauna, flora, waste, groundwater) and, pursuant to Clauses 4 and 6 of the CC, the protection of people (labour law, indigenous populations, standards on occupational exposure, other). The Contractor must list all texts, standards and other regulatory limitations in its Worksite Environmental and Social Management Plan (Worksite - ESMP as specified in Sub-Clause 2.1 of the ESHS Specifications) and specify the means taken for compliance.

2 ESHS Planning Document

2.1 Worksite Environmental and Social Management Plan (Worksite - ESMP)

- 2.1.1 The Contractor prepares and ensures prior validation by the Employer's Representative, implementation and regular

update of a Worksite Area Environmental and Social Management Plan (Worksite - ESMP).

- 2.1.2 The Worksite - ESMP represents the unique reference document in which the Contractor defines in detail all organisational and technical provisions implemented to satisfy the obligations of the ESHS Specifications.
- 2.1.3 The Contractor defines in the Worksite - ESMP the number, the locations and the type of Project Area as defined in Sub-Clause 1.3 of the ESHS Specifications. For each of the identified Project Area, unless otherwise agreed by the Employer's Representative, the Contractor establishes an Environmental Protection Plan (EPP). The EPP(s) are annexed to the Worksite - ESMP.
- 2.1.4 The Worksite - ESMP covers the entire period from the Contract Agreement signature date to the date of issue of the Contract Completion Certificate by the Employer's Representative.
- 2.1.5 Unless agreed otherwise by the Employer's Representative, the Worksite - ESMP is written in the language of communication defined under Sub-Clause 1.4 of the CC.
- 2.1.6 The first draft version of the Worksite - ESMP is to be provided by the Contractor to the Employer's Representative within 28 days from the date of execution of the Contract Agreement.
- 2.1.7 No physical work or activity shall commence on any Project Area until such time the Worksite - ESMP, and the annexed EPP corresponding to the Project Area, are approved by the Employer's Representative.
- 2.1.8 During the execution of the Works, whenever instructed by the Employer's Representative, the Worksite - ESMP will be updated by the Contractor and reissued to the Employer's Representative. The revised version shall highlight the new elements incorporated in the document.
- 2.1.9 The Worksite - ESMP (and the EPP) is structured according to the plan specified in Appendix 1 to the ESHS Specifications.

3 Management of non-conformities

- 3.1 In application of Clause 5, non-conformities detected during inspections carried out by the Contractor or Employer's Representative are subject to a process adapted to the severity of the situation. The non-conformities will be defined as Deviations from the requirements of the applicable regulations, the ESHS

Specifications, the ESMP, and the Worksite - ESMP. Non-conformities are divided into 4 categories as follows:

- 3.1.1 Notification of observation of minor non-conformities. The non-conformity results in a notification to the Contractor's Representative, followed-up by a signed notification of observation prepared by the Employer's Representative. The multiplication of notifications of observation at the Project Area, or absence of corrective actions by the Contractor, can result in the severity of the non-conformity being raised to that of level 1.
- 3.1.2 Level 1 non-conformity: Non-conformities that present a moderate and non-immediate risk for health, environment, social or safety. The non-conformity is identified in writing to the Contractor and shall be resolved within five (5) days. The Contractor addresses to the Employer's Representative the proof explaining how the non-conformity has been corrected. Further to an inspection and a favourable evaluation of effectiveness of the corrective action, the Employer's Representative validates in writing the close-out report for the non-conformity. In all cases where a non-conformity of level 1 is not resolved within one (1) month, the severity of the non-conformity is raised to level 2.
- 3.1.3 Level 2 non-conformities: applies to all non-conformities that represent a moderate and immediate risk or with significant consequences to health and/or the environment, social or safety. The same procedure as for level 1 non-conformities is applied. Corrective action shall be taken by the Contractor within three (3) days. All level 2 non-conformities which are not resolved within one (1) month, are raised to level 3.
- 3.1.4 Level 3 non-conformities: applies to all non-conformities that have resulted in damage to health or the environment, or which represent a high risk for health, safety, environmental or social hazards. The highest levels of the Contractor's and Employer's Representative's hierarchies present in the Employer's country are informed immediately and the Contractor has twenty-four (24) hours to bring the situation under control. Pursuant to Clause 14.7 of the CC, a level 3 non-conformity results in the suspension of interim payments until the non-conformity has been resolved. If the situation requires, and in pursuance to Clause 9.7 of the CC, the Employer's Representative can order the suspension of work until the resolution of the non-conformity.

4 Resources allocated to environmental management

4.1 ESHS supervisors and Manager:

- 4.1.1 Pursuant to Sub-Clause 4.18 of the CC and in addition to the provisions of Sub-Clause 6.7 of the CC, the Contractor appoints one (or two depending on the case) Environment, Social, Health and Safety manager(s) in charge of implementing the ESHS Specifications. Several experts may be assigned to fulfil this position. The manager(s) will be the Key ESHS Personnel identified in the bidding process, if any.
- 4.1.2 The ESHS Manager is permanently based at the Project Area for the full duration of the works as of Contractor's mobilisation until Commissioning Certificate is issued.
- 4.1.3 This manager holds the power within the Contractor's organisation to be able to suspend the works if considered necessary in the event of level 2 or 3 non-conformities, and allocate all resources, personnel and equipment required to take any corrective action considered necessary.
- 4.1.4 The ESHS Manager speaks fluently the language of communication of the Contract, and the official language of the Employer's country, if the language of communication of the Contract is not the official language. The ESHS Manager will hold a relevant University degree or a significant experience of at least five (5) years in designing and monitoring the implementation of an environmental and social management plan for construction works.
- 4.1.5 ESHS supervisors are appointed in sufficient numbers and represent the ESHS Manager within work teams. Their role is to ensure that the works are carried out pursuant to the ESHS Specifications and notify the ESHS Manager of any detected non-conformities.

4.2 Person in charge of relations with external stakeholders:

- 4.2.1 The Contractor appoints a person responsible for relations with external stakeholders: local communities, administrative authorities, religious and other representatives. If necessary, a team will be created.
- 4.2.2 Administrations and local authorities will be informed of the existence of this person as of the start of works and will be provided with contact details so as to be able to contact this person if a problem arises during the execution of works, or concerning the behaviour of the Contractor's Personnel, inside or outside the Project Area.

- 4.3 The team, including the ESHS supervisors and manager, and the person in charge of relations with external stakeholders, will be allocated the necessary resources to operate independently (travel, office equipment and communication).

5 Inspections

- 5.1 In addition to the ESHS Manager's own inspections, an ESHS inspection will be carried out on the facilities and Project Area on a weekly basis jointly with the Employer's Representative.
- 5.2 A written report will be drafted for each weekly inspection, in a format approved by the Employer's Representative, addressing non-conformities detected on the Project Area as specified in the ESHS Specifications.
- 5.3 Each non-conformity will be documented by a digital photograph with captions to provide a visual illustration, explicitly indicating the location, date of inspection and the non-conformity in question.

6 Reporting

- 6.1 As part of the Progress Report specified in Sub-Clause 4.21 of the CC, the Contractor submits an ESHS activity report summarising all ESHS initiatives implemented in relation to the execution of the works during the reporting period to the Employer's Representative on a monthly basis. The activity report is a separate document from the update of the Worksite - ESMP, which is updated at the intervals indicated in Sub-Clause 2.1.8 of the ESHS Specifications.
- 6.2 The ESHS activity report is written exclusively in the language of communication defined under Sub-Clause 1.4 of the CC.
- 6.3 Pursuant to Sub-Clause 4.21 of the CC, the ESHS activity report is submitted at the latest 7 working days after the last day of the month in question. The report contains the following information.
 - 6.3.1 List of ESHS personnel present at the Site at the end of the month.
 - 6.3.2 Construction works activities conducted during the month.
 - 6.3.3 Inspections carried out (location and intervals).
 - 6.3.4 Non-conformities detected during the month with descriptions of the root cause analysis and corrective actions taken.
 - 6.3.5 Description of actions conducted and measures taken during the month to remedy non-conformities and to manage environmental, social, health and safety risks and impacts.

- 6.3.6 Description of stakeholder engagement activities undertaken with neighbouring populations, local authorities, governmental agencies.
- 6.3.7 Monitoring results for the following indicators:
 - a) Effluent quality (Sub-Clause 12.5 of the ESHS Specifications), if applicable;
 - b) Drinking-water quality, if applicable;
 - c) Hazardous and non-hazardous waste generation;
 - d) Air and noise emissions, if applicable;
 - e) Project Area location (Sub-Clause 20 of the ESHS Specifications);
 - f) Recruitment, number of positions and hours worked by local Contractor's Personnel (Sub-Clause 39.3 of the ESHS Specifications);
 - g) Health & safety statistics: in pursuance to Clauses 4 and 6 of the CC, number of fatal accidents, lost-time accidents, number of accidents without lost-time, serious illness, frequency of accidents, and serious misconduct by Contractor's Personnel (record sheet attached as an appendix to the activity report, pursuant to Sub-Clause 7.7 of the ESHS Specifications); including root cause analysis and corrective actions taken.
- 6.3.8 Where appropriate, description of the formal or informal complaints (negative media attention, strikes or labour disputes, protests, complaints from communities, NGO or workers or formal notice from authorities...) related to environmental, social, health and safety risks and impacts of the works; including root cause analysis and corrective actions taken.
- 6.3.9 Report on training activities (topic, number and duration of sessions, number of participants).
- 6.3.10 Provisional environmental, social, health and safety actions for the coming months.
- 6.4 Notification of ESHS events:
 - 6.4.1 The Employer's Representative is informed within one hour of any accident (i) involving serious bodily injury to a member of personnel, a visitor or any other third party, caused by the execution of the works or the behaviour of the personnel of the Contractor, or (ii) any significant damage to

private property, or (iii) any significant damage to the environment.

- 6.4.2 The Employer's Representative is informed as soon as possible of any near-accident relating to the execution of the works which, in slightly different conditions, could have led to bodily injury to people, or damage to private property or the environment.

7 Rules of Procedure

- 7.1 Rules of procedure are established by the Contractor for the Project Areas, addressing the following: safety rules, zero tolerance for substance abuse (refer to Clause 37), environmental sensitivity of areas around the Project Areas, the dangers of STDs with HIV/AIDS, gender issues (in particular sexual harassment) and respect for the beliefs and customs of the populations and community relations in general (drawing special attention to the risks of prostitution and human trafficking).
- 7.2 The rules are clearly displayed at the different Project Areas.
- 7.3 The rules confirm the Contractor's commitment to implementing the ESHS provisions provided for in the Contract.
- 7.4 New Contractor's Personnel and existing Contractor's Personnel are made aware and acknowledge their understanding of the rules of procedure and the associated provisions. Rules of procedure document are initialed by all Contractor's Personnel prior to the start of any physical work at any Project Area.
- 7.5 Pursuant to Sub-Clauses 6.9 and 6.11 of the CC, the rules of procedure include a list of acts considered as serious misconduct and which must result in dismissal from any Project Area by the Contractor, or by the Employer's Representative if the Contractor is not acting in due course, should a Contractor's Personnel repeatedly commit an offence of serious misconduct despite awareness of the rules of procedure, and this is without prejudice to any legal action by any public authority for non-compliance with applicable regulations:
- a) Drunkenness during working hours;
 - b) Drug use;
 - c) Punishable statements or attitudes, and sexual and mental harassment in particular;
 - d) Violent behaviour;
 - e) Intentional damage to the assets and interests of others, or the environment;

- f) Repeated negligence or imprudence leading to damage or prejudice to the environment, the population or properties, particularly breaching provisions intended to prevent the spreading of STD with AIDS;
- g) Possession and/or consumption of meat or any other part of an endangered animal or plant as defined in the Washington convention (CITES) and national regulations.

7.6 Serious misconduct, such as organization of sex trade (pimping), committing paedophilia, rape, physical aggression, drug trafficking, deliberate and severe pollution, trading and/or trafficking in all or part of protected species, shall lead to immediate dismissal as of the first report of misconduct is detected, in application of the rules of procedure and labour laws.

7.7 The Contractor establishes a record for each case of serious misconduct, and a copy will be provided to the Contractor's Personnel in question, indicating all action taken to terminate the misconduct by the Contractor's Personnel in question and to bring the attention of other Contractor's Personnel to the type of incident detected. This record will be provided to the Employer's Representative as an attachment to the ESHS activity report (see Sub-Clause 6.3 of the ESHS Specifications).

8 ESHS Training

8.1 The Contractor prepares a training and capacity building programme for its Contractor's Personnel, as described in the Worksite - ESMP and documented each month in the ESHS activity report.

8.2 The Contractor also details in the training programme the actions and ESHS training for Subcontractors and other members of the joint venture when applicable.

8.3 Training sessions are two-fold: introductory sessions for starting work at the Project Area, and technical training as required in relation to the execution of the works.

8.3.1 Starting work sessions are organised for each Contractor's Personnel and shall cover as a minimum:

- a) Rules of procedure;
- b) Safety rules on Project Areas;
- c) Protection of areas adjacent to Project Area;
- d) Risks relating to sexually transmitted diseases (Sub-Clause 6.7 of the CC), prostitution, human trafficking, and sexual harassment;

- e) Basic health: combating malaria (if prevalent) and waterborne diseases, improving hygiene;
- f) Emergency response procedures or evacuation.

8.3.2 Technical training:

- a) Training in the skills needed for tasks requiring a work permit (Clause 24 of the ESHS Specifications);
- b) Training in first aid and transporting the injured in order to achieve the targets defined in Sub-Clause 29.1 of the ESHS Specifications on the number of first aid officers per Project Area and per team;
- c) Ability to drive on rough ground.

8.4 The Contractor prepares an awareness programme, where applicable, for local communities adapted to the main risks relating to the Works. This programme will be included in the training programme described in Sub-Clause 8.1 of the ESHS Specifications.

9 Standards

9.1 The Contractor complies with all norms, standards and discharge limit values defined in the national regulations of the Employer's country regulations and pursuant to Sub-Clause 1.6 of the ESHS Specifications.

9.2 The Contractor complies with norms, standards and discharge limit values recommended by the specialised international organisations affiliated to the United Nations, as described in Sub-Clause 9.3 below of the ESHS Specifications. In the event of discrepancies in between international standards and national regulations, the Contractor shall comply with the most stringent requirements.

9.3 The specialised international organisations affiliated to the United Nations referred to in Sub-Clause 9.2 of the ESHS Specifications include:

- World Bank, including the IFC and its Environmental, Health and Safety guidelines available from <http://www.ifc.org/ehsguidelines>.

For matters not addressed in the IFC above document, the most stringent of the norms, standards and discharge limit values of the following institutions shall apply:

- World Health Organization (WHO);
- International Labour Organization (ILO) (in particular in pursuance to Sub-Clauses 6.20, 6.21, 6.23 and 6.24 of the CC);

- International Maritime Organization (IMO).

B. Protection of the Environment

10 Protection of adjacent areas

- 10.1 Pursuant to Sub-Clause 4.18 of the CC, and unless instructed otherwise by the Employer's Representative, the Contractor uses construction methods and means of protection in order to avoid or minimize adverse effects that are incurred on vegetation, soils, groundwater and surface water, biodiversity, natural drainage and the water quality in areas within any Project Area and its surroundings for the entire duration of the Works.
- 10.2 Wetland areas include marshes, fens, mires or natural or artificial bodies of water, whether permanent or temporary, where water is stagnant or flowing, fresh, saline or briny, including seawater with a low-tide depth of six metres or less. Filling of all or part of a wetland area is not permitted, unless the Works are necessary according to the provisions of the Contract or the instructions of the Employer's Representative.
- 10.3 With the exception of access roads, or unless instructed otherwise by the Employer's Representative, the entire perimeter of land sites with a surface area of less than 2 hectares is physically demarcated with a fence or tape. For Project Area with a surface area of more than 2 hectares, the perimeter will be physically demarcated by a perimeter track, road, signs or any other means leaving no possible ambiguity as to the location of the Project Area perimeter.
- 10.4 Unless instructed otherwise by the Employer's Representative, the Contractor defines the perimeter of the Project Area at a distance of at least:
 - a) 50 m from any permanent water course and outside of floodable areas;
 - b) 300 m from sensitive urban services and buildings (health centre, school centres, water supply for populations);
 - c) 200 m from any housing; and
 - d) 300 m from housing in the specific case of work requiring the use of explosives.
- 10.5 If the footprint of the Works do not respect the distances mentioned in the situations a) to d) of Sub-Clause 10.4 above of the ESHS Specifications, and unless agreed upon otherwise by the Employer's Representative, the Contractor will contract a bailiff to make a sworn statement regarding the existence and conditions of residential buildings situated around the Site with a distance specified in paragraph b) to d) of Sub-Clause 10.4 of the ESHS

Specifications. The bailiff's sworn statement is prepared and provided to the Employer's Representative with the EPP.

11 Selection of borrow areas, backfill material stockpile sites and access road

- 11.1 The Contractor will submit to the Employer's Representative for prior approval, within the framework of the EPP (provided in Clause 2.1.3), (i) the location of proposed borrow areas or areas to be excavated, or (ii) proposed backfill material stockpile locations or zones designated for the rubble from demolition Works.
- 11.2 The access routes to the Project Areas will be shown on a map and approved by the Employer's Representative prior to the start of the corresponding Works.

12 Effluents

- 12.1 Effluents consist of liquid discharges, including infiltration, from Project Area, transporting a pollutant (dissolved, colloidal or particles).
- 12.2 A pollutant is a given chemical compound that is at a concentration that is greater than the limit values recognised for that compound according to Clause 9 of the ESHS Specifications.
- 12.3 If no recognised threshold exists pursuant to Sub-Clause 12.2 of the ESHS Specifications, the Contractor provides proof that the charges are harmless.
- 12.4 No effluent is discharged by the Contractor into water courses, soils, lakes or the marine environment without prior treatment and without monitoring of the treatment's performance to guarantee the absence of pollution.
- 12.5 The Contractor carries out or contracts the monitoring of the effluent quality pursuant to Sub-Clause 12.4 of the ESHS Specifications. In the first case, the Contractor provides the ESHS Manager with the means and skills to carry out in-situ monitoring and laboratory analysis of the performance indicators. In the second case, the Contractor establishes a contract with a specialised contractor, accredited with the Employer's country authorities for this activity.
- 12.6 The physical and chemical parameters of the effluent that are monitored are those that are listed in the applicable regulations according to the provisions of Clause 9 of the ESHS Specifications. The parameters have prior approval from the Employer's Representative.
- 12.7 The Contractor will list, locate, and characterise (flow, expected quality, discharge frequency) all sources of effluents and outlets in the natural environment in the Environment Protection Plan(s).

12.8 The Contractor will submit to the Employer's Representative an effluent monitoring report on a monthly basis, including documentation for the following for each effluent discharge point: (i) average flow rates of discharged effluents, (ii) discharge frequencies and durations over the month, and (iii) the physical and chemical quality of the effluent discharged, for the conformity parameters listed in Sub-Clause 12.1 above of the ESHS Specifications.

12.9 The special case of rainwater run-off:

12.9.1 Run off consists of the rainwater flow on the surface or the soil and other technical surfaces at Project Areas.

12.9.2 In the context of the Contract, run-off is considered as an effluent and will be treated in accordance with Sub-Clause 12.4 above, unless demonstrated otherwise, as documented and substantiated by the Contractor, and approved by the Employer's Representative.

12.9.3 Particular attention will be given to all platforms with installed generators, hydrocarbon storage tanks, refuelling stations and concrete plants (cover, containment, settling, pH neutralization).

13 Atmospheric emissions and dust

13.1 Emissions refer to any discharge into the air of solid substances, aerosols, gases, radiation, or energy, whether point sources (e.g. incineration stack) or diffuse (e.g. fugitive dust emissions from road use by trucks).

13.2 The Contractor will use equipment and adopt construction and transport methods with atmospheric emissions which are not in excess of the threshold emission values recommended in the applicable regulations according to the provisions of Clause 9 of the ESHS Specifications.

13.3 The fleet of vehicles or equipment emitting combustion gases will be maintained at the intervals and according to the methods specified by the manufacturer.

13.4 The Contractor will document the maintenance records for its fleet of vehicles, machinery and equipment. The records will be in the language of communication defined under Sub-Clause 1.4 of the CC, or any other language approved by the Employer's Representative, and will be at the disposal of the Employer's Representative.

13.5 On unpaved roads used by the vehicles and machinery of the Contractor:

13.5.1 The Contractor takes action to abate fugitive dust emissions generated by vehicles or mobile equipment in residential areas and on roads within the Project Area perimeter.

13.5.2 The Contractor will implement the necessary measures, as described in the Worksite – ESMP, to avoid or limit dust generation: dust removal, regular watering, reduction of Contractor's vehicles speed as specified in Sub-Clause 44.10 of the ESHS Specifications.

13.6 When storage, handling and transportation of bulk materials is made in the open air and exposed to the wind, the Contractor implements the necessary dust abatement measures, including one or several of the following techniques: vegetation of the surface, covering of the surface, humidification of the surface, covering the trucks, etc.

14 Noise & vibration

14.1 The Contractor uses equipment and adopts construction and transport methods so not to generate noise levels in excess of values recommended in the applicable regulations according to the provisions of Clause 9 of the ESHS Specifications.

14.2 Except as otherwise provided in the Contract or unless waived by the Employer's Representative, high noise generating works (e.g. pile driving, blasting, rock clearing, drilling, percussion drilling) which may impact occupied receptor areas are carried out during normal working days, but prohibited at night. A receptor area is defined as an area used for nocturnal socioeconomic activities (e.g. accommodation camps, residential areas, hotels, health centres).

14.3 The use of heavy vehicles at night is specified in Sub-Clause 44.9 of the ESHS Specifications.

15 Waste

15.1 The Contractor is responsible for identifying, collecting, transporting and treating all waste produced on the Project Areas by its personnel, Subcontractors and visitors.

15.2 Waste management should be based on the following hierarchy: prevention of waste generations, reuse, recycling and disposal. The Contractor selects suppliers having a voluntary and documented policy to reduce the volume and weight of packaging, and to select recyclable or biodegradable packaging.

15.3 The Contractor establishes and maintains a waste register which is at the disposal of the Employer's Representative. This register will record all waste management operations: production, collection, transport, treatment. The following aspects are documented in this register:

- a) Type of waste, using the nomenclature specified Sub-Clause 15.7 of the in ESHS Specifications;
 - b) Waste quantities;
 - c) Name and address of the third party waste management facilities receiving waste or parties taking possession of the substances no longer considered as waste;
 - d) Name and address of waste transport contractors;
 - e) Planned waste treatment.
- 15.4 The Contractor files and maintains at the disposition of the Employer's Representative the waste manifests for the collection, transport, treatment and/or elimination of waste.
- 15.5 The waste register is established and available as of the Contractors mobilisation to any Project Area. This register will be archived for at least 1 year after the Commissioning Certificate for the Works is issued.
- 15.6 The Contractor implements specific waste management practices adapted to the level of danger for human health or the natural environment. Three waste categories are identified for Project Areas and in tracking documents:
- a) Hazardous waste: any waste with one or several dangerous properties as listed in Appendix 2 to the ESHS Specifications;
 - b) Non-hazardous waste: any waste with no properties rendering it hazardous. Non-hazardous waste contaminated by hazardous material will be considered as hazardous waste, unless instructed otherwise by the Employer's Representative;
 - c) Inert waste: any waste unaffected by any significant physical, chemical or biological modifications, which does not decompose, burn or produce any physical or chemical reaction, is not biodegradable and does not damage any substance with which it comes into contact in a manner likely to cause damage to the environment or human health.
- 15.7 The Contractor assesses, document and effectively implements any local recycling or re-use options for its waste.
- 15.8 Waste is categorised and stored separately prior to removal from the Project Areas, depending on the level of danger, phase (liquid, solid or gas), the waste management solution to be applied and its potential in terms of recycling or reuse.

15.9 Waste is collected from each Project Area at the same rate that it is produced and is placed in temporary locations meeting the following criteria:

- a) Located at a distance of over 100 m from any natural sensitive area and over 500 m from any socioeconomic sensitive area (school, market, healthcare centre, water well or catchment area), with the exception of waste storage area in camps;
- b) Protected from moving machinery and vehicles, but easy to access for regular collection;
- c) Located on a flat impervious surface to prevent infiltrations;
- d) Under cover for non-inert waste;
- e) Stored in containers of the appropriate size, tightness and level of resistance depending on the danger and phase (solid, liquid, gas) of the waste;
- f) Liquid wastes storage is equipped with secondary retention with a volume at least equal to the greater of the following two values (i) 100% of the capacity of the largest reservoir and (ii) 50% of the overall capacity of the associated reservoirs;
- g) Hazardous waste stored pursuant to Sub-Clause 26.8 of the present ESHS Specifications.

15.10 Waste is removed from Project Areas and transported to recycling, treatment and waste management facilities on a regular basis. The frequency of removal, approved by the Employer's Representative, guarantees:

- a) No overflow from containers;
- b) No unpleasant odour or emissions which are dangerous for human health;
- c) No proliferation of insects, rodents, dogs or other animals which are harmful or dangerous for human health;
- d) Regular cleaning of containers and surfaces on which they are located.

15.11 Unless otherwise specified in the Contract or instructed by the Employer's Representative, waste incineration is prohibited on Project Areas. Two exceptions are medical waste and green waste, which unless instructed to the contrary by the Employer's Representative, are managed pursuant to Clauses 15.15.1 and 16.1.3 of the ESHS Specifications.

The use of third party waste management services is subject to a documented prior audit of the treatment, storage and recycling facilities by the Contractor, to guarantee the conformity with the provisions of the ESHS Specifications on waste.

15.12 Pursuant to Sub-Clause 1.5 of the ESHS Specifications, the provisions applicable to the Contractor regarding waste management also apply to any third party waste management Subcontractor. The Employer's Representative reserves its right to inspect third party waste management facilities and prohibit the Contractor from using the facilities if considered unacceptable.

15.13 The management of non-hazardous waste complies with the following conditions:

15.13.1 Inert waste is removed or treated on-site and can be disposed in a permanent or temporary landfill with unused backfill material. The location, capacity and environmental protection measures, particularly for water courses, implemented by the Contractor or any Subcontractor, will comply with the provisions of the ESHS Specifications, and will be described in the EPP and validated by the Employer's Representative.

15.13.2 Non-hazardous waste that cannot be recycled is disposed of to landfill, complying with the following criteria:

- a) Walls and base sealed by a geo-membrane or a layer of compacted clay with a permeability 10^{-7} cm/s;
- b) Drained for the recovery of leachates, which are routed to a lagoon aerobic/anaerobic treatment prior to discharge into the natural environment or collected in a temporary storage prior to regular collection and transfer to a treatment unit (septic tank or wastewater treatment plant);
- c) Regularly compacted and covered by earth to limit odours and the proliferation of insects;
- d) When the landfill has reached full capacity, vents are installed to evacuate gases, and the landfill covered by a geo-membrane with a minimum thickness of 1 mm, or a layer of compacted clay, and a top layer of 1.5 m of topsoil, which is revegetated.

Any other proposal must first be validated by the Employer's Representative.

15.14 The Contractor's hazardous waste is managed by a specialised waste Subcontractor, accredited in the Employer's country for this activity.

15.15 In the absence of an existing waste management solution for hazardous waste satisfying the provisions of Sub-Clause 15.14 of the ESHS Specifications, the Contractor takes the following action:

15.15.1 Medical waste is incinerated in a specific facility constructed and accredited for this purpose. The Contractor will submit the technical specifications of the facility to the Employer's Representative before importing or procuring the equipment.

15.15.2 Hydrocarbons, lubricants, paints, solvents and batteries are transported in drums to the capital city, or any other city where suitable waste management facilities are available. Sludge from settling tanks/ponds, septic tanks or oily water skimmers will also be managed in the same way.

15.15.3 Contaminated soils from construction/demolition and drilling muds will be treated, stabilised and disposed of to landfill. Prior approval is required from the Employer's Representative regarding the method and site location. The Contractor obtains authorisation from the competent local authorities prior to any disposal to landfill.

15.15.4 Prior approval from the Employer's Representative is required before implementing waste management solutions on any other hazardous waste.

15.15.5 Prior to the issue of the Commissioning Certificate for the Works, the Contractor provides documentation on hazardous waste landfilled at other sites than accredited third party waste management facilities. The documentation includes a plan showing the location of landfill sites. The document is provided to the competent local authorities whose jurisdiction covers the landfill sites.

16 Vegetation clearing

16.1 The Contractor describes in the Worksite - ESMP the planned methods and schedule for vegetation clearing. Specific agreement from the Employer's Representative is obtained prior to any clearing works.

16.1.1 Vegetation clearing using chemicals is not permitted.

16.1.2 Vegetation clearing using bulldozer is not permitted in zones less than 30 m from areas designated as sensitive by the

Employer's Representative, where only manual clearing is authorised.

- 16.1.3 Unless otherwise specified in the Contract or if otherwise instructed by the Employer's Representative, burning vegetation is not permitted. Green waste can be burnt with prior approval from the Employer's Representative regarding the location, method and schedule.
- 16.2 Areas cleared prior to undertaking earthworks are shown on a plan with a minimum scale of 1/10,000. Plans are submitted to the Employer's Representative for validation prior to starting clearing works.
- 16.3 The Contractor undertakes physical demarcation of zones to be cleared using a method approved by the Employer's Representative.
- 16.4 Trees not to be cut down are identified in relation with the Employer's Representative. Such trees are marked with paint and protected against clearing machinery using a method approved by the Employer's Representative.
- 16.5 Clearing is undertaken without damage to adjacent non-cleared areas. Topsoil is stored within the cleared areas at the edge of the cleared zone. Clearing is undertaken working from the edge of the zone inwards.
- 16.6 Wood with economic value:
 - 16.6.1 During clearing, the Contractor stockpiles separately: (i) tree trunks with a diameter at chest height greater than the size defined by the Employer's Representative, and (ii) trunks with a smaller diameter, branches, leaves, stumps and roots.
 - 16.6.2 Unless instructed otherwise by the Employer's Representative when validating the plans of Sub-Clause 16.2 of the ESHS Specifications or unless specified otherwise in the Employer's country regulations, the trunks of trees exceeding the diameter defined by the Employer's Representative are made available to the local communities, according to the methods defined with the Employer's Representative.

17 Biodiversity

- 17.1 The Contractor shall ensure that all personnel are informed and aware of the importance to protect fauna and flora. Information and awareness training is documented.

- 17.2 The Contractor shall ensure that all personnel are informed and aware of wildlife encounters procedures. Information and awareness training is documented.
- 17.3 The Contractor shall define in the Worksite – ESMP the methods with regards to fauna and flora management prior to clearing activities. This method must notably address the work schedule, which sometimes can be adjusted to limit impacts on fauna and flora.
- 17.4 Where possible, areas shall be cleared from one side to another, or from the inside out, to prevent animals becoming trapped.
- 17.5 The Contractor personnel shall not approach, injure, hunt, capture, possess, feed, transport, rear or trade wild animals and/or collect eggs while working on the Project Areas.
- 17.6 The Contractor personnel shall not collect flora species while working on the Project Areas.
- 17.7 The Contractor shall report any sighting or finding of wounded or dead wildlife to the Employer's Representative immediately.
- 17.8 The Contractor shall protect excavations to prevent injury to animals.
- 17.9 The Contractor shall release any trapped uninjured animals immediately.
- 17.10 The Contractor shall not disturb natural habitats outside the Project Areas.
- 17.11 The Contractor shall only use designated roads or paths and abide by speed limits.
- 17.12 The Contractor shall not start forest fires.
- 17.13 The Contractor shall not introduce Invasive Alien Species (IAS).
 - 17.13.1 All construction machinery imported from overseas shall be inspected to detect IAS and washed before dispatching to the Project Areas.
 - 17.13.2 If the presence of topsoil contaminated with IAS is detected, that topsoil shall only be stored or re-spread in the area from where it was removed.
 - 17.13.3 When earthworks are carried out in IAS contaminated areas, vehicles shall be washed before moving them to other areas.
 - 17.13.4 Where necessary, the Contractor shall develop IAS control procedures (e.g. physical removal, slashing, mulching, herbicides, etc.). Methods used to control or

prevent such species shall not cause adverse impacts on the environment or communities.

- 17.13.5 To limit the risk of introducing marine invasive species, the Contractor shall control the ballast water and anti-fouling systems of vessels arriving from other bioregions in accordance with International Maritime Organization (IMO) conventions and guidelines.

18 Erosion and sediment transport

- 18.1 The Contractor plans earthworks and optimises the management of space to ensure that all cleared surfaces and areas exposed to soil erosion are minimised on all Project Areas.

18.2 Topsoil:

- 18.2.1 Unless indicated otherwise by the Employer's Representative, the top 25 centimetres of the soil will be considered as topsoil.
- 18.2.2 Earthworks for the temporary occupation of the Project Area are preceded by the clearing of topsoil and the storage of this soil separately from the underlying sterile soil.
- 18.2.3 Topsoil is stored according to the provisions approved by the Employer's Representative to enable reuse during Project Area rehabilitation.
- 18.2.4 The refurbishment must be done in accordance with the provisions of Clause 19.

18.3 Draining and treatment of rainwater run-off:

- 18.3.1 The gradient of Project Areas allows the collection and drainage of rainwater from the entire surface area to one or several discharge points. No pools of water are created.
- 18.3.2 Suspended solids in rainwater are removed using sediment traps / settling ponds. Rainwater from vehicle parking areas, machinery areas, workshops is subject to treatment with oily water separators.
- 18.3.3 Rainwater treatment units are sized, cleaned, maintained and accessible to ensure compliance with the effluent quality criteria defined in Sub-Clause 12.9 of the ESHS Specifications and to allow monitoring of performance.

18.4 Sediment control:

- 18.4.1 The Contractor installs sediment control barriers to slow the flow of water and control sediment transport at Project Areas with (i) a gradient of more than 20%, and (ii) where land is

disturbed by the Works or where stockpiled mineral material are susceptible to erosion.

18.4.2 Sediment control barriers are installed on the slope or at the base of the slope to protect the natural drainage system from sediment accumulation at levels higher than the natural situation. These barriers comply with the following principles:

- a) Made with geotextiles or straw bales or any other means pre-approved by the Employer's Representative;
- b) Deployed before the start of works and removal of topsoil. Barriers can be used for the physical demarcation of working areas;
- c) Installed, cleaned, maintained and replaced according to manufacturer recommendations;
- d) Drainage surface area does not exceed 1,000 m² per 30 m of barrier. The length of the slope behind the barrier is less than 30 m, and is not used for flows in excess of 30 l/s.

18.4.3 For the dredging of marine sediments, unless specified otherwise in the Contract, or instructed otherwise by the Employer's Representative, and particularly if the working area is exposed to currents, the Contractor will install a geotextile silt curtain, or any other technique approved by the Employer's Representative to control turbidity clouds.

18.5 Backfilling and stockpiling of backfill materials:

18.5.1 In the EPP of these temporary and permanent stockpiles, the Contractor defines the proposed arrangements (height, slope, drainage, revegetation, etc.) to guarantee stability and erosion resistance.

18.5.2 For permanent backfill material stockpiles, the stockpile is shaped and compacted to ensure long-term stability.

18.5.3 Temporary stockpiles likely to result in strong erosion (duration of storage, rainy season, presence of downstream issues, etc.) are protected against runoff erosion by (i) revegetation using fast growing grass species, either by direct seeding or by hydro-seeding, or (ii) using other natural anti-erosion cover with prior approval from the Employer's Representative.

19 Site rehabilitation

19.1 Unless instructed otherwise by the Employer's Representative, the Contractor will rehabilitate all Project Areas disturbed by the

Works, prior to the completion of the Works as per CC Sub-Clause 11.5.

- 19.2 All buildings and free standing and underground structures (e.g. piping, underground tanks, sumps and basins) are removed pursuant to the provisions of Sub-Clause 4.23 of the CC. All waste and rubble is removed in accordance to the provisions of Clause 15 of the ESHS Specifications. After removal of buildings structures and rubble, the Contractor returns Project Areas to their original condition, according to the following provisions.
 - 19.2.1 Land is adjusted to ensure that run-off water drains without eroding soil or stagnating in pools. Unless instructed otherwise by the Employer's Representative, the gradients of restored sites (excluding backfill as defined in Sub-Clause 18.5 of the ESHS Specifications) must be as for the adjacent undisturbed land.
 - 19.2.2 Rehabilitated Project Areas do not represent hazards for people. Areas near steep drops at quarries are indicated with permanent concrete signs. Holes are refilled. Sharp or unstable items are rendered inoffensive.
 - 19.2.3 Unless specified otherwise in the Contract, or instructed otherwise by the Employer's Representative, the Contractor undertakes revegetation of all Project Areas disturbed by the works and bears the cost of such work.
 - 19.2.4 Topsoil set aside during initial earthworks pursuant to Sub-Clause 18.2 of the ESHS Specifications, is evenly spread over cleared areas. The surface of compacted soils on Project Areas is loosened by scouring (using rakes or other acceptable methods).
 - 19.2.5 The Contractor describes in the Worksite - ESMP the planned revegetation works to ensure sustainable Project Area rehabilitation: methods, plant/facility species to be used and their origins, activity schedule based on a progressive taking over of Project Areas.
 - 19.2.6 Prior approval by the Employer's Representative is required regarding the origin of seeds and plants proposed by the Contractor. The species used for revegetation must be suitable for the local environmental conditions, and selected according to the rehabilitation programme: stabilisation of backfill, landscaping, drainage, prevention of erosion, etc.
 - 19.2.7 Revegetation is undertaken throughout the duration of construction Works, and is not limited to the rehabilitation of Project Areas at completion of the Works.

20 Documentation on the Project Area condition

- 20.1 The Constructor documents changes in condition of all Project Areas from the start of Works until the Contract Completion Certificate is issued. Documentation comprises dated and geo-referenced colour photographs taken from a constant angle and viewpoint.
- 20.2 The Project Area condition is documented as a minimum for the following stages:
- a) Before any Project Area disturbance at the start of Works;
 - b) On completion of Works, but prior to starting rehabilitation;
 - c) On completion of rehabilitation and revegetation, if necessary, but prior to the Commissioning Certificate issuing;
 - d) After the end of the Operation Service Period and prior to the Contract Completion Certificate issuing.
- 20.3 The Contractor specifies in the Worksite – ESMP: (i) the list of viewpoints to be used, (ii) areas to be photographed, and (iii) methods used for taking and archiving photographs.
- 20.4 Adjacent areas (100 m from the perimeter of the Project Area) are included in photographic documentation.
- 20.5 Unless instructed otherwise by the Employer's Representative, structures to be buried are photographed weekly until covered. As a minimum the structures are photographed twice for Works with duration of less than 7 days, and at least once a week for Works with a longer duration.
- 20.6 Photographs subject to the present Clause 20 are archived in digital format and provided to the Employer's Representative on a monthly basis under the CC Sub-Clause 4.21 monthly progress report.
- 20.7 The nomenclature of electronic files for photographs explicitly indicates the Project Area, date and structure documented.

C. Health & Safety

21 Health and safety plan

- 21.1 In application of Clauses 4 and 6 of the CC, the Contractor describes in the Health and Safety Plan section of the Worksite - ESMP its organisation for managing health and safety (section 7 of Worksite – ESMP as described in Appendix 1 to the ESHS Specifications), pursuant to its Health and Safety Management System (HSMS) (the "Health and Safety Plan").
- 21.2 Pursuant to Clause 6 of the CC, the plan identifies and specifies:

- a) All health and safety risks relating to the execution of the Works, by also identifying gender-specific risks;
- b) Prevention and protection measures to control risks related to the execution of the Works, by differentiating, where necessary, measures concerning the protection of women and men;
- c) Human and material resources involved;
- d) Works requiring work permits; and
- e) Emergency plans to be implemented in the case of an accident.

21.3 In addition, this Health and Safety Plan describes how workers are trained in health and safety aspects.

21.4 The Contractor implements prevention, protection and monitoring measures, as described in the Health and Safety Plan.

22 Daily and weekly meetings

22.1 The Contractor organises as a minimum one health and safety meeting per Project Area per week (or at another frequency approved by the Employer's Representative) with all the personnel assigned to the Project Area. This applies only to Project Areas where work is ongoing. At the meeting accidents and incidents that occurred in the previous week are discussed and feedback provided. Means of improvements are identified, documented and assessed to establish corrective actions. The Employer's Representative is invited to participate at all health and safety meetings. Meeting reports are provided to the Employer's Representative.

22.2 The Contractor organises daily (or at another frequency approved by the Employer's Representative) health and safety meetings per team at all Project Areas, prior to the start of the daily work. The meeting establishes the health and safety risks associated with the day's tasks and activities, and means of prevention and protection to be implemented. Minutes of the meetings shall be recorded.

23 Equipment and operating standards

23.1 The facilities and equipment used by the Contractor are installed, maintained, revised, inspected and tested pursuant to the manufacturer's recommendations. The recommendations are available in the language of communication defined under Sub-Clause 1.4 of the CC (or any other language approved by the Employer's Representative).

23.2 The Contractor lists and describes in the Health and Safety Plan the national and international standards, guidelines and industry codes of practice, applied during the execution of works.

- | | |
|---|--|
| 24 Work permit | <p>24.1 Unless otherwise provided in the Contract, or unless otherwise instructed by the Employer's Representative, work requiring work permits are defined in the Health and Safety Plan. Work permits will be documented and saved.</p> <p>24.2 The Contractor puts in place a work permit procedure to manage risks through the implementation of prevention and protection measures prior to the starting of work. This procedure is subject to validation by the Employer's Representative.</p> |
| 25 Personal protective equipment | <p>25.1 The Contractor ensures that all personnel, visitors or third parties entering a Project Area are equipped with Personal Protection Equipment (PPE) pursuant to the practices and standards specified in Clause 9.</p> <p>25.2 The Contractor describes in the Health and Safety Plan the PPE to be used per Project Area and per activity.</p> <p>25.3 Personnel and visitors to Project Areas are equipped with a safety helmet, safety shoes and a reflective jacket as a minimum.</p> <p>25.4 Adequate quantities of PPE are available on the Project Areas. Storage conditions must be compatible with usage pursuant to the provisions of Sub-Clause 23.1 of the ESHS Specifications.</p> <p>25.5 Contractor personnel are trained in how to use and care for PPE and the Employer's Representative must be able to obtain the training reports.</p> |
| 26 Dangerous substances | <p>26.1 A substance is considered dangerous if one or several of its properties render it dangerous, as defined in Appendix 2 to the ESHS Specifications. The Contractor identifies and manages dangerous substances planned for use on the Project Area in the manner described in the present Clause 26.</p> <p>26.2 Details of risks and related prevention and protection measures are included in the Health and Safety Plan.</p> <p>26.3 The assessment of the impact of the toxicity of dangerous substances on the reproductive functions of women and men must be taken into account.</p> <p>26.4 The transport to the Project Area and use of dangerous substances requires prior authorisation from the Employer's Representative.</p> <p>26.5 The Contractor obtains all necessary authorisations and/or licenses for the storage and use of dangerous substances from local authorities. A copy of the authorisations is provided to the Employer's Representative.</p> |

- 26.6 For each dangerous substance used, the Contractor will implement the recommendations described (i) in the Material Safety Data Sheets (MSDS), and (ii) by the Globally Harmonized System of Classification and Labelling of Chemicals established by the United Nations for hazardous chemicals.
- 26.7 Copies of MSDSs are kept on the Project Area, and made available to personnel. The Contractor's staff is aware of the health and safety risks related to hazardous materials. The Contractor provides the Employer's Representative with copies of all MSDSs and training reports.
- 26.8 Storage of dangerous substances
- 26.8.1 Storage area are designed and equipped by the Contractor based on the chemical and physical properties of the substances, on the types of containers stored, the number of people requiring access, the ventilation requirements, the quantities of the substance used and potential chemical reaction with other substances (see Sub-Clause 26.8.5 of the ESHS Specifications).
- 26.8.2 Pursuant to Sub-Clause 15.6 of the ESHS Specifications, the Contractor anticipates and plans for the storage and management of hazardous waste.
- 26.8.3 Storage areas for dangerous substances are subject to strict rules, which are regularly checked by the ESHS Manager appointed pursuant to Sub-Clause 4.1.4 of the ESHS Specifications. The rules include the following as a minimum:
- a) Access to the storage area is limited to trained and authorised individuals;
 - b) An inventory is maintained up-to-date;
 - c) MSDSs must be available for all stored dangerous substances, and the substances must be clearly labelled;
 - d) A strict and methodical storage system is implemented (storage plan posted, large or heavy packaging may not be stored at heights, equipment and tools may not be stored in the dangerous substance storage room);
 - e) Compliance with product expiry dates and implementation of a disposal procedure for substances which are not needed or which have expired;
 - f) Entrances, exits and access to emergency equipment are kept clear at all times.

- 26.8.4 Storage areas are clearly identified with warning signs at the entrance. The Contractor displays the storage plan (location of the different products, maximum inventory), a summary of labelling system and information on chemical incompatibilities.
- 26.8.5 Chemicals which could react together (leading to explosions, fire, projections or the emission of dangerous gases) are physically separated.
- 26.8.6 Products that react violently with water are stored so as to prevent contact with water, even in the event of flooding.
- 26.8.7 Inflammable products are stored separately in a dedicated area with adequate ventilation at all times.
- 26.8.8 Buildings used to store large quantities of dangerous substances are isolated from other buildings to avoid the spreading of fire. Such buildings are constructed using solid and non-combustible building materials, and are equipped with evacuation systems and the appropriate firefighting equipment. Access to the buildings is clear, allowing for rapid evacuation in the event of an accident. The electrical systems are reduced to the essential minimum, and access points are equipped with adequate lighting (300 lux).
- 26.8.9 All storage areas are equipped with secondary retentions. Each storage area acts as a general secondary retention. Suitable absorbents (neutralising and non-combustible) are available in the storage area to clean up any spills and leaks.
- 26.8.10 The Contractor maintains the storage area at a suitable temperature for storing dangerous substances at an appropriate level to avoid any deterioration of the containers.

**27 Planning for
emergency situation**

- 27.1 The emergency plan required in application of Sub-Clause 21.2 of the ESHS Specifications covers the following emergency situations as a minimum:
 - a) Fire or explosion;
 - b) Structural failure;
 - c) Loss of the containment of dangerous substances;
 - d) Safety incident or malicious act;
 - e) Natural disasters.
- 27.2 The Contractor details the emergency plan in the Health and Safety Plan.

27.3 The Contractor ensures that all personnel are informed and aware of how to react in an emergency situation, and responsibilities are defined. Information and awareness training is documented, and available on all Project Areas.

27.4 The Contractor organises and documents emergency simulation exercises within 3 months of the physical start of the Works, and subsequently once every 12 months up to the issue of the Commissioning Certificate. The Employer's Representative is invited to participate in each of these exercises.

27.5 Fire extinguishers are made available in each building at clearly identified locations.

28 Medical check-ups

28.1 The Contractor organises medical check-ups for all Contractor's Personnel prior to the initial mobilisation to the Project Area to check aptitude for the work. Medical check-ups are adapted to the anticipated occupied positions and carried out pursuant to the recommendations of the International Labour Organization. Subsequent to the check-up, a written medical certificate is issued declaring the aptitude of the worker for the allocated tasks.

28.2 Hearing tests are conducted for the Contractor's personnel exposed to specific risks (such as noise levels above 80 dB(A), exposure to hazardous materials, etc.) in order to establish an initial state of health. Annual tests are carried out to monitor any changes and detect any deterioration.

28.3 The Employer's Representative can request additional medical examinations for the Contractor's Personnel if considered necessary, and all associated costs shall be borne by the Contractor.

28.4 A medical examination is carried out on any Contractor's Personnel returning to work after leave caused by a work related accident. A written medical certificate is issued confirming the Contractor's Personnel's aptitude to return to work at the designated workstation.

28.5 The Contractor can produce a copy of its Contractor's Personnel's work aptitude certificates at the request of the Employer's Representative or any competent authority.

28.6 Specific arrangements for tasks' assignments or workstations shall be made for pregnant Personnel.

29 First aid

29.1 The Contractor ensures that at least one first aid officer is present at any one time during working hours, per Project Area and per

team of 10 to 50 workers present, and one extra first aid officer for each additional 100 workers.

- 29.2 The Project Area must be equipped with a communication system available immediately and primarily for the purposes of communication with the first aid services. Information on how to communicate with the first aid services is clearly indicated near the communications equipment.

**30 Health care centre
& medical
personnel**

- 30.1 For Project Areas with more than 35 workers present at any one time and where it is not possible to reach a hospital, medical clinic or the Contractor's health centre within a period of 45 minutes, by land and in normal conditions:

- 30.1.1 The Contractor sets up a health care centre at its own cost. This centre is:

- a) Operational and easy to access all times;
- b) Kept clean and in good condition;
- c) Equipped with appropriate heating or air-conditioning;
- d) Equipped with sanitary facilities and drinking water;
- e) Equipped with instruments, equipment, medicines and material required to examine and treat injured or sick workers in emergency conditions;
- f) Equipped with the supplies and furnishing required to allow medical personnel to provide first aid and fulfil their other functions.

- 30.1.2 A doctor is present on-site at any one time, working full-time during normal day hours. The doctor is on-call when more than 20 workers are working simultaneously outside of normal day hours.

- 30.1.3 The doctor has the following profile:

- a) At least 5 years' experience on large-scale construction works at sites located at a distance from a hospital;
- b) Trained in infectious diseases, waterborne and epidemiological diseases prevalent in the Employer's country;
- c) Able to lead training sessions on occupational health and first aid;
- d) Trained in management and logistics for a remote health care centre;

- e) Able to speak the same working language used by most members of personnel fluently (communication in emergency situations);
- f) In good physical condition, able to access remote working areas.

30.1.4 The Contractor allocates a road or air vehicle for first aid purposes to the first aid station pursuant to standard NF EN 1789/2007.

30.1.5 The Contractor ensures the presence of at least one nurse to assist the doctor per team with 200 - 800 workers allocated, and one extra nurse for each additional 600 workers allocated to this team. Over and above 500 workers per shift, the Contractor ensures the presence of an extra doctor for each additional 500 workers allocated to this team.

31 First aid kits

- 31.1 Each Project Area must be equipped with an adequate number of first aid kits to ensure that all workers can access these kits in approximately 5 minutes. Kits must be available at all times.
- 31.2 Each vehicle is equipped with a first aid kit.
- 31.3 First aid equipment complies with attached specifications.

32 Emergency medical evacuations

- 32.1 The Contractor establishes, and provides the Employer's Representative within one month of the physical start of works a copy of an agreement with a specialised company for the handling of personnel in the event of a serious accident requiring an emergency medical evacuation, which cannot be organised using the first aid vehicle specified in Sub-Clause 30.1.4 of the ESHS Specifications without endangering the life of the patient.
- 32.2 The agreement includes a convention with a referring hospital where the member of personnel evacuated in emergency conditions will be treated.
- 32.3 The agreement covers the use of air transportation in order to evacuate the injured patient(s) to the referring hospital.

33 Access to health care

- 33.1 The Contractor guarantees access to health care as defined in Clause 30 for all personnel in necessary cases of accident or illness occurring during the execution of the Works, i.e.:
 - a) Medical check-ups: initial (recruitment), annual and upon returning to work after sick leave;
 - b) Screening, vaccinations and preventive healthcare;
 - c) General healthcare during the execution of the Works;

- d) Medical assistance in the event of an accident and assistance for emergency evacuations.

33.2 Subcontractor's personnel, other contractors, the Employer or the Employer's Representative, present at the Project Area, must never be refused medical assistance, under the pretext that they are not directly employed by the Contractor. The Contractor may however define a unit rate cost per medical act for personnel, other than its own Contractor's Personnel, display this rate in the healthcare centre and forward the information to the Employer's Representative.

33.3 In the event of accident or serious illness, medical personnel must be trained, available and equipped with the necessary material, medicines and consumables to provide first aid for the patient, stabilise their condition, until the patient is:

- a) Either treated or discharged; or
- b) Hospitalized at the camp or in a larger hospital; or
- c) Evacuated to a medical centre which is well equipped for intensive care, if necessary.

34 Health monitoring

34.1 The Contractor cannot recruit workers in poor health.

34.2 The initial pre-recruitment examination must confirm that applicants carry no infectious diseases and are physically able to carry out the tasks required for the position.

34.3 The detection of pregnancy during the initial pre-recruitment examination of female applicants shall not constitute grounds for declining recruitment, unless medical risk is proven.

34.4 The Contractor organises annual medical check-ups for its Contractor's Personnel and keeps up to date a medical record for each Contractor's Personnel. The presence of Contractor's Personnel for medical check-ups, treatment and hospitalisation is incorporated into the Contractor's planning.

34.5 The Contractor provides the Contractor's Personnel with prophylaxis and vaccinations against local diseases and vectors. In particular, the Contractor will promote the use of impregnated mosquito nets by its Contractor's Personnel in camps or off-site lodging, and distributes these nets appropriately.

34.6 The Health and Safety Plan includes a Contractor's Personnel health risk assessment based on exposure to specific risks (such as noise levels above 80dB(A), exposure to hazardous materials, etc.) and describes the medical monitoring implemented.

**35 Sanitary
repatriation**

35.1 The Contractor is responsible for the sanitary repatriation of Contractor's Personnel in the event of a serious injury or illness. The Contractor will take out the necessary insurance to cover the cost of the sanitary repatriation of its Contractor's Personnel.

**36 Hygiene,
accommodation and
food**

36.1 Drinking water:

36.1.1 Pursuant to Sub-Clause 6.14 of the CC, the Contractor provides personnel with drinking water at all Project Areas. The quantity and quality of this water complies with the standards of the World Health Organization at supply points.

36.1.2 Unless the supply of drinking water is provided by a certified supplier, the quality of the drinking water provided to workers is tested at least at the start of the Works and then on a monthly basis. The protocol for taking and analysing samples is based on the recommendations of the World Health Organization. The results shall be documented and made available on the Project Areas.

36.2 Accommodation conditions:

36.2.1 The accommodation provided for non-resident Personnel in a camp or an alternative structure outside of the Project Areas, such as a hotel or rented house, will comply with the conditions of Sub-Clause 36.2 of the ESHS Specifications in pursuance of Sub-Clause 6.6 of the CC.

36.2.2 Unless specified otherwise in the Contract, or instructed otherwise by the Employer's Representative, Personnel are housed in rooms. Rooms do not host more than 4 individuals, with no bunk beds, and with 0.5 m³ of storage space available per person.

36.2.3 Rooms shall not be mixed: separate rooms must be made available for both men and women.

36.2.4 Rooms are lit and equipped with power sockets, beds and windows fitted with mosquito nets. Flooring is of a hard and impervious material.

36.2.5 The temperature in rooms and common areas shall be kept at an appropriate level during occupied hours.

36.2.6 Night-time noise levels to which personnel are exposed comply with the limits recommended by the World Health Organization.

36.2.7 The Contractor provides one drinking water tap per 10 Contractor's Personnel, one shower per 10 Contractor's Personnel as a minimum, one individual toilet for

15 Contractor's Personnel as a minimum, and one urinal per 25 Contractor's Personnel at accommodation camps. Separate showers, toilets and locker-rooms must be made available for women.

36.2.8 The Contractor constructs and maintains a shared leisure area in each camp and a sports field for use by Personnel.

36.3 Hygiene in shared areas:

36.3.1 Sanitary areas (showers, sinks, urinals, toilets) are cleaned and disinfected by the Contractor's cleaning service at least once every 24 hours. Cleaning operations are documented.

36.3.2 The canteen, kitchen and kitchen utensils are cleaned after each meal service.

36.3.3 The number and location of toilets on Project Areas shall be adapted to the number of employees and the configuration of the Project Areas (distance, isolated area, etc.).

36.4 Food:

36.4.1 In application of Sub-Clause 6.13 of the CC and Sub-Clause 41.1 of the ESHS Specification, the Contractor provides meals at a reasonable cost to its Contractor's Personnel in a canteen area and according to a procurement system which complies with the provisions of Sub-Clause 36.4 of the ESHS Specifications.

36.4.2 The Contractor defines and implements actions in order to guarantee (i) the quality and quantities of food stuffs, (ii) compliance with health rules when preparing meals, (iii) fitting out and servicing premises and equipment, both in the kitchen and food storage areas.

36.4.3 The Contractor inspects the cleanliness of food transport vehicles, temperature control and the cold chain, as well as best before dates, and takes the necessary corrective actions. The temperatures of chillers are regularly checked.

36.4.4 The Contractor checks that health requirements are met for food storage conditions in the kitchen or other locations, food cooking times and temperatures, and the conditions in which prepared products are left prior to consumption, to ensure no health risks. No food remains are to be reused.

36.4.5 The Contractor recruits trained canteen personnel and ensures that supervisors monitor compliance with sanitary instructions. The Contractor ensures that canteen personnel have means of ensuring compliance with health rules

(changing rooms, linen, hand washers, the condition of flooring and paint, and the existence of a cleaning plan).

- 36.5 The ESHS Manager carries out an audit on all Project Areas every 3 months, and documents the results, and includes the conditions of hygiene in which meals are prepared and food conserved. The results of this audit are provided to the Employer's Representative.
- 36.6 The ESHS Manager regularly informs Contractor's Personnel on appropriate behaviour in terms of workplace hygiene. This information is documented and saved.

37 Substance abuse

- 37.1 Pursuant to Sub-Clause 6.16 of the CC, the use, possession, distribution or sale of illegal drugs, controlled substances (as per local regulations) and alcohol is totally prohibited on the Project Areas. The Contractor implements a zero tolerance policy for the consumption of these substances.
- 37.2 Any person suspected by the Employer's Representative to be under the influence of alcohol or controlled substances on any Project Area is immediately suspended from his position by the Contractor, pending the results of medical tests.

D. Local Labour and Relations with Local Communities

38 Labour conditions

- 38.1 The Contractor should ensure decent labour conditions for workers and notably compliance with applicable law and regulations in the country of implementation of the contract, and with the fundamental conventions of the International Labour Organisation (ILO). This includes workers' rights related to wages, working hours, rest and leave, overtime, minimum age, regular payment, compensation and benefits. The Contractor should respect and facilitate workers' rights to organise and provide a grievance mechanism for all direct and indirect workers. The Contractor should implement non-discrimination and equal opportunity practices and ensure prohibition of child or forced labour.

39 Local recruitment

- 39.1 Local recruitment is defined as the number of positions actually allocated to people residing in the region of the Works, which must be defined by the Contractor in its offer according to relevant criteria by giving priority to populations living in the area of influence or in the immediate proximity of the Project Area.
- 39.2 Pursuant to Sub-Clause 6.1 of the CC, the Contractor implements a voluntary local recruitment policy for its personnel for the duration of the Works and shall enforce this policy to its Subcontractors.

- 39.3 The Contractor demonstrates the effective implementation of this voluntary policy to the Employer's Representative in its monthly activity report as defined in Sub-Clause 6.3 of the ESHS Specifications.
- 39.4 Pursuant to Clause 8 of the ESHS Specifications, the Contractor shall develop a training programme. This training programme must be open to women and men and be adapted to their level of education and needs of each group to occupy the positions proposed during the Works.
- 39.5 Local labour needs are estimated prior to the start of Works and described in the Worksite - ESMP with the following information:
- a) Identification of positions that could be filled by local staff and the level of qualification required;
 - b) Definition of the planned procedure for the effective recruitment of these members of staff;
 - c) Establishment of mechanisms to ensure non-discrimination of women in accessing recruitment procedures. This mechanism must cover the definition of the positions, the methods of communication on the positions to be filled, etc.;
 - d) Deployment schedule for these positions;
 - e) Initial training to be provided by the Contractor for each job description.
- 39.6 In order to prevent outsiders from entering the Project Area, local recruitment at the Project Area, including at the entrance, is prohibited.
- 39.7 Local recruitment office:
- 39.7.1 Prior to the start of Works, the Contractor establishes a local recruitment office in the district where the main Project Area is located, at a location pre-approved by the Employer's Representative.
 - 39.7.2 A representative of the Contractor is present in this office at least two mornings each week, from the start of the works to a date pre-approved by the Employer's Representative.
 - 39.7.3 The representative provides information on job vacancies with the Contractor for the execution of the works (required qualifications, duration, and location) and on the information to be provided in applications.

39.7.4 Lists of local candidates are drafted by the representative allocated to the office and forwarded to the Contractor's humans resources manager on a weekly basis.

39.8 The Contractor's Human Resources manager selects candidates listed by the local recruitment office based on requirements for the Works and the Contractor's recruitment procedures. A written contract between the Contractor and the local Contractor's Personnel is drafted, signed and archived by the Contractor.

39.9 If the Project Areas are located near to several different communities, the Human Resources manager ensures a fair distribution of local recruitment between the different communities, by giving priority to the people affected by the project.

39.10 The Human Resources manager will ensure that recruitment campaigns in local communities have been spread to women and that the latter have not been discriminated in recruitments.

39.11 Pursuant to Sub-Clause 6.22 of the CC, the Contractor maintains one record per local Contractor's Personnel indicating the hours worked per person allocated to the works, the type of tasks carried out, the wages paid and any training taken. Records are available at the main Project Area at all times, so the Employer's Representative and the authorised representatives of the government can assess the content.

40 Transport & accommodation

40.1 Unless specified otherwise in the Contract, or instructed otherwise by the Employer's Representative, the Contractor provides or enables access to daily transport for Contractor's Personnel living more than 15 minutes' walk from the Project Area and more than one hour by land transport.

40.2 The transport is organised under conditions which comply with local regulations and which ensure the safety of the people transported.

40.3 The Contractor organises collective transport: pick-up times and locations are defined and services organised appropriately.

40.4 If the Project Area is moved during the working season and if the Contractor retains the local personnel trained at the start of the works, the accommodation of the Contractor's Personnel is managed by the Contractor:

- a) Within a mobile camp with the other non-local Contractor's Personnel; or

- b) In villages located near to the mobile Project Area, in this case, each local Contractor's Personnel will receive a housing allowance in addition to his wages.

41 Meals

- 41.1 Food supplies for the meals of the Contractor personnel will exclude any meat obtained from hunting or poaching, with the exception of fish.
- 41.2 The Contractor provides at least two meals per day to local Contractor's Personnel pursuant to the hygiene conditions specified in Clause 36 of the ESHS Specifications, at reasonable price.

42 Damage to people and property

- 42.1 The Contractor shall not disturb or interfere with the inhabitants of local communities close to or in the Project Area, and shall respect their houses, cultures, animals, properties, customs and practices.
- 42.2 Pursuant to Sub-Clauses 4.14 and from 17.9 to 17.11 of the CC, the Contractor is responsible for damages to people and property caused by the execution of the Works or the procedures used for execution.
- 42.3 Access to the Project Areas is prohibited to unauthorized persons. The Contractor is responsible for the security and access control of the Project Areas.
- 42.4 The Employer's Representative is informed of any damage caused to people, or the property of individuals, other than the Contractor's personnel, within 6 hours of the event, regardless of the value of the prejudice.
- 42.5 Housing existing before the start of the Works, located within a minimum radius of 800 m around the perimeter of the quarries and within a minimum radius of 500 m around the other Project Areas that will be subject to blasting, will be examined by a bailiff unless agreed upon otherwise with the Employer's Representative.
- 42.6 The bailiff's sworn statement is prepared and provided to the Employer's Representative with the EPP.
- 42.7 Should any problems be detected due to the intensity of blasting, the Employer's Representative is entitled to request that the Contractor carry out seismic measurements of the intensity of the vibrations induced by the blasting, at variable distances from the blasting points, under the supervision of the Employer's Representative, and at the cost of the Contractor.

**43 Land acquisition
and land take**

- 43.1 Pursuant to Sub-Clause 7.8 of the CC, the Contractor will cover (i) occupancy indemnities for the extraction or use of construction materials and (ii) the cost of acquiring or temporarily occupying the necessary land to stockpile excess backfill material.
- 43.2 The Contractor provides compensation for any prejudice suffered by the owners and users of this land, if these users are not the same parties as the owners.
- 43.3 The Contractor demonstrates to the Employer's Representative (i) who are the owner and the users, if different parties have been identified, and (ii) a written agreement governing the temporary occupancy or acquisition of this land has been negotiated and duly paid up to the two parties, if different.

44 Traffic

- 44.1 The Contractor defines a Traffic Management Plan in Worksite - ESMP (section 11 as defined in Appendix 1 to the ESHS Specifications) (the "Traffic Management Plan").
- 44.2 The Traffic Management Plan:
 - a) includes the characteristics of its fleet of vehicles and site machinery; and
 - b) defines the itineraries used on a map for each route between the different Project Areas that must be validated by the Employer's Representative.
- 44.3 The Contractor requests that the Employer obtain the authorisations of the competent administrative authorities if public roads are used. Any Employer's Representative's instruction to update the Traffic Management Plan shall be implemented.
- 44.4 Within one month of the physical start of Works, the Contractor informs the administrative authorities of areas crossed by the Contractor's vehicles, of the itinerary and characteristics (frequency of passing, size and weight of trucks, materials carried) of the Contractor's fleet of vehicles.
- 44.5 If public roads are used, and unless approved otherwise by the Employer's Representative, the Contractor mandates a bailiff to make a sworn report regarding the state of the road prior to use by the Contractor's vehicles. The report is annexed to the Traffic Management Plan.
- 44.6 The Contractor describes in the Traffic Management Plan the expected traffic created by its fleet of vehicles (frequency of trips between Project Areas, working hours, convoys).

- 44.7 The Contractor also describes the number and positioning of flagmen.
- 44.8 Unless specified otherwise in the Contract or instructed otherwise by the Employer's Representative, heavy vehicles (i.e. with a GVWR of more than 3.5 tons) may not be used at night between 22:00 and 06:00.
- 44.9 Speed limits:
- 44.9.1 The Contractor takes action to limit and check the speed of all vehicles and machinery used to execute the works.
- 44.9.2 The maximum speed of all machinery and vehicles of the Contractor comply with the lowest of the following: the speed limit defined according to the Employer's country regulations or the following limits.
- a) 10 km/h within the Project Area;
 - b) 30 km/h in villages or hamlets, in towns, from 100 m before the first house;
 - c) 80 km/h on unpaved roads outside of towns, villages, hamlets and camps.
- 44.9.3 Pursuant to Sub-Clause 4.15 of the CC, and in coordination with the competent Employer's country authorities, the Contractor provides and installs signs for the fleet of vehicles along public roads, when public signs are inadequate.
- 44.9.4 The Contractor provides each of its drivers with a map at the appropriate scale of the roads authorised for the execution of the Works, clearly indicating the maximum speeds authorised, and ensures their understanding.
- 44.10 It is strictly prohibited to transport people, equipment or products other than those required for the Works and the management of Project Areas, on board any of the Contractor's vehicles. This provision also applies to the transport of live animals and meat obtained from hunting, fishing or poaching.
- 44.11 The trailers and skips used to carry materials which could be projected (sand, crushed material, aggregates, selected materials) are covered with a tarpaulin for the entire itinerary between two Project Areas.
- 44.12 The Contractor carries out regular inspections along the roads used by its fleet of vehicles to ensure compliance with the provisions of Clauses 44.8 to 44.11 of the ESHS Specifications. The Contractor records these inspections and the results and transmits a summary

of checks carried out for the previous month to the Employer's Representative on a monthly basis.

APPENDIX 1 – Contents of Worksite - ESMP

ESMP has been provided with DBO document.

1. **Environmental policy**
 - Declaration of ESHS policy signed by the managing director of the Contractor and clearly defining the commitment of the Contractor in terms of (i) ESHS management for its construction sites and (ii) compliance with the ESHS Specifications of the Contract.
2. **Worksite -ESMP**
 - Target and content of the Worksite Environmental and Social Management Plan
 - Preparation and updating schedule
 - Quality assurance and validation
3. **ESHS resources**
 - Human resources:
 - ESHS Manager
 - ESHS Supervisors
 - Person in charge of relations with stakeholders
 - Medical personnel
 - Logistics & communications:
 - ESHS vehicles
 - IT stations
 - In situ noise, air and water measuring equipment
 - Analysis laboratory used
 - Reporting:
 - Weekly inspections
 - Monthly
 - Accident / Incident
4. **ESHS regulations**
 - Definition of standards for the applicable national ESHS regulations and the ESHS recommendations of institutions affiliated to the United Nations (WHO, ILO, IMO, IFC), applicable to the execution of works:
 - Discharge standards
 - Minimum wage
 - Day and/or night traffic restrictions
 - Other

- 5. ESHS operational inspection resources**
 - Definition of ESHS standards for the industry applied
 - Site tracking procedure:
 - Frequency
 - Personnel
 - Assessment criteria
 - Non-conformity handling and detection procedure:
 - Distribution information
 - Notification depending on the level of importance allocated to non-conformities
 - Tracking of the closing of the non-conformities
 - Management of data on tracking and non-conformities:
 - Archiving
 - Use as a performance indicator
- 6. Project Areas**
 - Description of Project Areas (as per definition in Sub-Clause 1.3 of the ESHS Specifications):
 - Number
 - Location on a topographical map
 - Activities
 - Opening & closing schedule
 - Access
 - Reference to the Appendix: an Environment Protection Plan (EPP) for each Project Area
- 7. Health and Safety Plan**
 - Identification and characterisation of health and safety risks, including the exposure of personnel to chemicals, biological hazards and radiation
 - Description of working methods to minimise hazards and control risks
 - List of the types of work for which a work permit is required.
 - Personal protection equipment.
 - Presentation of the medical facilities at Project Areas:
 - Healthcare centre, medical equipment and allocation of medical staff

-
- Medical acts that can be carried out on-site
 - Ambulance, communications
 - Referring hospital
 - Evacuation procedure for medical emergencies.
 - Description of the internal organisation and action to be taken in the event of an accident or incident.
 - 8. Training plan**
 - Basic training for non-qualified staff
 - Health & safety training
 - 9. Labour Conditions**
 - Description of Human Resource Policy for construction works of direct and indirect workers
 - 10. Local recruitment**
 - Local labour requirements:
 - Job descriptions and the levels of qualifications required
 - Recruitment procedure and deployment schedule
 - Initial training to be provided by the Contractor for each job description
 - Location and management of the local recruitment office(s)
 - 11. Traffic Management Plan**
 - Description of the fleet of vehicles/machinery used for the execution of the works
 - Deployment (Project Area & schedule) and maintenance sites for each vehicle and machine
 - Mapping of itineraries, travel times, and areas where speeds are limited
 - Dust suppression:
 - Mapping or road sections where dust reduction initiatives apply
 - Water points identified or to be created for refuelling tanker trucks
 - Capacity of the tanker trucks used and calculation of the number of trucks required
 - Width of the track to determine if one watering run or equivalent is adequate (narrow track) or if two runs are required (wide track)
 - Number of watering or equivalent operations proposed per day depending on the climate
 - 12. Dangerous products**
 - Inventory of dangerous products per Project Area and per period

-
- | | | |
|--|---|--|
| | ➤ | Transport and storage conditions and chemical incompatibility |
| 13. Effluents | ➤ | Characterisation of effluents discharged to the receiving environment |
| | ➤ | Facilities for the treatment or pre-treatment of effluents |
| | ➤ | Measures for reducing the sediment content of rainwater runoff |
| | ➤ | Measures for monitoring the efficiency and performance of facilities for reducing sediment content of rainwater runoff |
| | ➤ | Resources and methods for monitoring effluent and rainwater runoff quality |
| 14. Noise and vibrations | ➤ | Estimation of the frequencies, duration, days of the week and noise levels per Project Area |
| 15. Waste | ➤ | Inventory of waste per Project Area and per period |
| | ➤ | Collection, intermediate storage, handling and treatment methods for ordinary or inert waste |
| | ➤ | Storage and handling methods for dangerous waste |
| 16. Clearing and revegetation | ➤ | Methods & schedule for clearing vegetation and earthwork activities |
| | ➤ | Methods, species and schedule for the revegetation of Project Areas disturbed by the works |
| 17. Biodiversity | ➤ | Schedule for adequate fauna and flora management |
| | ➤ | Measures for minimizing impact on fauna and flora species based on the Contracting Authority procedures |
| | ➤ | Measures for monitoring the efficiency and performance of the plan in place |
| | ➤ | Measures for limiting IAS |
| | ➤ | Measures for monitoring the efficiency and performance of the plan in place |
| 18. Prevention of erosion | ➤ | Location of zones suffering from erosion |
| | ➤ | Methods and schedule for the implementation of anti-erosive actions, including topsoil storage |
| 19. Documentation on the Project Area condition | ➤ | List and cover of viewpoints |
| | ➤ | Imaging method |
| | ➤ | Archiving photographs |
| 20. Rehabilitation | ➤ | Method and schedule for Project Area rehabilitation |

21. Appendices

- Environment Protection Plans (number and location specified in Section 6 “Project Areas” above):
 - Marking out of the Project Area perimeter on a map
 - Definition of zones for vegetation clearing, zones for the storage of usable timber, zones for burning of green waste
 - Definition of on-site activities: construction, storage areas, accommodation areas, offices, workshops, concrete making units
 - Layout of activity areas on the Project Area: construction works, production/operation areas, rehabilitation and closure
 - Zones for the storage of topsoil, spoil from earthworks, materials
 - Access routes and checkpoints
 - Project Area occupancy schedule
 - Organisation of Project Area preparation
 - Liquid discharge outlet points
 - Proposed sampling points for monitoring water quality
 - Atmospheric emission outlet points
 - Location of the storage site for dangerous products
 - Location and mapping of waste treatment facilities when handled by an external service provider
 - Any other information relating to the environmental management of the Project Area
- Emergency plan:
 - Description of facilities
 - Characterisation of hazards
 - Emergency situations
 - Organisation structure - roles and responsibilities
 - Emergency procedures
 - Human and material resources
 - Triggering of the plan
 - Reporting

- Bailiff's sworn reports as specified in Sub-Clauses 10.5, 42.4 and 44.5 of the ESHS Specifications.

APPENDIX 2 – Properties rendering a product dangerous¹

- | | |
|---|---|
| 1. Explosive | substances and preparations which could explode in the presence of a flame or which are more sensitive to impacts and friction than dinitrobenzene. |
| 2. Combustive | substances and preparations which, when in contact with other substances, particularly inflammable substances, undergo strongly exothermic reactions. |
| 3. Easily inflammable | substances and preparations (i) in liquid phase (including extremely inflammable liquids), with a flash point below 21°C, or which can heat up to the extent of spontaneous combustion in ambient air; or (ii) in solid phase, which can burst into flames easily in the brief presence of a source of inflammation and which will continue to burn after the removal of the source of inflammation or (iii) in gaseous phase, which are inflammable in air at normal pressure; or (iv) - which, when in contact with moist air or water, produce dangerous quantities of gases which are easily inflammable. |
| 4. Inflammable | liquid substances and preparations, with a flash point equal to or above 21°C and less than or equal to 55°C. |
| 5. Irritant | non-corrosive substances and preparations which, when in immediate, extended or repeated contact with the skin and mucosa, can cause inflammation. |
| 6. Harmful | substances and preparations which, in case of inhaling, swallowing or cutaneous penetration, can lead to risks of limited severity. |
| 7. Toxic | substances and preparations (including highly toxic substances and preparations), which, in case of inhaling, swallowing or cutaneous penetration, can lead to serious, acute or chronic risks, and even death. |
| 8. Carcinogenic | substances and preparations which, in case of inhaling, swallowing or cutaneous penetration, can lead to or increase the frequency of cancer. |
| 9. Corrosive | substances and preparations which, in case of contact with living tissues, can destroy the latter. |
| 10. Infectious | substances containing viable micro-organisms or their toxins, for which it is known or we have good reasons to believe that they cause disease in humans or other living organisms. |
| 11. Harmful to reproduction function | substances and preparations which, in case of inhaling, swallowing or cutaneous penetration, can induce or increase the frequency of undesirable non-hereditary effects in offspring or have a negative effect on reproductive functions and abilities. |

¹ Source: French Environment Law (Code de l'environnement) / Articles R541-8.

- | | |
|--|--|
| 12. Mutagenic | substances and preparations which, in case of inhaling, swallowing or cutaneous penetration, can lead to hereditary genetic disorders or increase the frequency of these disorders. |
| 13. React with water | substances and preparations which, in case of contact with water, air or an acid, release a toxic or highly toxic gas. |
| 14. Sensitising | substances and preparations which, in case of inhaling or cutaneous penetration, can lead to a hypersensitisation, so that renewed exposure to the substance or preparation will cause characteristic harmful effects. This property can only be considered if test methods are available. |
| 15. Ecotoxic | substances and preparations with inherent or potential immediate or deferred risks for one or several environmental components. |
| 16. Dangerous for the environment | substances and preparations which are likely, after elimination, to lead to another substance, by any means, e.g. a lixiviation product, with one of the above characteristics. |