

CONTRACTOR ENVIRONMENTAL HEALTH AND SAFETY PLAN (CEHSP)

PROJECT: PLANT, DESIGN INSTALLATION AND PROCUREMENT OF THE CONSTRUCTION AND REHABILITATION OF MV LINES FOR DISTRIBUTION NETWORK IN KIGALI CITY.



FINAL REPORT

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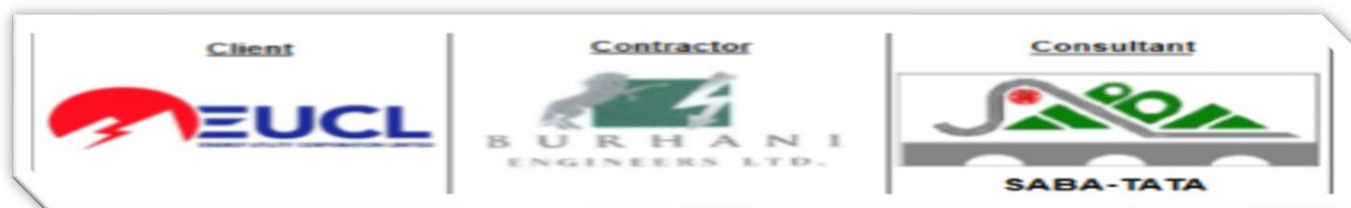


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ACRONYMS

CBCM	: Community Based Complaints Mechanism
CM	: Construction Manager
DRF	: District Recycling Facility
EHSMS	: Environmental, Health and Safety Management System
CEHSP	: Contractor Environmental Social Health and Safety Plan
ESCP	: Environmental & Safety Compliance Program
ESHS	: Environmental, Social, Health and Safety
ESIA	: Environmental and Social Impact Assessment
EHS	: Environment Health and Safety
EUCL	: Energy Utility Corporation Limited
GoR	: Government of Rwanda
HIPP	: Heat Illness Prevention Program
HAZCOM	: Hazard communication
HAZID	: Hazards identification
(same as above) IFC	: International Finance Corporation
JSAs	: Job Safety Assessment
MININFRA	: Ministry of Infrastructure
MSDS	: Material Safety Data Sheet
OHSA	: Occupational Health and Safety Administration
OPs	: Operational Policies
PLC	: Project Life Cycle
PPE	: Personal Protective Equipment
PPG	: Personal Protective Grounding
PS	: Performance Standard
RESSP	: Electricity Sector Strengthening Project

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RDB	: Rwanda Development Board
REMA	: Rwanda Environment Management Authority
REG	: Rwanda Energy Group
SWEAP	: Safe Worker and Environmental Awareness Program
WB	: World Bank
WBG	: World Bank Group
WMP	: Waste Management Plan

Chapter 1. INTRODUCTION

1.1 PROJECT OVERVIEW

Kigali is currently experiencing a rapid increase of power demand for the last 20 years due to different development activities that are growing in the City. Rwanda Energy Group is in the process to increase the power supplied in Kigali City and its environ through construction of new and rehabilitation of the existing electrical networks within the City.

The refurbishment of the existing electricity infrastructures will not only be able to satisfy the increasing demand, but also to have a reliable power with flexibility of operations by providing a stable and reliable power supply and participate actively in Economic development of Rwanda. It is in this aim that REG has initiated a project for “**Construction and rehabilitation of MV lines for Distribution Network system strengthening to improve service reliability and Voltage stability within Kigali city**”.

1.2 PROJECT SCOPE

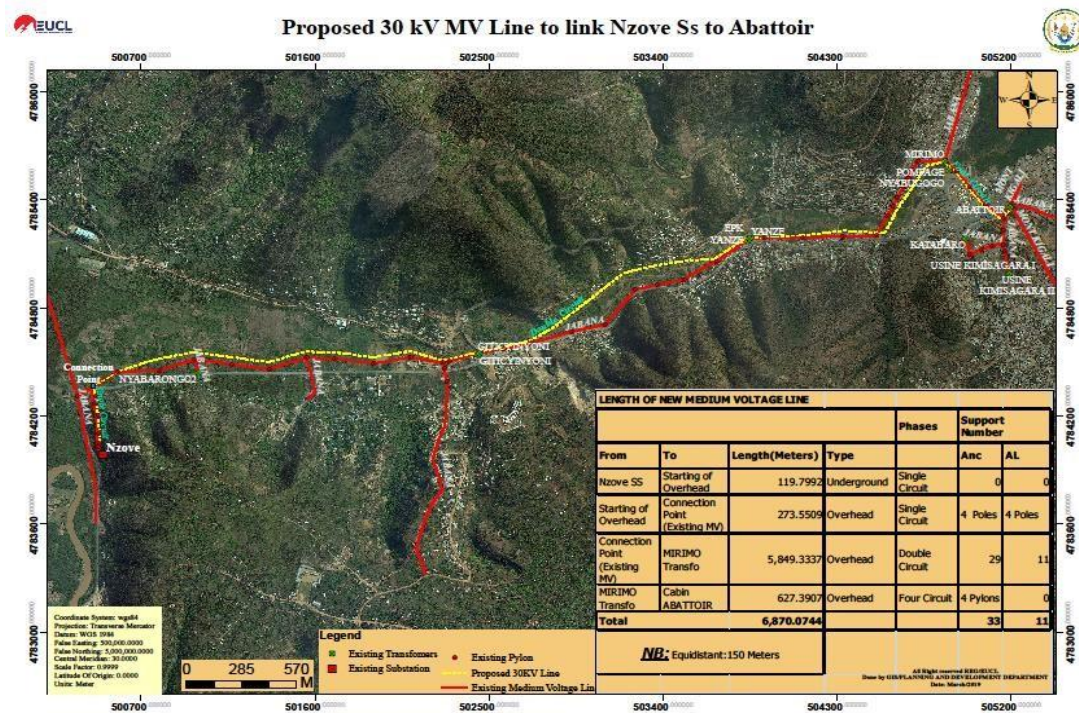
The scope of project work includes all designs works, supply of all required material, installation and civil works for the construction of the following Medium Voltage line:

i. Upgrade of Medium Voltage overhead line from Nzove substation to Abattoir Nyabugogo

- Construction of a 4.7km double circuit line along existing overhead line as shown on the map;
- Construction of a 0.5 km four circuit line from the double circuit to Abattoir cabin (only 3 circuit will be equipped)
- Supply and installation of a 400kVA transformer (mounted on tower) and related accessories;
- Supply and installation of MV 240mmsq copper cables and cable accessories to link new lines with the substations on both side
- Shift conductors of the two feeders, Kigali North and Nyamirambo to new erected end tower;
- Addition of one angle poles on the line from Nyamirambo and installation of end poles one for the line towards Kimisagara Water Pumping Station and the other towards Inkundamahoro Commercial building;

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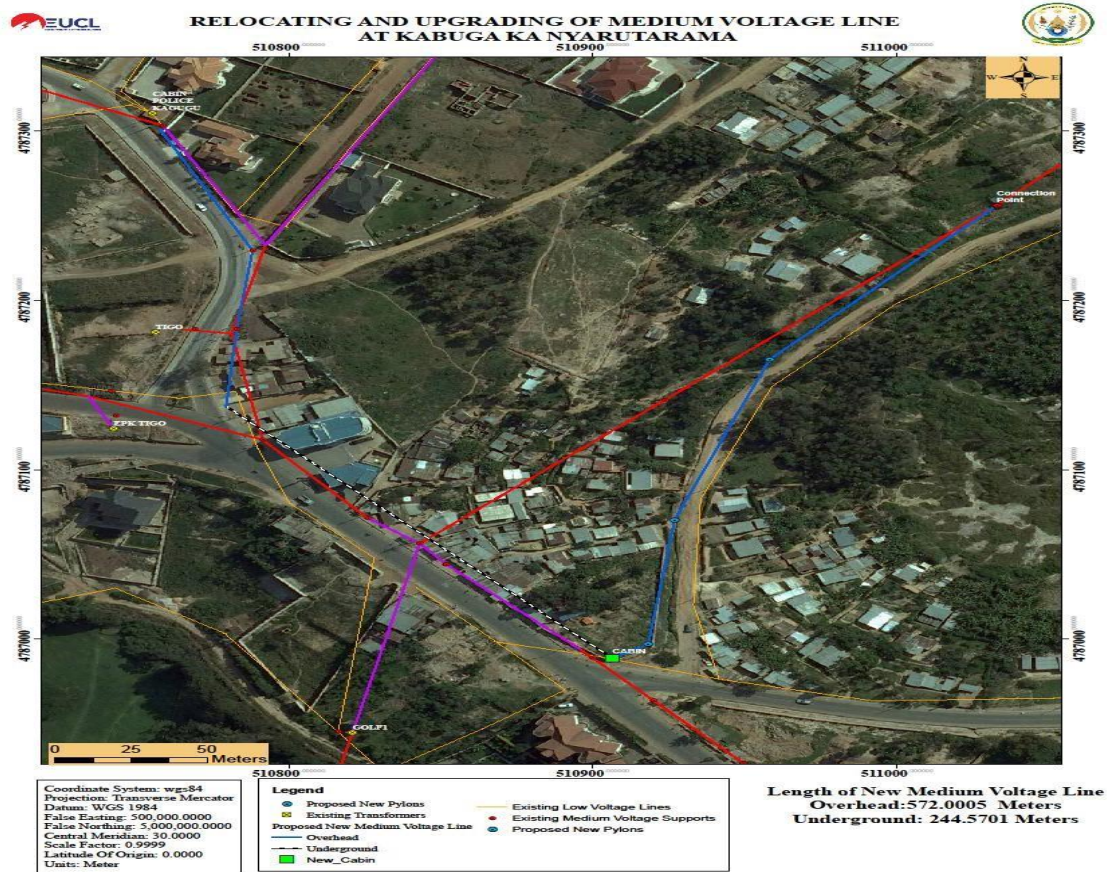
- Relocation of exiting MV line tapping from old to the new constructed line, this includes 2 MV lines and 4 distribution transformers.
- Dismantling of exiting MV line from Nzove Substation to abattoir and transport of the dismantled materials to EUCL store in Kigali.



Indicate the source and time of production of the map

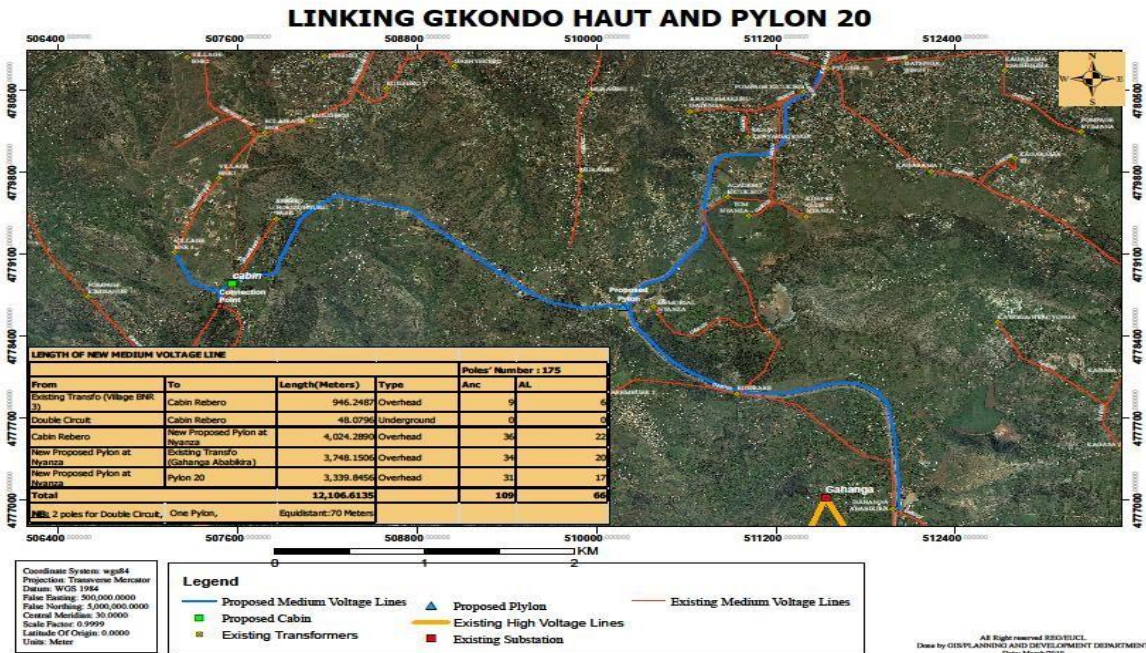
ii. Upgrade of MV underground line at Kabuga ka Nyarutarama

- Deviation of a section of MV line from Kinyinya (350 m of deviation);
- Replacement of a section of 450 for the feeder Kagugu;
- Dismantling and transport to EUCL stores of the existing materials of the upgraded Line



iii. Construction of Medium Voltage overhead line Nyanza -Rebero

- Construction of MV line from Rebero New Cabin and tapping to the existing Pylon 20-Gahanga line.
- Erection of one Dead end pole and laying 120mmsq copper cables towards the new Rebero cabin;
- Extension of Gikondo Haut by 570 m in order to be linked to the new cabin
- Relocation of exiting MV line tapping from old line to the new constructed line
- Dismantling of exiting MV line from Gahanga to Kicukiro District and transport of materials to EUCL store in Kigali



iv. Upgrade of MV line from Samuduha to Kanombe airport

- Replacement of a section of around 600 m of existing overhead line by a double circuit overhead line;
- Laying 120mmsq underground copper cable (and in respect of guideline of laying MV cable as specified) from SAMUDUHA to Kanombe and from SAMUDUHA to Rubirizi (RAB)
- Connect new upgraded line to existing line and cabins
- Dismantling and transport of material of exiting MV overhead line up to EUCL store in Kigali

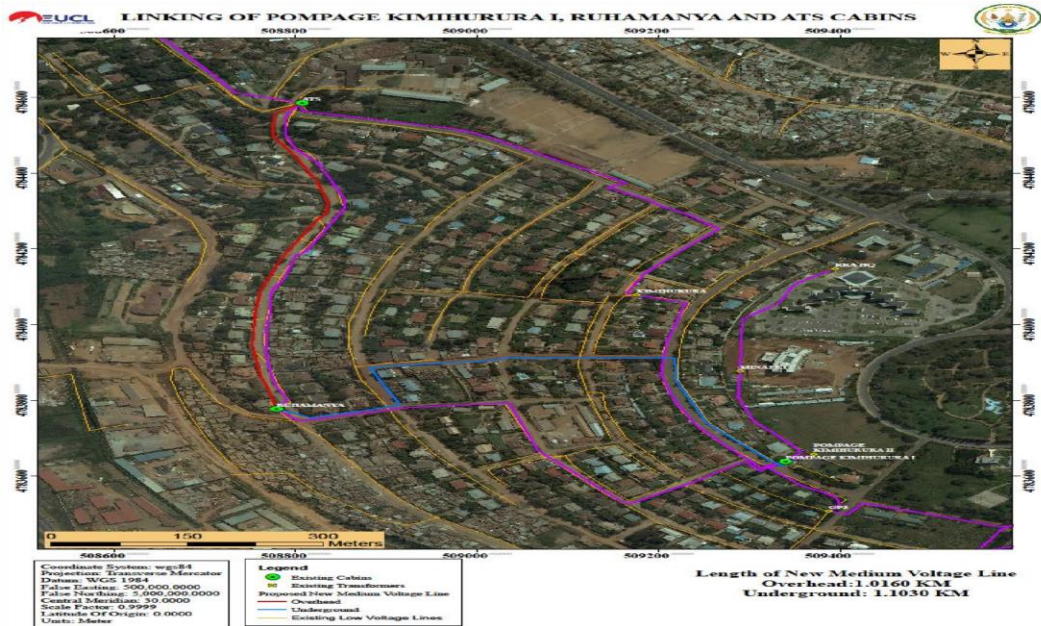


v. Extension of MV line at Remera Controle Technique in order reinforce nearby MV line

- Construction of 430 m of MV line as shown on the map;
- Supply and installation of 400kVA, 15/0.4kV distribution transformer with all accessories (Disconnect switch with fuses, LV distribution box, LV cables, and earthing)

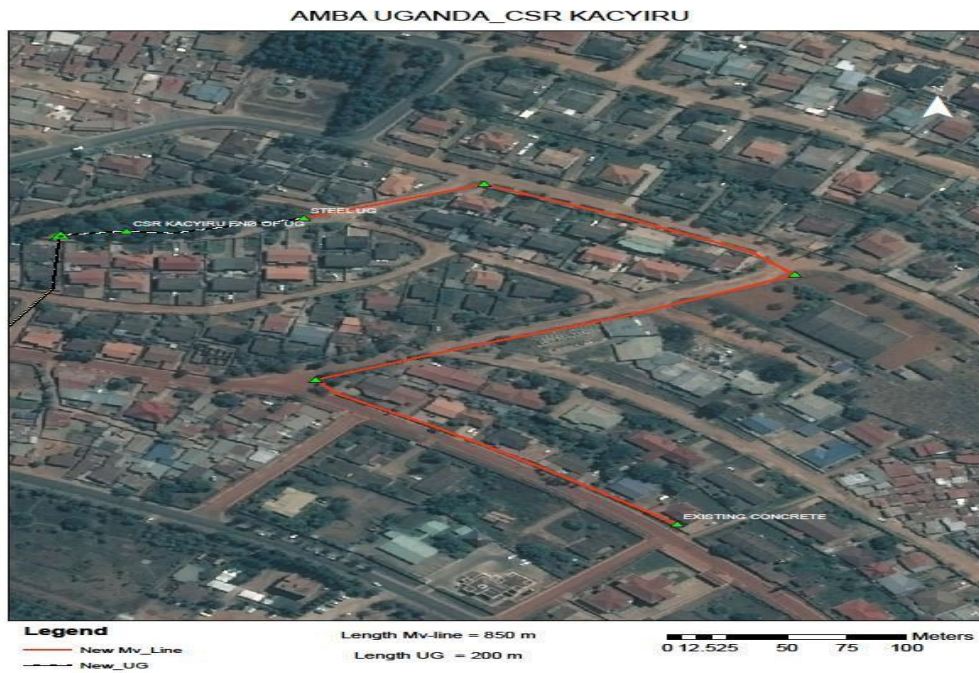
vi. Upgrade of MV line in Kimihurura/Ruhamanya/ATC

- Replacement of MV underground with 120mmsq, copper cable from Pompage Kimihurura to Ruhamanya;
- Construction of 1 km line from Ruhamanya to ATC cabin
- Cut and repair roads to original state of all damages along the line route as specified in the tender document;
- Connection of new upgraded line to existing MV switching substations



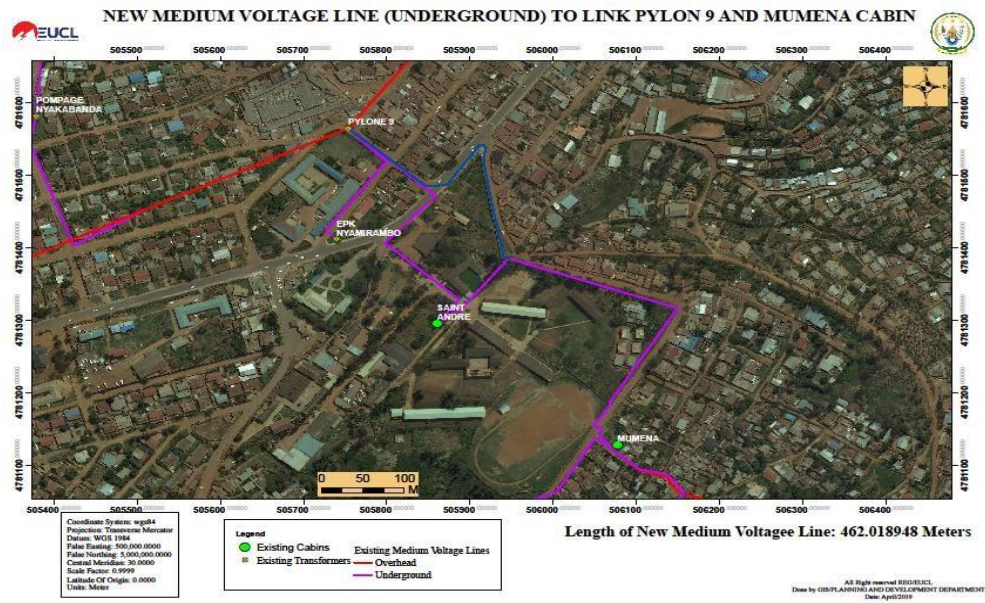
vii. **Extension of MV line from AMBA UGANDA to CSR Kacyiru switching substation**

- Construction of 430 m of MV line as shown on the map;
- Supply and installation of 400kVA, 15/0.4kV distribution transformer with all accessories (Disconnect switch with fuses, LV distribution box, LV cables, and earthing)



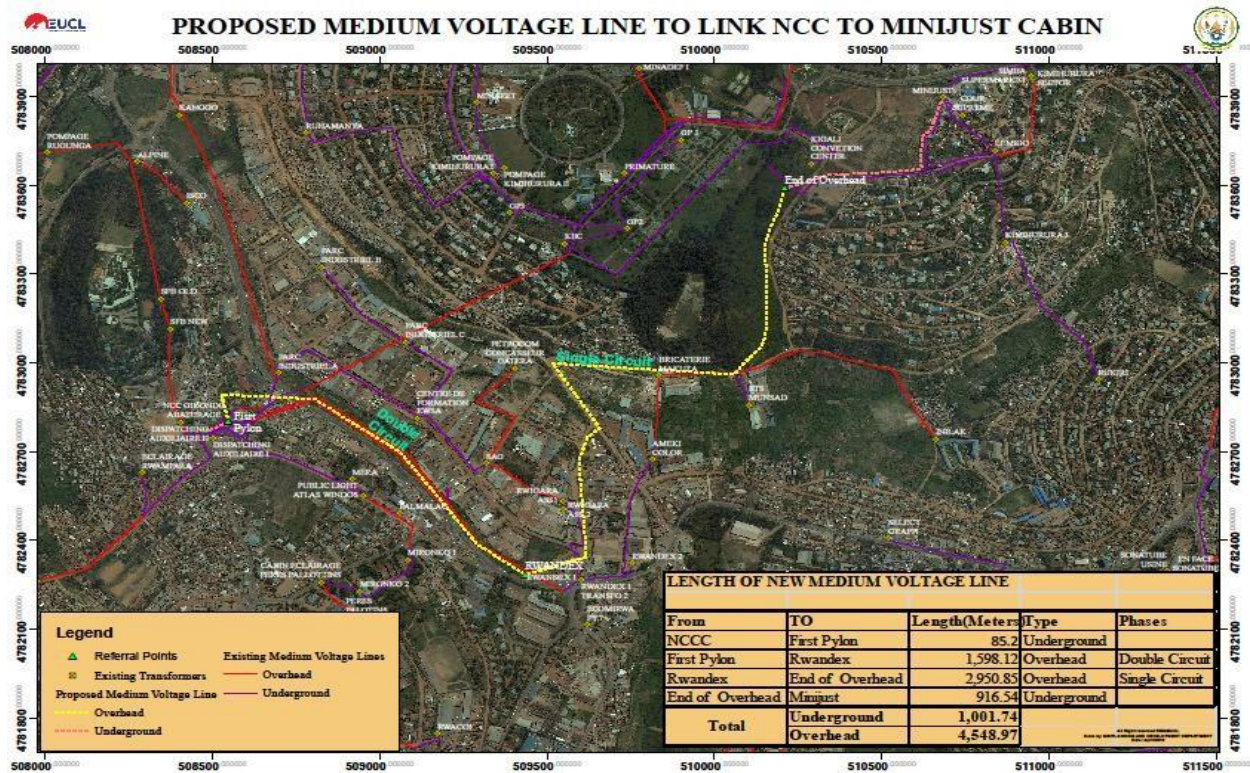
viii. Replacement of MV underground line between Saint André and nearest pylon in Nyamirambo

- Laying MV cable 240mmsq between Saint Andre Nyamirambo and nearest tower as indicated on the map;
- Connection of new MV cable with existing 240mmsq copper cable;
- Cut and repair roads and restoration to normal surface all damages



ix. Reinforcement of distribution network in Kimihurura (Gikondo-Rwandex-MINJUST)

- Construction of a double circuit line for a section from Gikondo NECC to the tower at Rwandex, 1600m; for the two circuits one will be used as Parc industrial feeder and will be extended up to MINJUST, the other will be used as Gasogi feeder;
- Construction of a single circuit line section Rwandex to Minijust, 3,000m; MV underground cable 240mmsq for a section of 1,000 from the end the line to MINJUST substation;
- Lay new MV cable, 240 mmsq for Parc industrial feeder and Gasogi feeder;
- Link the new upgraded line to existing line of Gasogi;
- Installation of MV underground copper cable 240mmsq cable with civil works as described in the document from end pole near Kigali Convention Centre to MINUJUST and connection on both ends.
- Installation of MV underground copper cable 240mmsq cable from indoor GIS at Gikondo to the first double circuit tower and connection on both ends cables
- From the existing masonry fence to the indoor GIS, MV cables will be laid into a reinforced concrete cable trench and covered with concrete cover.
- Dismantling the upgraded section of Gasogi feeder and the line from Gikondo NECC to Aggreko.



Chapter 2. PROJECT ACTIVITIES

The project shall have different activities which shall be carried out in for different phases namely pre-construction, construction, testing, operation and decommissioning phases.

The activities of the project include but not limited to

- Site clearance and earthworks
- Excavation to remove unsuitable materials
- Electrical cables laying and stringing
- Backfilling the excavated cable trenches with approved materials as specified
- Improvement/construction of drainage facilities
- Repairs and/ construction of damaged roads
- Towers and poles erection for the overhead lines
- Cables stringing
- Garden reparation

2.1.Activities during Pre-construction investigations

The activities of the pre-construction phase will start with detailed investigation of the site's biological and physical characteristics in order to minimize any unforeseen adverse social and environmental impacts during the project cycle. This phase also entails mobilization of labor force, equipment as well as acquisition of various permits as required by the law. The investigation of the sites intervene to develop a baseline data bank that shall guide in impact monitoring. The main activities to be involved in the pre-construction phase include:

- Line surveys;
- Maps reproduction
- GESS-technical investigation (soil test) where applicable;
- Materials analysis including soil, stones and sand tests;
- Mobilization of the labor and equipment's
- Permit acquisition if necessary
- Preparation of site-specific safeguards instruments (ESMP and EHSP);
- Preparation of the detailed risks assessment. As the following table:

N o	Hazard identificati on	Associate d risks	Persons at risk	Existing control	Likeliho od	Severi ty	Curre nt risk rating	Comme nt and actions
1	Traffic accident	-Injuries and disabilitie s -Fatalities	-Workers - Commun ity members	-Safety Signage and posters - Sensitisation	Yes	Mediu m	2	
2	Fall from the Height and falling objects	Injuries and disabilitie s -Fatalities	workers	PPE and Safety tools	Yes	Mediu m	3	
3	Fire accident	Injuries and disabilitie s -Fatalities	-workers - Commun ity members	-Safety tools - Clear communicat ion tools and method statement	yes	low	5	
4	STDs transmissi on	AIDS and other related diseases Sero- positivity increasing and communit	-workers - communi ty members	- Sensitisation - Distribution of Condoms	yes	low	5	

		y health disturban ces						
5	Electrocuti on	Long term disabilitie s and diseases	-Workers - Commun ity members	- Respect of clearance guidelines - Safety equipment and tools	Possibly	low	5	

Severity: **low, Medium and High**

Rating: **1 to 5 (Low to high)**

2.2. Activities during construction phase

Staffing and employment

This project will be the most source of job creation for local community, skilled and unskilled people. It will generate a number of jobs since it is expected to employ a maximum of more than 100 employees in total and this number will be attained when the project is fully operating.

i. Site preparation

Manpower will be used to clear the project site and trenches excavation and trucks and other machinery will be used to transport materials and personnel to the project sites. The indicated place where excavation will take place for the overhead lines will be rehabilitated and restored accordingly.

ii. Sourcing and transportation of construction materials

Construction materials and other equipment (cross arms, cables, stubs, transformers, wires, aggregates, stones, sand, bricks, cement etc.) will be transported by trucks to the construction sites and greater emphasis will laid on procurement of local materials.

iii. Storage sites

The project is expected to have only one temporally storage site for material and machinery parking as it will be implemented by one contractor. The selection of the location will be made based on the availability of adequate land for establishing the storage site, including parking areas for machinery, stores and easy access to working site and an appropriate distance from environmental sensitive areas. Some of the materials from borrow pits like sand and stones will be used directly after delivery and as such no piling up is expected. Other materials like aggregates and sand will be stored at the operation site ready for use. Cement will be stored in special storage rooms. No Fuel will be stored in the project area since all machinery will use the approved petrol stations in the area.

Storage of materials: the storage will be properly made to avoid any soil/ water contamination or environmental pollution. Bulky materials such as rough stones and sand will be brought to site only when needed due to space constraints. To avoid stacking large quantities of materials on site, the contractor should order bulky materials such as sand, gravel and stones at crusher& asphalt plant sites.

iv. Excavation and foundation works

Excavation will be carried out to prepare the cables trenches and tower legs and poles. The excavated soil will be re-used to backfill the excavated trenches after cable laying as well as backfilling the tower/pole legs after election.

v. Overhead cable indicators

Permanent overhead cable indicators shall be installed along a cable route in order to mark the location of cables. The average distance between two indicators shall not be more than 300m.

Demolition works

Any wastes or debris arising from any demolition works will be transported to their respective site disposals.

vi. Landscaping

To improve the aesthetic value or visual quality of the sites once construction ceases, the contractor will be required to restore the damaged areas. The landscaping will include establishment of roadside tree planting, backfilling and revegetating of abandoned quarry sites. Some sections of the road will have to be landscaped as construction proceeds to reduce erosion.

vii. Underground activities arrangements**Organization of works**

Work will be performed sometimes in the vicinity of energized lines. During the construction and installation, the contractor must use methods in order to reduce to the minimum the need to de-energize the lines, furthermore when crossing high voltage lines the contractor will use methods which avoid de-energizing the high voltage lines. The Contractor shall make provisions to be able to shift teams and equipment in order to continue work at other sites if the shut-down cannot be granted for the requested period at the requested dates. He shall be able to resume the works scheduled during shut-downs when they are granted, with a reasonable advance notice. The required interruptions shall be kept to a minimum in terms of length of the shut-down.

Tarmac roads crossing

Works of road crossing will include:

- Removal of existing asphalt;
- Demolishing of existing pavement structure of the road;
- Excavation up the required level;

Cables will pass in a reinforced service pipe with inner diameter of at least 80 cm with manhole on both side of the road; manholes will be covered by a manhole cover made in ductile iron material.

- The reinforcement concrete pipe will be laid on a concrete base of class C25-30 with a minimum thickness of 10cm
- Backfill will be done using lateritic material and other approved rehabilitation material
- Each circuit will have its own pile and manholes

Burn bricks and Warning tape

Warning tape will be laid at a depth of 300 mm between the cable and warning tape for MV underground cables. Burnt bricks will be laid along MV underground cables in order to protect the cables. Estimates of brick to be laid per linear meter are 36.

viii. Occupation health measures for workers and the general public

During project implementation, some diseases and work accidents may occur. For this matter, health and safety measures must be observed and respected. These include but not limited to the following:

Personal Protective Equipment (PPE)

- ✓ The use of appropriate personal protective equipment (PPE) such as **masks, helmet, hand gloves, reflector safety jackets, Eye protectors, protective boots** etc, have to be mandatory for all site workers during project implementation.
- ✓ Workers will be trained on proper use of personal protective equipment (PPE) regardless of their prior working experience elsewhere.
- ✓ Workers have to be informed and sensitized on the relevance of using adequate PPE.
- ✓ First aid equipment will be made available and staff will be trained on their use.
- ✓ Warning notice (**signage, safety ribbon and posters**) will be put on working site for the safety of workers and persons passing nearby, this include toolbox and safety meetings, community awareness via local Authorities, social media (twitter, WhatsApp, Facebook, Instagram, radio and TV, online newsletters,
- ✓ Power cuts will be communicated one week prior to their execution.
- ✓ Full respect of COVID-19 preventive measures, basically: wearing correctly a face mask, social distancing (at least 1.5m), hand washing with clean water and soap or hand sanitizing, temperature recording and provision of temporal isolation room at site

All requirements contained in the detailed chapters of this CEHSP shall be respected and be implemented as planned

ix. Wastes Generation and Management

The proposed project shall generate a substantial amount of waste both degradable and none degradable. The contractor should provide facilities for handling them by providing adequate waste management facilities like dust bins, and mobile toilets will be made available on site where applicable. Storm water from the project area shall be channeled into the storm water drainage system with consideration of downstream effects. A contract with certified waste handlers will be signed prior to regular waste transportation to central Nduba Landfill.

2.3 Operation phase

The operation phase is made of power distribution and maintenance of the lines when deemed necessary. No major activities are expected to be carried out during the operation phase. Maintenance will include replacement of old and/ or damaged materials, activities which are considered not to be harmful to the environment. For all operators, safety equipment and tools will be in place and in use in proper and systemized mode.

2.4 Project activities closure

Upon completion of the works, the contractor shall remove all of its tools, materials and other articles from the construction area. The Contractor shall also clean areas where he worked, remove foreign materials and debris resulting from the project activities and shall maintain the site in a clean, orderly and safe condition. Materials and equipment shall be removed from the site as soon as they are no longer necessary to minimize the demobilization work after completion of the project. Before the final inspection, the site shall be cleared of equipment, unused materials and rubbish so as to leave the area aesthetical clean. Borrow pits and other spaces of excavations will be rehabilitated with backfilling and re-vegetation with appropriate grasses and trees to avoid risks of erosion and further landslides.

2.5 CEHSP OBJECTIVES

To provide a workable model to the site in striving to achieve the goal of BURHANI – Zero lost time due to injury / accident. We propose to achieve this by incorporating the safety requirements in all the company procedures and by maintaining a safety culture in the day-to-day work life of the employees.

In addition to the prevention of accident to the employees, suitable measures have been included to prevent all sort of incidents, which may result to injuries on the general public and damages to their properties to ensure total compliance with OSHA requirements

On behalf of implementation of this project, the contractor Environmental, Health and Safety Plan aim specifically to:

- Promote a safe working environment which is free from recognized hazards to workers, the environment and the public. Commit resources to detect hazards and ensure hazards correction.
- Achieve an incident-free project by advocating the belief that all incidents are preventable. Encourage consultants and contractors selected to work on this project to share and promote that same belief.
- Verify that safety policies and procedures are in place to assure worker and public health and safety as well as to promote natural capital.
- Ensure waste management and clearness environment.
- Enlist employee involvement with project safety to improve the quality of safety and health. This includes brainstorming, inspecting, detecting and correcting, from project startup to project completion.
- Ensure that all employees, consultants, and contractors have the knowledge, awareness, and training to accomplish the task ahead
- Implement emergency response plans and procedures. Provide effective project communication plans and equipment.

Chapter 3. RESPONSIBILITIES

3.1 Health and Safety Team

BURHANI ENGINEERS Safety team is to work with the larger project team, and our partnering Contractors and consultants, to identify and minimize safety risks throughout the project. This will be accomplished by ensuring the proper systems and procedures are in place in advance of construction and that, during construction, project personnel are following safe work practices as determined by applicable National and Company rules and regulations and job safety analyses (JSAs). The Project Safety team will draw upon expertise as required from BURHANI ENGINEERS, Safety team, BURHANI ENGINEERS's construction & operations departments, Contractor's operations and safety personnel, and OSH consultation services and reference to Burhani Engineers' Safety policy and Code of Conduct (files available).

The Project Safety team's main areas of responsibility include:

- Arranging for BURHANI ENGINEERS's Employee Safety Training as needed
- Ensuring Safety Awareness presentations are administered for all Project personnel
- Identifying and acquiring Personal Protective Equipment (PPE) for BURHANI ENGINEERS 's employees
- Reviewing of Contractor Safety Programs
- Inspecting and auditing Contractor field operations for compliance with safe operating procedures. Reporting deficiencies to Construction Manager
- Ensuring project personnel comply with the project Fire Plan
- Reviewing Site Security requirements and implementing necessary protocols
- Ensuring adequate Communications are in place
- Monitoring and reporting on BURHANI ENGINEERS , Project Safety Metrics
- Ensuring Incident Notification, Investigation, & Reporting is effective
- Providing Safety & Training Records
- Coordinating Emergency & Disaster Response Procedures
- Ensuring Company Safety Compliance Requirements are met in accordance with the Environmental & Safety Compliance Program (ESCP). ESCP provides the framework for effective compliance programs in order to protect BURHANI ENGINEERS's employees

and the environment in general. This includes initial and annual training as well as training upon transfer to a new department or job description.

- Regularly attending and participating in employer's daily safety/tailboard meetings.

3.2 Project Base (Base)

Project Base is located at BURHANI ENGINEERS's Kigali Head office. Its responsibilities include:

- Overseeing all construction field activities
- Providing and/or coordinating emergency response
- Making required notifications and formally document events
- Perform routine training in various emergency scenarios

3.3 EHS Sub-contractor or Permanent EHS Engineer

A Subcontractor or Permanent EHS Engineer to be retained as an owner's agent in support of the project's environmental, Health, safety and construction management requirements.

His responsibilities with respect to safety include the following:

- Provide safety expertise and support as requested by BURHANI ENGINEERS.
- Review Contractor safety submittals.
- Provide field safety advisors as requested to augment the efforts of BURHANI ENGINEERS's safety team.
- Immediately report all incidents, unsafe work practices, security breaches or and third party complaints/concerns to BURHANI ENGINEERS.

3.4 Project Manager

BURHANI ENGINEERS Project Manager has been assigned to lead specific areas of the Project, the overhead segment. The Project Manager has the following general responsibilities with respect to safety:

- Monitor construction of the entire project, including safety performance.
- Establish and maintain safe and secure site facilities for use by BURHANI ENGINEERS and EHS Engineer/subcontractor.

- Assure all contractual requirements, including safety & health obligations and daily reporting, have been met by each S/Contractor and sub-Contractor on the Project.
- Act on any safety related issues brought forward for resolution by the safety team,
- Report any Contractor safety deficiencies and associated corrective action plans to the BURHANI ENGINEERS Project Director.
- Ensure that the Contractor is taking adequate security precautions to protect the Project from risk related to associate environmental, health and safety and noncompliance concerns.

3.5 Contract Administrator

The Contract Administrator will:

- Always be alert to site safety issues.
- Consult with Contractor's foreman regarding any safety concerns.
- Not hesitate to request assistance from the Safety Team on issues that are not resolved to his/her satisfaction.

The Contract Administrator is also responsible to:

- Verify that the Contractor has provided equipment and material necessary to prevent starting any fire
- Control spread of fires if started, and Provide assistance for extinguishing fires started as a result of distribution lines construction activities.
- Report any security concerns to the project security team for investigation and resolution.

Chapter 4. CONTRACTORS AND SUBCONTRACTORS

At a minimum, every subcontractor will establish, implement and maintain an Effective Injury and Illness Prevention Program (IIPP) in accordance with this EHS, BURHANI ENGINEERS rules of the General Industry Safety Orders.

The following elements are required in the IIPP:

- Management commitment/assignment of responsibilities;
- Safety communications system with employees;
- System for assuring employee compliance with safe work practices;
- Regularly scheduled inspections/evaluation system;
- Accident investigation;
- Procedures for correcting unsafe/ unhealthy conditions;
- Safety and health training and instruction; and
- Recordkeeping and documentation.

Every Subcontractor shall adopt a written Code of Safety Practices which relates to the employer's operations. BURHANI ENGINEERS and Subcontractors will implement a Heat Illness Prevention Program (HIPP) in accordance with OSH provisions.

Periodic meetings of supervisory employees will be held under the direction of management for the discussion of safety problems and accidents that have occurred. Supervisory employees will keep conducting safety meetings with their crews at least every 6 working days and daily morning briefings to emphasize safety. Squad leaders to compulsory conduct “**toolbox**” or “**tailgate**” meetings with their respective crews each day prior to commencing work.

The closely follow-up meetings will typically cover a job task, Job Safety Analysis (JSA) and ensure that all Squad members are aware of potential hazards associated with the work to be performed and safety measures to mitigate those hazards.

Chapter 5. COMMUNICATIONS

Health and Safety is absolutely critical for the employees working on the 30 kV overhead & underground MV lines construction and Rehabilitation Project portion. Effective communications are necessary to ensure everyone's safety through information sharing and direct rescue service when an incident and or accident occurred.

Chapter 6. COMPLIANCE WITH SAFE WORKING PRACTICES

6.1 Project Safety Orientation

Compliance begins with awareness and training. All project personnel must attend the Safe Worker and Environmental Awareness Program (SWEAP) orientation. Electrical Fire safety training will be provided as part of this orientation. The SWEAP training roster is maintained by the EHS Engineer/Consultant/Subcontractor. As an efficient overlook, a hardhat sticker shall be affixed to each worker's hardhat showing they have completed this orientation. The Key elements of the SWEAP orientation are included in a SWEAP Visitor Form to be reviewed and signed by personnel making short term, non-construction related visits to the project right of way.

6.2 Employee Safety Training

BURHANI ENGINEERS' employees must complete all training designated as part of the annual Environmental and Safety Compliance Program (ESCP). All ESCP training will be monitored on the Employee Training Matrix and entered into the **MIS/MyInfo** training Module. Some training is identified for BURHANI ENGINEERS employees based on specific OSH/EHS requirements, such as Heat Illness Prevention and First Aid programs.

Depending on the specific job hazards anticipated for each employee, various training is assigned. Training records are documented by a sign-in sheet and entered into the training Module for all BURHANI ENGINEERS employees.

For ease of tracking, a training matrix is maintained showing all required “**R**” and Completed “**C**” classes. The training matrix is frequently updated with the most current version available on the Project SharePoint site.

6.3 Hazard Communication Program (HAZ-COM)

The Haz-com program provides employees with information and training on hazardous Substances in the workplace. This Hazard Communication Program does not apply to employees who use consumer products except when consumer products are used in a duration and frequency of exposure greater than normal consumers' experience.

6.4 Contractor/subcontractor Safety Training

Contractors and subcontractor are responsible for documenting and maintaining all training records and safety meetings for all employees and making them available to BURHANI ENGINEERS technical department upon request and regularly (daily, weekly and monthly) as planned and agreed.



Chapter 7. FIRE SAFETY

The Project direction and activities are located in part of residential urban areas, also with proximity to commercial buildings and other structures permanently using electricity. As a Construction and Rehabilitation project.

The Major Project Fire Responsible, who reports to the Major Projects Safety Lead, will be responsible for overseeing compliance with suggested approached and mitigation measures.

All project employees will follow the approved Fire Prevention diagram (to be familiarize during site staff safety meetings and briefings) and all Fire Emergencies will be coordinated with the prime construction Contractor. A partnership with national fire fighter department (at RNP) will be requested and initiated to ensure a strong coordination and a quick intervention to the same.

Fire safety and prevention measures will be taken to reduce the risk of fire ignition on the project. These measures include, but are not limited to:

-  Training of all project personnel on fire safety and prevention
-  Fire patrols and fire reporting

- ✚ Fire suppression tools & equipment requirement for work in high risk fire areas
- ✚ Implementing work restrictions during high or extreme fire conditions

Due to the nature of the project (Linear moving), Fire control Equipments will be maintained in all project vehicles and at all sites, and specific fire boxes as noted above or in fire boxes to be maintained at remote work locations or as an alternative to tools carried in vehicles at accessible work locations all users will be trained for a proper manipulation, use and basic checkup tips to ensure the quality of use. Equipment maintained in fire boxes will include the following (per Electric Standard Practices):

- Fire extinguisher
- Fire reflector jackets (in aluminium)
- 1 - Round point shovels 46” for each employee on site
- 1 - 5 mini-gallon backpack pump
- 2 – Pulaski’s or axes
- 2 – McLeod fire tools
- During “Elevated” fire conditions 1-5 gallon backpack pump with 10 mini-gallons of refill water is required per 3 personnel at the work site
-
-
- Include also the PTW (Permit-to-Work)and its use

Chapter 8. GENERAL CONSTRUCTION SAFETY

8.1 Job Briefing

The Contractor will have an all-hands safety briefing at the start of each work day wherever employees congregate.

This should include all personnel at the site including subcontractors, environmental monitors, and owner's representatives. In addition, the Contractor shall ensure that prior to starting any construction activity the foreman or employee in charge will call the crew and any other on-site personnel together for a "follow closely" or "Job Briefing." Each worker should understand:

- The purpose of the job.
- What he/she is to do?
- What the other members of the crew are to do.
- The intended manner of carrying out the job.
- Any environmental considerations identified and any measures to be taken to address them as per the ESMP in place.
- Potential safety hazards or trouble spots anticipated.
- How the employee in charge is proposing to overcome such problems.
- Evacuation procedures for weather, fire, fall, squeeze and other emergencies.

The employee in charge (Safety Committees), will encourage questions, comments and suggestions by the crew members. The briefing will continue until all crew members understand the job at hand.

If, during the course of the work, changes in procedure become necessary, all crewmembers will be called together so that the change can be properly explained and any questions are answered. If, during the course of the work new crewmembers or visitors show up to the jobsite, they will not enter the construction zone until first meeting with the foreman or his designee and receiving a full hatchback describing the work and hazards of the job.

8.2 Qualified and authorized to do work

Only those qualified and authorized to do the work will be allowed to perform any function on the Project.

• Competent Person

One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees and who has authorization to take prompt corrective measures to eliminate problems.

• Qualified Person

One who, by possession of a recognized degree, license, certificate or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work or the project.

• Authorized Person

A person approved or assigned by the employer to perform a specific type of duty or duties, or to be at a specific location or locations at the job site. All personnel operating vehicles or equipment must have the proper license or permit to operate it.

8.3 Job Safety Analysis or Job Hazard Assessment

A Job Safety Analysis or Job Hazard Assessment (JSA or JHA), is required for all construction activities. The results of the analysis will be shared at tailgate/hatchback meetings with all employees involved in that work.

8.4 Personal Protective Equipment (PPE)

All PPE will be furnished as needed by the workers' employer and a stock capacity for guests and visitors will be granted. Workers shall be familiar with the hazards of the job and wear PPE furnished to provide protection from hazards which cannot be engineered out of the work or otherwise mitigated through administrative measures. All personnel on any construction site must wear high visibility clothing or safety vest. PPE is considered as the last defense in providing for a worker's safety. PPE must be appropriate for the work at hand and worn properly by the worker involved. Project Managers, Field Safety Advisors, and Contract Administrators will monitor use of appropriate PPE on job sites and request Company/Contractor (BURHANI ENGINEERS) leadership to enforce the usual respective safety rules.

P.S: Any worker that will fail to wear and use PPEs, will be sanctioned accordingly including dismissal to the duty.

8.5 Awareness of Natural Hazards

There are several natural hazards in the vicinity of the project site, including rough terrain, remote worksites, dangerous species of cactus, and several species of rattlesnakes, black widow and desert recluse spiders, stinging or biting insects, ticks, and poisons, workers shall be reminded on and keep reflecting on the safe working requirements.

8.6 Prevention of Heat Illness

Heat illness is a potentially dangerous problem for those working outdoors during hot weather. All BURHANI ENGINEERS employees will abide by the Heat Illness Prevention Plan provided as, which includes Heat Illness Training, Drinking Water Requirements, Shade Requirements, and Heat Illness Emergency Procedures. All Contractors will have a Heat Illness Prevention Plan and will administer it per applicable national Rules and Regulations, as per National OSH Act.

8.7 Fall Protection

Prior to starting operations that require fall protection, a competent person will provide a fall protection diagram. The fall protection diagram include, but not be limited to, the following:

- ❖ Name of qualified person in charge of the operation,
- ❖ Description of work operation,
- ❖ List of fall exposures,
- ❖ Description of fall protection methods used to eliminate the fall exposures, and
- ❖ Training and enforcement methods used to ensure employee compliance with the diagram arrangement.

8.8 Rigging

Many types of cranes, hoists, and rigging devices are used for lifting and moving materials. Competent person(s)/responsible engineer must ensure all equipment is properly inspected and all workers are properly trained for the specific planned tasks.

From the prevention and risk control hierarchy, we adopted the most effective control practices to enhance the protectivity at our workplaces.

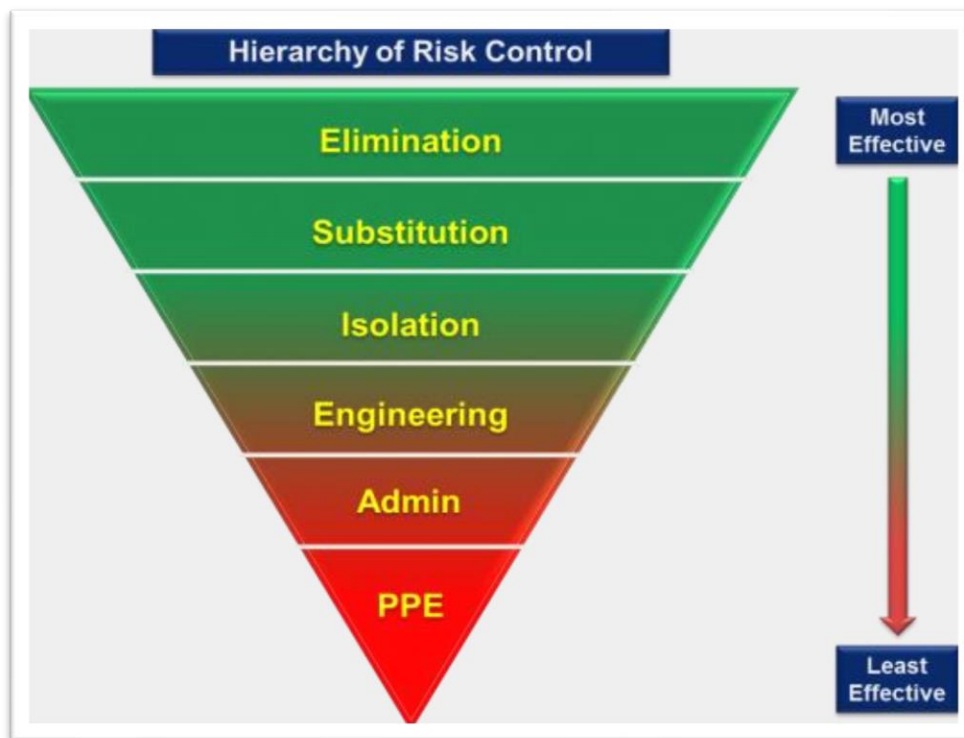


Figure1: Hierarchy of risk control

General hierarchy of control and description:

Description

- Elimination or removing the hazard completely
This implies the Reducing/Substitution – Change a material or piece of equipment to a less dangerous product e.g something toxic to something non-toxic.
- Substitution or transfer the risk
This is not an option that can be used routinely but may be appropriate from time to time. For example, using a specialist to undertake the task instead of completing it yourself

➤ Isolating and Engineering

These are Controls such as guarding or enclosing the hazard e.g. placing a guard on a knife-edge or paper cutter or placing barriers between walkways and traffic routes.

➤ Administration or Safe working systems or practices

This entails to following safe work procedures and training people on these can ensure that people do not stray from the safest method of doing things.

➤ Personal protective equipment (PPE)

The use of PPE reduce exposure to risk but it is considered last because it only protects the wearer. Personal protective equipment must always be used with other control measures and should be worn correctly and fitted properly.

Chapter 9. CONSTRUCTION SAFETY FOR OVERHEAD DISTRIBUTION LINES

There are many hazards associated with overhead power line construction. Beneath are some of the areas of greatest concern with overhead distribution lines construction, which require constant vigilance in adhering to all safety procedures. Just because a function or activity is not specifically addressed below does not mean it can't also be dangerous if all safety precautions are not taken. Always be aware of the hazards associated with any activity you are working around, follow all safety rules, and wear all required PPE as specified in section 10.4 or otherwise required. Always refer to the employer's (BURHANI ENGINEERS) safety plan for specific hazard mitigation for the types of work being performed.

9.1 Tower Foundations Construction

Employees entering drilled pier holes, or other similar deep and confined footing excavations, shall wear a harness with a lifeline securely attached to it in accordance with all BURHANI ENGINEERS standards. The lifeline shall be separate from any line used to handle materials, and shall be individually attended at all times while the employee wearing the lifeline is in the excavation.

Proper fall protection shall be worn by employees working on the surface around the pier holes. Contractor shall submit its Fall Protection Plan to BURHANI ENGINEERS for review. Jobsite personnel will verify that excavations, protection of excavations, and disposal of excavated material are being performed accordingly. Holes must be checked after digging for cave-ins, providing proper cover for personal protection for unattended holes, and setting of forms prior to pouring of concrete. When soil material is too hard to excavate with auger or a loose boulder is encountered, it may require the use of explosives or other means.

The Contract Admin is responsible to check the permits to make sure blasting is allowed and that the Sub/Contractor's personnel are qualified for the type of work required.

Blasting shall be in accordance with the project permits and or local national jurisdictions, if applicable.

9.2 Induced Voltage

Induced voltage and current in a de-energized transmission line, caused by other high voltage lines nearby or by a hovering helicopter, can be created by electric-field and magnetic-field induction. These voltages and currents present a serious work hazard for line-crew personnel. Proper understanding and identification of the associated hazards are necessary to safely perform de-energized line work.

9.3 Grounding

Personal Protective Grounding (PPG) provides protection against an induced voltage from parallel and/or adjacent lines as well as accidental re-energizing of lines or cables from unknown sources. Protective Grounds shall be placed at such locations and arranged in such a manner as to prevent each employee from being exposed to hazardous differences in electrical potential. There shall be a minimum of one ground on the conductors or equipment being worked on.

BURHANI ENGINEERS is responsible if its grounding chart for it to be respected. Multiple crews working on the same circuit shall provide their own work site Personal Protective Grounds.

9.4. Trenching & shoring

Trenches in soft or unstable soil, 5 feet or more in depth, must be sloped, shored or otherwise supported by means of sufficient strength to protect persons working in them. Trenches in hard or compact soil, 5 feet in depth and 8 feet or more in length, shall be shored or the trench sides above the 5 foot level sloped to be not steeper than one foot vertical to each 1/2 foot horizontal.

Proper fall protection per Federal and State rules and regulations shall be installed and employed around trench and vault excavations.

A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are 4 feet or more in depth so as to require no more than 25 feet of lateral travel for employees. Employees shall be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection shall be provided by placing and keeping such materials or equipment at least 2 feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

9.5. Traffic Safety

Employees exposed to construction and public vehicular traffic shall work within safety zones properly identified and coned off in accordance with approved traffic plans. Workers shall be provided with and shall wear warning vests or other suitable garments marked with high visibility reflective material.

9.6. Site work

Mobile earth-moving equipment used for construction or site development, including, but not limited to, bulldozers, motor graders, scrapers, loaders, skid steer loaders, compaction equipment, backhoes, end dumps, side dumps, and dump trucks, shall have all factory installed and/or OSH(Occupational Safety and Health) required safety devices and alarms.

Operators and all other employees working on the ground, exposed to mobile earth-moving equipment/machinery, shall be trained in the safe work procedures pertaining to mobile earth-moving equipment and in the recognition of unsafe or hazardous conditions.

Each employee working on the ground who is exposed to mobile earth-moving equipment shall be provided with and required to wear a high-visibility warning vest or other high-visibility garments. For work during hours of darkness or low light conditions, this protective equipment must be made of or marked with retro-reflective material.

9.7. Construction Yards and or stores

A single point-of-contact yard manager needs to be in charge of each yard to manage placement of equipment and materials, to resolve issues relating to compliance, parking, etc. The final site plan must be communicated to all subcontractors working on the site and any changes must be approved by the designated site manager.

The yard manager needs to oversee move-in of all subcontractors to ensure plans are carried out. When laying out a yard, the following critical activities must be considered:

- Security related to all points of ingress/egress (way in/way out)
- Office space and delineated parking,
- Material and equipment enactment areas,
- Fuel and other hazardous material storage.
- Structure assembly areas, etc.

Chapter 10. SCHEDULED INSPECTIONS/EVALUATIONS

10.1 Environmental, Health & Safety Compliance Program (EHSCP)

Bi-annual facility inspections will be conducted by Safety Team personnel and documented in internal information Management System (IIMS). These facility inspections along with employee safety training will be used to demonstrate compliance with the EHSCP.

10.2 Environmental & Safety Audits

In addition to routine inspections, the Internal Auditing may be requested to perform an Environmental & Safety Audit of the project. All personnel and contractors will cooperate with the audit team assigned. External audits to be performed by REG/EUCL and the WB and possibly any delegation in close collaboration with the mandated authority.

Add also a chapter on health and safety monitoring and measuring

- Including active and reactive monitoring
- Investigating incidents
- Health and safety auditing
- Health and safety performance

Chapter 11. INCIDENT INVESTIGATIONS

11.1 Company personnel

All BURHANI ENGINEERS employees are responsible for reporting every safety related incident, including serious injury, vehicle incident, property damage, minor injury or close call, to their Supervisor immediately after said Occurrence. The employee's immediate supervisor is responsible for gathering the necessary information from the employee(s) involved and performing an incident investigation in accordance with Safety Rules, Incident and Injury Reporting.

11.2 Contractor personnel

Sub/Contractors and Consultants will immediately notify BURHANI ENGINEERS Construction Manager or other primary contact, by the most effective means, of all safety incidents including

near misses, vehicle incidents, first-aids, OSH recordable, hospitalization, property damage, or any serious incident resulting in death. A written summary of the incident will be submitted to the Principle Construction Manager with a copy to the Safety Manager within full 2 days and a complete incident investigation report will be submitted within 20 calendar days of the incident. Sub/Contractor/Consultant shall cooperate with BURHANI ENGINEERS and the client (EUCL/REG) responsible Governmental Entities with respect to their independent investigations of the incident.

Chapter 12. EMERGENCIES

The frequency and severity of emergency situations can be dramatically reduced through training, safety awareness, and daily safety briefings. However, if an emergency does occur, quick and decisive action is required since delays in minutes can create or escalate life threatening situations. In an emergency situation, BURHANI ENGINEERS personnel involved must be prepared to respond immediately.

12.1 Emergency Action and Fire Prevention arrangement

Required Emergency Action and Fire Prevention Plans, emergency phone numbers and procedures, and hospital locations are included in this section to ensure rapid, effective response to an emergency. Each facility at the site for BURHANI ENGINEERS will have a written Emergency Action and Fire Prevention Plan specific for that facility. At BURHANI workplace, we do not under estimate the ability of a fire to quickly spread to an unmanageable size.

These plans will be posted, and BURHANI ENGINEERS personnel will be trained on the procedures within. Emergency Action/Fire Prevention Plans (EA/FPP) are in place to facilitate a coordinated response in the event of a workplace emergency. These plans describe the roles and responsibilities of the Facility Responsible Official, Supervisors, Employees, and Emergency Response Teams (ERT) during workplace emergencies.

The plans include, but are not limited to: communication strategies; evacuation routes; procedure for accounting for all employees; rescue and medical duties (for those assigned to perform).

12.2 Incident Action Plan

An Incident Action Plan was developed to establish processes and provide a general plan to help effectively manage moderate to large scale incidents that may occur during the Project. Principles of the Incident Command System (ICS) will be used to manage each incident and help bring structure to what can often be a disordered event lacking organization and communication.

12.3 Evacuation Procedures at work sites

Preparation for potential evacuation is important due to the concerns regarding the environmental hazards associated with the remote locations on Project.

An Evacuation Route Map has been developed to show safe exit routes and assembly locations (Available for all site workers and guests and will be posted at visible mode).

NOTE: This plan is to work in conjunction with our Company general Emergency Action Plan.

12.4 Evacuation

In the event of fire or other site emergency, the following evacuation procedures should be followed in tracking personnel leaving in the work site:

- At each work site the designated Point of Contact (POC) will verify the current head count and notify Base.
- Base will notify Fire Dispatch and Emergency Responders of personnel locations, headcount, rally points and headings to assist in evacuation operations.
- Radios and GPS tracking units will be monitored at Project Base. Updated information will be relayed to the Project Base as needed.
- Upon arrival at rallying points, all personnel to be evacuated will be required to check out with Base before leaving.

12.5 Heavy Rain

When possible, avoid entering the project right of way during or within 24 hours following a rain event—greater than a half inch of rain. However, in the event that vehicles have already entered the right of way prior to a rain event occurring and an emergency situation arises, serious consideration must be made to traveling on **access roads due to the slick conditions.**

12.6 Earthquake & Landslides

Helicopter evacuation may be the safest method of evacuation if available. If an evacuation by hiking and vehicle pick up is necessary, Project Base will make an assessment of the roads to be traveled by vehicle for safety before personnel attempt to hike to an extraction point. If roads are blocked or deemed unsafe for travel, Emergency Services will be notified immediately.

12.7 Responsibilities of all Field & Monitoring Personnel

Among their responsibilities include but not limited to:

- Assess situations and determine the action to take to ensure your safety.
- If evacuations are required, prioritize evacuations of field personnel by proximity to the immediate danger.
- Plan extraction site locations (rally points) for evacuation.
- Coordinate evacuation personnel and vehicles / helicopters
- Maintain contact with Base to coordinate efforts.
- Verify head-count at each work site with radio or cell phone.
- Assign recovery location and personnel to verify head-count. Project Base will maintain a daily work site and head-count list of all BURHANI ENGINEERS and sub-contractors/consultants on-site personnel.

12.8 Emergency contact information

All BURHANI ENGINEERS employees must ensure their emergency contact data in their basic info/contacts handbook or MyInfo is accurate.

Contract employees working under BURHANI ENGINEERS supervision must fill out and keep current at all times, an Emergency Contact Card. This will be kept on file at Base. All sub/Contractors and Consultants must ensure they have current emergency contact information for all their employees.

Table 1: Emergency contact information

Emergency Coordinators (ECs) / Key Personnel and bilateral institutions		
CONTACTS	NAMES	POSITION
		Client Representative /Focal point
		Project Manager

		Site Supervisor
		Emergency Coordinator (EC)
		Secondary/Alternate EC
		Organization /
		Site Safety Officer
<u>To be filled with accurate and to date information before any construction works starts and be posted at all sites</u>		
LOCAL BILATERAL INTERVENTION AGENCIES		
NO	SERVICE	DIRECT CONTACTS/Toll free line
1	Police Department	Police Emergency : 112
2	Fire Department	111
3	First Aid Services	Trained one/Nearest Health facility
4	Ambulance Service	912 / 0788 622 524
5	Breakdown Service	Police Emergency : 112/999
6	Gender based violence	3512
7	Abuse by an officer	3511
8	Traffic Accidents	113

12.9 Waste Control and Hazardous Spill

Contractor shall provide equipment and material to prevent spill of any hazardous or nonhazardous materials, control any waste generated during construction, and cleanup of all hazardous waste spills generated by the vehicles, equipment, or construction activities. All spills and releases shall be reported to agencies in accordance with the Project Hazardous Spill and Waste Control Plans. All solid wastes will be assembled at one point accessible for transportation to the Kigali city official dumping site after segregation per type.

(In case of an emergency, Call Base/CM, immediately at +250 (0) 788502233)

Chapter 13. SAFETY EQUIPMENT

13.1 Personal Protective Equipment (PPE)

Personal protective equipment (PPE) is provided by BURHANI ENGINEERS Company and is issued to employees to protect them from hazards that cannot be effectively engineered out of the work or administratively controlled. PPE will be issued through the Construction and rehabilitation of 30KV Overhead/underground Project; Safety team or through BURHANI ENGINEERS storerooms as needed.

Some PPE is required for every employee who works in and/or visits the field, while additional PPE is required only on a situational basis. Optional PPE is recommended but not required for employees who may encounter hazards where a specific requirement has not been established or when an individual has sensitivities to environmental conditions he/she may encounter.

All PPE, required and optional, is to ensure the safety of employees from jobsite/worksites hazards. A list of required and optional PPE is provided and annexed to this plan (Appendix 4) for all field employees:

Figure 2: Basic mandatory construction set of PPEs



13.2 Office Safety Equipment

Field offices shall be equipped with First Aid Kits, Fire Extinguishers, an Automated External Defibrillator (AED), and additional PPE and first aid supplies for restocking and employee checkout. All first aid kits shall be supplied and fully stocked per Company requirements in

accordance with National construction (Basic construction Instructions for protection of Disasters, RHA, 2012 and national OSH requirements, 2009).

13.3 Project Security

Secure worksites are important to the safety of all project personnel. Appropriate measures must be taken to account for material and to prevent theft and vandalism.

Chapter 14. SATETY RECORDS & DOCUMENT MANAGEMENT

All records, documents, reports, and inspections including and/or pertaining to BURHANI ENGINEERS employees or BURHANI ENGINEERS contract employees, will be kept at the headquarters location with a copy to the site help desk. Records, such as incident investigations and ESCP inspections, may also be found archived within the BURHANI ENGINEERS's Safety Information Management System (SIMS) but a physical copy will be kept at the BURHANI ENGINEERS Headquarters location. Project documentation will also be maintained on the Project Allocate Point/working place.

14.1 Daily Reports

Field Safety Advisors, along with Contract Administrators and other field personnel, will observe Sub/Contractor activities and document observations daily. Any unsafe conditions, effects of weather, job hazards, crew actions, etc. shall be recorded. Any violations of safety rules, regulations, suggestions, warnings, and instructions to the Contractor regarding unsafe conditions and any corrective action taken by the Sub/Contractor regarding unsafe conditions shall be recorded. Serious violations and incidents shall be reported immediately to the Project Team Base and then to BURHANI ENGINEERS Project Safety Manager and assigned Construction Manager.

14.2 Safety Meetings and Training

All safety meetings conducted or administered by any BURHANI ENGINEERS personnel shall be documented at a minimum by a sign-in sheet. Sign-in sheets will note the date, time, location, topic, and every participant shall print and sign their name to show attendance.

Chapter 15. INJURY AND ILLNESS PREVENTION

The purpose of this agenda is to outline the seven essential elements of BURHANI ENGINEERS's

Injury and Illness Prevention Program (IIPP):

- (I) Authority And Responsibility
- (II) Promoting Compliance With
Safe And Healthy Work
Practices
- (III) Communicating With
Employees in A Readily
Understandable Form
- (IV) Identifying And Evaluating
Work Hazards
- (V) Investigating Occupational
Injuries And Illnesses
- (VI) Correcting Unsafe Of Unhealthy
Conditions, Work
- (VII) Practices And Procedures in A
Timely Manner
- (VIII) Training And Instructions

*The **requirements** of this program apply to BURHANI ENGINEERS Management & employees, and are effective on the date of issue.

***Incident:** Any work related injury, illness, damage, or nearmiss/ let pass

15.1 Injury information data sheet

The Principal Sub/Contractor (BURHANI ENGINEERS/and or...) shall report daily, weekly and monthly injury statistics to the Client -EUCL or his agent as presented in appendix 5.

16.0 CONSTRUCTION HEALTH AND SAFETY PLANS

16.1 waste management plan

Project Description:

i. Waste Management Goals:

- This project will recycle or salvage for reuse a minimum of **XX%** by weight of the waste generated on-site.
- Waste reduction will be achieved through building design, and reuse and recycling efforts will be maintained throughout the construction process.

ii. Waste Prevention Planning:

- Compliance with Solid Waste District's (SWD) mandatory recycling requirements for businesses.

The SWD mandatory recyclables include:

- newspaper
 - corrugated cardboard
 - white and colored office paper
 - plastic and glass bottles and jars
 - metal cans
- Compliance with SWD and available District/Kigali city or Landfill, e.g.: disposal of tires, appliances, yard waste, mandatory recyclables, hazardous waste, batteries, fluorescent tubes, and large metal items.

- Project Construction Documents – Requirements for waste management which will be included in all work. The General Contractor (BURHANI ENGINEERS) will contractually require all subcontractors to comply with the SWD mandatory recycling requirements. A copy of this Construction Waste Management Plan will accompany all Subcontractor Agreements and require subcontractor participation.
- The Construction Waste Reduction Plan shall be implemented and executed as follows and as on the chart:
 - Salvageable materials will be diverted from disposal where feasible.
 - There will be a designated area on the construction site reserved for a row of dumpsters each specifically labeled for respective materials to be received.
 - Before proceeding with any removal of construction materials from the construction site, Recycling Coordinators will inspect containers for compliance with SWD requirements.
 - Wood cutting will occur in centralized locations to maximize reuse and make collection easier.
 - Hazardous waste will be managed by a licensed hazardous waste vendor/Wholesalers

iii. Communication & Education Plan:

- The General Contractor will conduct an on-site pre-construction meeting with subcontractors. Attendance will be required for the subcontractor's key field personnel. The purpose of the meeting is to reinforce to subcontractor's key field employees the commitments made by their companies with regard to the project goals and requirements.
- Waste prevention and recycling activities will be discussed at the beginning of each weekly subcontractor coordination meeting to reinforce project goals and communicate progress to date.
- As each new subcontractor comes on site, the recycling coordinators will present him/her with a copy of the Waste Management Plan and provide a tour of the recycling areas.
- The subcontractor will be expected to make sure all their crews comply with the Waste Management Plan.
- All recycling containers will be clearly labeled. Containers shall be located in close proximity to the building(s) under construction in which recyclables/salvageable materials will be placed.
- Lists of acceptable/unacceptable materials will be posted throughout the site.

- All subcontractors will be informed in writing of the importance of non-contamination with other materials or trash.
- Recycling coordinators shall inspect the containers on a weekly basis to insure that no contamination is Occurring and precautions shall also be taken to deter any contamination by the public.

iv. Motivation Plan:

- The project team will develop and publish a project mission statement that can be distributed to the subcontractors, attached to subcontracts, and posted at the jobsite.
- The General Contractor (BURHANI ENGINEERS) shall conduct a pre-award meeting for subcontractors. Subcontractors under consideration will be required to attend the meeting to review project goals and requirements with the project team. Attendance will be a prerequisite for award of subcontracts. A sign-off will be required by subcontractors attending the meeting that the project goals are understood. This document will be an attachment to every subcontract. Copies of the attachment will be posted prominently at the jobsite.

v. Evaluation Plan:

- The General Contractor (BURHANI ENGINEERS) will develop, update, and post at the jobsite a graph indicating the progress to date for achieving the project's waste recycling goal of XX% by weight of the total project waste stream.

vi. Expected Project Waste, Disposal, and Handling:

The following tables identify waste materials expected on this project, their disposal method, and handling procedures:

Table 5: Project Waste, Disposal, and Handling

Material	Quantity	Disposal Method	Handling Procedure
Land clearing debris		Keep separate for reuse and or wood sale	Keep separated in designated area on site.
Clean dimensional wood and pallet wood		Keep separate for reuse by on-site construction or by site employees for either	Keep separated in designated areas on site. Place in "Clean Wood" container.

Material	Quantity	Disposal Method	Handling Procedure
		heating stoves or reuse in home projects. Recycle at: Center; Cost = No charge	
Plywood, OSB, particle board		Reuse, landfill	Keep separated in designated areas on site. Place in “garbage” container.
Painted or treated wood		Reuse, landfill	Keep separated in designated areas on site. Place in “garbage” container.
Concrete		Recycle	Keep separated in designated areas on site
Concrete Masonry Units		Keep separate for re-use by on-site construction or by site employees	Keep separated in designated areas on site
Metals		Recycle at: drop-Off Center	Keep separated in designated areas on site. Place in “Metals” container.
Paint		Reuse or recycle at Environmental Depot; Cost = \$0.21/lb latex, \$0.37/lb oil	Keep separated in designated areas on site
Insulation		Reuse, landfill	
Flooring		Reuse, landfill	
Carpet and pad		Reuse or recycle with carpet manufacturer	
Glass		Glass Bottles:	Keep separated in designated areas on site. Place in

Material	Quantity	Disposal Method	Handling Procedure
		Recycle at: local recycle	“Glass/Plastic bottles/Metal Cans/Mixed Paper/Cardboard” container
Plastics		Plastic Bottles: Recycle CSWD local recyclers Plastic bags/scraps: Reuse, landfill	Keep separated in designated areas on site. Place in “Glass/Plastic bottles/Metal Cans/Mixed Paper/Cardboard” container
Beverage		Recycle at: SWD Recycling Facility (MRF)	Keep separated in designated areas on site. Place in “Glass/Plastic bottles/Metal Cans/Mixed Paper/Cardboard” container
Cardboard		Recycle at: SWD Recycling Facility (DRF)	Keep separated in designated areas on site. Place in “Glass/Plastic bottles/Metal Cans/Mixed Paper/Cardboard” container
Paper and newsprint		Recycle at: SWD Recycling Facility (DRF)	Keep separated in designated areas on site. Place in “Glass/Plastic bottles/Metal Cans/Mixed Paper/Cardboard” container
TOTAL			

DSW: District solid waste, **DRF:** District Recycling Facility

vii. Waste Disposal: Contractor:

Contact:

➤ **Name of landfill for disposal of non-recyclable waste:**

- Transfer Stations:
- Landfills (ultimate disposal location):

➤ **Landfill tipping fee:** \$XX / ton➤ **Estimate of waste for landfill disposal:****viii. Recycling Calculation:**

If all construction waste was disposed in landfill: $XX \text{ lbs} = XX \text{ tons} \times \$XX/\text{ton} = \$XX$

With recycling: **TOTAL = \$XX**

Include chapter on General workplace issues**including**

- **health welfare and work environment**
- **working at height**
- **safe working in confined spaces (given that we will work in underground)**
- **lone working**
- **safe movement of people and vehicles in the workplace**

16.2. Workplace health hygiene measures

For workplace environment need to be hygienic and safe for employees and visitors, even those which are not involved in the production and handling of food and personal products. Implementing a workplace hygiene plan is an effective way to ensure that all employees follow the same standards. Below are some key areas our workplace hygiene procedure will address:

16.2.1 Personal hygiene.

Personal hygiene refers to the cleanliness, appearance and habits of employees, which can occasionally be a sensitive issue for managers and business owners. An official rule helps to ease any awkwardness by establishing precisely what is expected from employees. Criteria including showering, using odor perfumes, grooming facial hair and hair-washing. Hand washing and the use of hand sanitizers also has great importance as a protection against the spread of illnesses.

16.2.2 Work area cleanliness.

Workplace hygiene policies will also make provision for each employee to clean and maintain their own workstation or work areas. The hygiene rule could include regular cleaning of surfaces with disinfectant to reduce the risk of bacterial contamination. Guidelines will typically also include keeping the area tidy and free of clutter.

16.2.3 **Restroom**, sanitary and washing facilities.

The workplace hygiene guidelines and requirements shall provide restrooms for all employees to be equipped with running water, hand soap, toilet paper and hand drying towels or equipment. This is to ensure that workers have the opportunity to practice personal hygiene after using the facilities. All employees are required to maintain the facilities themselves, however, the workplace hygiene guidance will including posted details such as the timetable of frequency of cleaning and the type of products to use for cleaning the ground, toilet bowls and basins.

16.2.4 Clean potable or drinking water

Clean water will be provided to all project site to be used by employees for drinking purposes. The requirement of recipients to be used for servicing of water will be mandatory and the same will also be availed to sites and employees should keep them clean at all the times and be disposed at very clean table for easy and safe use to ensure a healthier working environment.

16.2.5 Shelters and Changing Rooms:

Apart from site stores, workers shall be provided and availed specific rooms for shelter and changing room purposes to avoid any hazard that may occur from the related improper working conditions. Also to serve as transition for injured worker during first aid treatment and pre-arrangement.

16.3 Preventing sexual exploitation abuse and harassment and violence against children

As part of prevention and response against sexual exploitation and abuse and sexual harassment action plan, the following principles are to be fully respected and well overseen carefully:

- i. Sexual exploitation and abuse by humanitarian workers are acts of gross misconduct and are therefore grounds for termination of employment.

- ii. Sexual activity with children (persons under the age of 18) is prohibited regardless of the local age of consent, i.e. the local or national laws of the country you are working in. Ignorance or mistaken belief in the age of the child is not a defense.
- iii. Exchange of money, employment, goods or services for sex, including sexual favours or other forms of humiliating, degrading or exploitative behaviour by Employees and Related Personnel is prohibited. This includes the exchange of assistance that is due to participants.
- iv. Sexual relationships between employees and beneficiaries are strongly discouraged since they are based on inherently unequal power dynamics. Such relationships undermine the credibility and integrity of the global humanitarian response.
- v. When an employee develops concerns or suspicions regarding sexual exploitation or abuse by an Employee or Related-Personnel s/he must report such concerns via the established reporting procedures of the appropriate agency entity or through the inter agency Community Based Complaints Mechanism (CBCM).
- vi. Employees are obliged to create and maintain an environment that prevents sexual exploitation and abuse and promotes the implementation of this Policy. Project Managers at all levels have particular responsibilities to support and develop systems that maintain this environment.

The strategy of prevention of violence against children will be guided by the following 6 actions:

1. **Supporting parents, caregivers and families:** Educating families, caregivers and parents on their child's early development increases the likelihood that they will use positive disciplining methods. This reduces the risk of violence within the home.
2. **Helping children and adolescents manage risks and challenges:** Giving children and adolescents the skills to cope and manage risks and challenges without the use of violence and to seek appropriate support when violence does Occur is crucial for reducing violence in schools and communities.
3. **Changing attitudes and social norms that encourage violence and discrimination:** Changing the attitudes and social norms that hide violence in plain sight is the surest way to prevent violence from Occurring in the first place.

4. **Promoting and providing support services for children:** encouraging children to seek quality professional support and report incidents of violence helps them to better cope with and resolve experiences of violence.
5. **Implementing laws and policies that protect children:** implementing and enforcing laws and policies that protect children sends a strong message to society that violence is unacceptable and will be punished.
6. **Carrying out data collection and research:** Knowing about violence – where it Occurs, in what forms, and which age groups and communities of children are most affected – is essential to planning and designing intervention strategies, and setting numerical and time-bound targets to monitor progress and end violence.

Chapter 17. COVID-19, HIV/AIDS, HEPATITIS AND NON-COMMUNICABLE DISEASES AWARENESS PROGRAMME

17.1 COVID-19 PREVENTION AWARENESS PROGRAMME

Name and definition of COVID-19

"COVID-19" is shorthand for **CO**rona**VI**rus **D**isease **2019**. It is a respiratory disease caused by the SARS-CoV-2 virus (coronavirus)

Symptoms and control

For most people, the virus will cause only a mild illness with symptoms such as a fever, cough or sore throat. If you can manage your symptoms without a doctor helping you, your doctor will tell you to look after yourself at home in self-isolation. This means you need to stay in a room by yourself while you get better, so you don't give the virus to anyone else.

How long will symptoms from the virus last?

For some people, symptoms of the virus may last between days and weeks and may get worse over time. People who have experienced severe symptoms or side effects from the virus may take weeks or months to recover fully, while people with a mild illness may feel completely better within a week or two.

Even if your symptoms are mild you should remain in self-isolation for at least 10 days since your symptoms started, and until you have at least 72 hours symptom-free.

First Aid for the Virus

- Stay hydrated – drink water until your urine is pale or clear
- Eat healthy – greens, vegies, all the good quality and healthy food groups
- Keep up your vitamins and minerals for immune support – vitamin C
- Keep temperatures down- damp washer – Panadol used accordingly to your age and weight
- Minimise exercise and high heart rate activities to reserve energy

- Rest – get plenty of rest to recover

Your doctor may have given you advice about medicines you can take to help with your symptoms. It's important to only take medicines your doctor has recommended.

What happens if my symptoms get worse?

If you start to feel sicker, contact your doctor or call 114 to speak to MoH/to a designated doctor – you can use this service 24 hours a day, 7 days a week. Call double one four (114) and ask for an ambulance. If you can, explain to the operator that you have signs similar to those for the novel coronavirus (COVID-19).

Hospital treatment

Some people who have novel coronavirus (COVID-19), particularly people who are elderly or have pre-existing health conditions like heart disease, diabetes or asthma, could experience serious symptoms and side effects. Sometimes these can be life-threatening.

Serious symptoms and side effects of novel coronavirus (COVID-19) can include:

- pneumonia – an infection of the lungs which can make it hard to breathe
- bacterial infection – a secondary infection caused by bacteria
- Sepsis – a life-threatening condition that happens when the body's response to an infection damages healthy tissue and organs.

What can I do to stop the spread of novel coronavirus (COVID-19)?

If you have been diagnosed with novel coronavirus (COVID-19), you might be concerned about spreading the virus to others. The best thing you can do is self-isolate properly if you are at home, and follow the instructions given to everyone about hygiene.

Everyone should be following these steps to prevent the spread of novel coronavirus (COVID-19):

- wash your hands often and properly

- wear an appropriate mask
- try not to touch your face (especially nose, mouth and eyes)
- practice social distancing-stand 1.5 metres away from others
- Avoid/Minimise unimportant travels
- Do not go out when you are sick, even if you have not been diagnosed with novel coronavirus (COVID-19).
- avoid unsourced news/info

Failure to respect these measures, is sanctionable by work code of conduct

Other Topics:

- 1) Social distancing, reduced number of workers and effects
- 2) Savings and Government assistance
- 3) Other living conditions: workers/ employees Vs Sites and residence community and basic services

17.2 HIV/AIDS awareness programme

i. Objectives of the programme

The programme is aiming to:

Decrease the rate of new HIV infections at the construction site, within project employees/workers industry and in the envioning communities

Ensure appropriate management of construction workers affected and infected by HIV/AID

- Advocate and Facilitate access to Voluntary Counseling and Testing (VCT)
- Activist and Facilitate access to Sexually Transmitted Infection (STI) treatment
- Capacitate the industry with the necessary knowledge on treatment, self-care and wellness as HIV infected
- Lessen the stigma and discrimination attached to construction workers suffering from HIV/AIDS
- Hearten safe working environments on construction sites

- Position the industry to respond to the risks of direct and indirect costs incurred as a result of the disease
- Aim to reduce HIV/AIDS infection in the communities in which the industry works
- Check and Monitor, evaluate and review the Strategy continuously to ensure relevancy and effectiveness

ii. HIV/AIDS prevention vs. preparedness

HIV prevention. A two-pronged approach can be adopted to reduce the risk of HIV infection among project staff, partner institutions and target groups: (i) information, education and communication (IEC); and (ii) measures designed to reduce vulnerability to HIV infection

- **Preparedness.** Measures taken in advance to develop operational capabilities that will facilitate a rapid response to the crisis could include: (i) projecting future epidemic impact in a project area; (ii) planning for the future impact of HIV/AIDS; (iii) building the capacity of governments, NGOs and communities to deal with current impact, and project and plan for future impact; (iv) preparing operational response action plans; and (v) earmarking funds.

Through appropriate trainings and information availability at the site and vicinities, BURHANI ENGINEERS declare its commitments and contribution to adverse different causes and tentative of HIV/AIDS spreading and diffusion which may occur from project workers as group inclusion in the existing communities.

17.3. Hepatitis prevention and awareness programme

i. Basics and Definitions

The word “hepatitis” means inflammation of the liver. Hepatitis is caused by viruses, which are small organisms that can cause disease. There are many different types of viruses that cause hepatitis, and it is possible to be infected with more than one hepatitis virus at the same time. Each virus is completely different from the other viruses, all are prevented and transmitted differently, and each causes different symptoms.

Hepatitis A: is transmitted through the fecal-oral route. It is often caught by eating food or drinking water that is contaminated with the feces (stools) of a hepatitis A infected person, so

hepatitis A is a big concern within the food industry. Once someone's immune system clears the virus, he or she cannot catch it again. There is a vaccine available to prevent hepatitis A.

Hepatitis B

Hepatitis B is found in the blood, saliva, vaginal fluid or semen of an infected person. It can be transmitted through unprotected sexual contact, human bites, and through blood to- blood contact. Ninety percent of people infected with hepatitis B clear the virus from their system without treatment. There is a vaccine available to prevent hepatitis B.

Hepatitis C

Hepatitis C is transmitted only through blood-to-blood contact. Eighty percent of those infected with the hepatitis C virus will develop chronic (lifelong) symptoms, and about 20% of the people who have chronic symptoms will eventually develop liver cirrhosis (scarring of the liver). It is important to know that hepatitis C does not always make people sick (one out of five people will actually get rid of the virus without any treatment), and for those who do experience illness, it can take many years for symptoms to develop. There is no vaccine for hepatitis C. Hepatitis E, D and G are rarer.

ii. Precautions for hepatitis (C / and/or B) in workplace

Here is a list of universal precautions that can be put into practice in the workplace:

- **1** Bandage all cuts right away to avoid contact with other people.
- **2** Blood and other body fluid should be cleaned using a solution of 1 part bleach, 9 parts water.
- **3** Do not use bare hands to clean up items soiled with blood or other body fluids; wear gloves.
- **4** Put sharp items into a solid, sealable container that won't puncture garbage bags to prevent those handling garbage from pricking themselves.
- **5** Wash your hands with soap and hot water for at least 20 seconds after you have had contact with blood or other body fluids, after going to the bathroom, before preparing or eating food, and after removing latex gloves.
- **6** Use hand lotion to help keep your hands from becoming chapped or irritated. Intact skin is your first defense against infection!
- **7** Flush eyes, nose or mouth with water if exposed to another person's blood or body fluid.

Include also immunization and medical certificate of the workers (at starting of the project and after project completion)

iii. BURHANI ENGINEERS Policy for Hepatitis (to enforce prevention programme):

BURHANI ENGINEERS believes that employees infected with hepatitis C are valued employees who do not pose a health risk to others in the workplace. Employees living with hepatitis C are encouraged to remain productive at work as long as possible. They will receive the support and consideration of the employer, and will not be subjected to any discriminatory practices. An employee's hepatitis C status and details of his or her medical condition will be kept strictly confidential.

Capacity building

BURHANI ENGINEERS will provide education on hepatitis C prevention for all employees, with the support of the nearest Health center to our project site. Confidential referrals to other agencies and on-site educational resources are available through EHS Manager.

Support to the employee

For employees who are, or may become, infected with hepatitis C or any other chronic or life threatening disease, we) will:

- ensure confidentiality about the condition;
- ensure continued employment as long as the employee is able to perform the essential duties of his/her job or has been reasonably accommodated to the point of undue hardship;
- ensure continued coverage under the terms and conditions of the current benefit package and (name of organization) personnel policies (and, if applicable, collective agreement);
- provide a supportive workplace environment that responds to hepatitis C as it would to any long-term chronic illness;
- prohibit discrimination in the workplace; and
- Post information indicating whom employees should contact within the workplace if they feel harassed or discriminated against due to their condition.

Key information to the employer

- a. An employee is under no obligation to disclose that he or she is living with hepatitis C.
- b. Anyone who has any illness or disability should inform his or her supervisor when he or she is no longer able to perform essential duties of his or her job.
- c. Anyone wishing to claim benefits for medical expenses (such as prescriptions) or disability through the benefits package will be required to provide complete medical information to the insurance company supplying the benefits.
- d. An employer is required by law to keep employees' medical information confidential. It is up to the employee to decide whether or not to disclose details of his or her medical condition to coworkers.
- e. A supervisor may need information about the employee's capacity to work in order to accommodate an employee's disability.

...../.....
The Management

BURHANI ENGINEERS LTD

17.4. Non-communicable diseases awareness plan at project workplace sites

PROJECT recognize that it is imperative that every workplace, big or small, provides health promotion and preventive initiative; because it is the workplace where a person spends a good and big part of their time when they are active and this can provide a good platform to inculcate healthy habits among them.

Also, expenditure in healthcare for the employees leads to reduction in sick absenteeism and also their moral remains high which in turn leads to high productivity. So it should be seen as an investment, and not as an expenditure. Most of the Organisations provide insurance to their employees and spends lot of money on curing diseases after they have developed. Rather, a preventive ecosystem needs to be created by which they should encourage employees to undergo preventive assessments so that the amount of money spent on serious diseases can be saved.

- **PROJECT** Holistic approach of non-communicable diseases (NCDs) management in the Occupational setting is strengthened with both employer and employee education and participation, targeting several approaches including risk management and advocating healthy lifestyles as part of a healthy workplace programme.
- With this in mind, Occupational health services (OHS) among others, will provide screening and management of NCDs at various points of service – particularly at entry and at periodic intervals for specific jobs as well as walk-in clinics and referrals from other specialties. These clinical activities will complement other essential OHS activities such as workplace surveillance, workplace health advice and promotion, as well as workmen's compensation issues.
- Thus, a holistic approach to management of workers' health status, workplace environment as well as policy change will be implemented by encouraging workers to visit clinical services aiming to know their health status through check-ups and where possible be included in employment requirements.

17.4 General **safety** rules while working on our workplace

The following is an exhaustive list of general safety rules to follow while working on the job site. Following these rules may prevent you or a coworker from becoming involved in an incident (This is the employee safety induction Module content). The module is composed of the following key points not limited to:

1. Be sure you know how to perform the job and perform it safely.
2. Be sure you know its hazards and how to protect yourself. If you aren't sure or have questions, ask your supervisor!
3. Report all near misses, incidents, injuries and illnesses immediately.
4. Wear the required personal protective equipment necessary for the job. Safety glasses are required as minimum eye protection on all jobsites.
5. Always work clear of suspended loads.
6. Never conduct any work, unless trained.
7. Do not become complacent! Always keep your mind and eyes on the task at hand.

8. Always know the emergency action plan for your jobsite. Know what the warning tones are and where to go.
9. Obey all warning signs, posters and barricades.
10. Inspect all equipment, scaffolds, ladders, lifts, etc. before using. If found to be defective remove from service.
11. Report any unsafe tools, equipment or hazardous conditions to your supervisor.
12. See that good housekeeping is maintained in your work area.
13. Exercise proper lifting techniques.
14. Operate vehicles in a safe manner and obey site driving rules.
15. Do not perform work under unsafe conditions. Any employee has the right to stop work if they feel it is unsafe.
16. Horseplay of any kind will not be permitted.
17. Only authorized personnel shall repair company furnished tools or equipment.
18. Firearms on the job are prohibited.
19. Always keep a positive attitude. This will make the day go better and make you a safer worker.
20. Do not use ladders as scaffolds and never climb so high that it is impossible to hold the top step for support.
21. Never use a step ladder as a straight ladder.
22. Don't put yourself and your supervisor on the spot by not observing safety rules and regulations!
23. If you see someone doing something unsafe or at risk say something to that employee!
24. If you have any concerns or questions, do not hesitate to contact Mr/Ms., the ESHS Advisor/ Manager.

17.5 Site re-establishment plan

The construction phase of this project will be composed by excavation of project components like substation plot, access road, materials stores etc. After construction of the substations with related

facilities, the contractor will rehabilitate sites upon their initial status with respect the following items:

- Minimize removal of topsoil /put aside all topsoil in order to reuse at closure
- For all components of the project, the contractor is obliged to restore sites back to their previous/ natural conditions.
- Plan all rehabilitation environmental protection measures: recuperation and safe disposal/reuse of material and structures (bridges, drainage pipe, etc.); reuse top soil that was scuffed and put aside, plantation of trees, restoration of soil condition for culture, etc.
- Re-plant degraded areas with local species common in the area to complement natural vegetation regeneration to improve ground cover.
- Re-vegetate all finalized areas on an on-going basis
- **At closure** restore the site to original state or specific state according to contract with the landowner/community and sign with them a «receive in good state» form with confirmation photos of restored site.

17.6 Work permits

The implementation of this project will require access roads, borrow pits & quarries, spoil areas and quarries etc which will require different permits. The following permits and measures will be required during construction phase:

- Identify and use quarries recognized by state (quarry materials, gravels and sands)
- Develop detailed ESIA/ARAP for road construction and new quarries/obtain permit/implement and supervise social and environmental measures
- Recruit a certified valuer for to conduct valuation of assets that will be affected
- Permit to be provided by RURA will be required for spoil areas (if spoil areas will be established)

17.7 Management of non-conformities

When material, performed work, or installation is found deficient, the SHE Advisor and/or Environmental Manager will ensure that the non-conforming material, work, or installation is identified and controlled to prevent unintended use or delivery. The SHE Advisor will notify the Resident Engineer of any noncompliance with any of the foregoing CEHSP requirements. The contractor will, after receipt of such notice, immediately take corrective action.

Minor deficiencies noted during inspection are verbally reported to the Project Manager and noted on the Daily Construction Report. Minor deficiencies are actions that do not require significant rework or repair work to correct, and will not result in significant deviations from required environmental quality standard if corrected immediately. The corrective mitigation measures/actions will be proposed and implemented immediately

Control and disposition of such deficiencies shall be by the originator of the Daily Construction Report and the contractor's supervisor responsible for the work and required immediate corrective actions by implementing the mitigation measures in this CEHSP or if it is an unprovided ones, correctives measures has to be proposed and implemented. Ideally, such minor deficiencies can be corrected on the spot by agreement with the contractor's supervisor.

Non-conformances are major deviations from the contract requirement and/or accepted environmental and social requirements, standard of quality, which will be formally documented for corrective action by field staff (Project Manager, ESS and H&S Specialist. Non-conformances shall be formally documented by ESS/H&S Advisor(s). A log shall be maintained for all non-conformance report. The contractor has to stop the work in that particular workshop and immediate corrective actions has to be implemented. The ESS/H&S will follow up on the non-conformance report as required to verify that corrective action has been completed. The ESS/H&S will verify and accept the corrected work by actual inspection and the report shall be provided to the consultant to authorize the continuation of the work.

17.8 Contractor code of conduct for workforce

17.8.1 Coverage

This code of conduct applies to all the Employees of the project under the contractor management. Employee shall mean all individuals on full-time or part-time employment with the contractor, with permanent, probationary, trainee, temporary or contractual appointment for this project.

The Contractor also expects its managers to lead by example and perform their duties in accordance with this code of conduct and ensure that the content of this code are communicated to all employees.

17.8.2 Clauses covered under the code of conduct

17.8.2.1 Professionalism

The personal and professional behavior of Employees shall confirm to the standards expected of persons in their positions, which includes:

- A commitment to and adherence to professional standards in their work and in their interactions with other Employees of the Company;
- A commitment to maintaining the highest standards of integrity and honesty in their work;
- An adherence to ethical and legal standards to be maintained in project activities;
- A responsibility to support the Company in its efforts to create an open and mutually supportive environment;
- A responsibility to share information and give willing assistance in furthering the goals and objectives of the Company for successful of this project; and
- A responsibility to ensure that there is no misrepresentation of facts. Wherever a misunderstanding is thought to have taken place through unclear communications, this should be corrected promptly.

17.8.2.2 Conflict of Interest

- Each Employee is expected to avoid situations in which his or her financial or other personal interests or dealings are, or may be, in conflict with the interests of the Company. Accordingly, the Company expects its Employees to act in the Company's interest at all times.
- Employees are advised not to engage in any other business, commercial or investment activity that may conflict with their ability to perform their duties to the Company. Employees must also not engage in any other activity (cultural, political, recreational, and social) which could reasonably conflict with the Company's interests and interfere with the performance of their duties.
- Employees must not use any Company's property, information or position, or opportunities arising from these for personal gains or to compete with or to tarnish the image of the Company.
- Employees should not engage in any business activity, which could be detrimental to, or in competition with, the Company's any business activities for this project.
- All Employees must avoid situations in which their personal interest could conflict with the interest of the Company. If, under any circumstance, Employees' personal interests conflict with those of the Company's, in all such cases the Employee must seek advice from his or her reporting/ reviewing manager or from senior management.

17.8.2.3 Confidentiality of Information

As a result of employment with the Company, Employees may be entrusted with confidential information; with regard to the Company and/or its affiliates, its customers and suppliers.

17.8.2.4 Protection and Use of Company Property

- All Employees of the Company are responsible for protecting and taking reasonable steps to prevent the theft or misuse of, or damage to Company's assets, including all kinds of physical assets, movable, corporate information and intellectual property such as copyrights, technology and intellectual property used in carrying out their responsibilities.

- All Employees must use all equipments, tools, materials, supplies, and Employee time only for Company's legitimate business interests. Company's property must not be borrowed, loaned, or disposed of, except in accordance with appropriate Company's policies.
- All Employees must use and maintain Company's property and resources efficiently and with due care and diligence.

17.8.2.5 Acceptance of Gifts and Other Benefits

- Employees should not give or accept gifts or any other personal benefit or privilege that would in any way influence or appear to influence any business decision.
- Accepting money, gifts, loans or any other benefit or preferential treatment from any existing or potential customer, supplier or business associate of the Company, is strictly prohibited, except occasional gifts of modest value and entertainment on a modest scale as part of customary business practice.
- All other prospective offers of gifts falling outside the foregoing guideline, but which reflect customary and transparent business practice in a particular market, may be accepted.
- However, in case of doubts, the Employee must refer the case to his/her manager who will decide on the action to be taken.
- It is unacceptable to directly or indirectly offer, pay, solicit or accept any kind of inducements or bribes.
- Any attempted transaction of this nature should be immediately reported to the employee Manager.
- The funds and resources of the Company shall not be used directly or indirectly for any such purpose.

17.8.2.6 Harassment!

- The Company is committed to provide a work environment that is free of inappropriate behavior of all kinds and harassment on account of age, physical disability, marital status, race, religion, origin, sex, sexual orientation or gender identity.

- Employees are responsible for supporting the Company in its endeavor to protect others from any form of such harassments.
- In the course of business conduct of any Employee, wherever harassment Occurs to any such Employee as a result of an act or omission by any third party or outsider, the Company shall take all steps necessary and reasonable to assist such affected Employee in terms of support and preventive action.
- Any harassment towards local community members specifically women is totally unacceptable. Any person who will participate in harassment will be punished as per the Law No. 13/2009 of 27/07/2009 and other policies prohibit harassment in Rwanda.

17.8.2.7 Alcohol & Substance Abuse

- The use or possession of alcohol, illegal drugs, and other controlled substances in the workplace and being under the influence of these substances on the job and during working hours is strictly prohibited.
- However, possession of prescription medication for medical treatment is permitted under proof of authorized Doctor.
- There may be company-sponsored events where management approves the serving of alcoholic beverages. In these cases, all appropriate laws must be followed, including laws regarding the prohibition of serving of alcohol to those under the legally permissible age (-18). However, under all such cases, excessive drinking, intoxication and misbehavior at these events is prohibited and will be dealt with severely.

17.8.2.8 Fraud

Fraud or the act or intent to cheat, trick, steal, deceive, or lie is both dishonest and, in most cases, criminal. Intentional acts of fraud are subject to strict disciplinary action, including dismissal and possible civil and/or criminal action against the concerned Employee.

Some examples of Fraud include:

- Submitting false expense reports;
- Forging or altering checks;
- Misappropriating assets or misusing Company's property;

- Unauthorized handling or reporting of transactions;
- Sale and distribution of unauthorized products.

17.8.2.9 Compliance with Laws and Agreements

All Employees shall conduct their duties in compliance with all applicable laws and regulations of the Government of Rwanda.

17.8.2.10 Health, Safety and Environment

All Employees shall comply with the company health and safety norms as communicated to them from time to time. Employees shall bring to the management's attention any workplace safety or health hazard.

17.8.3 Misconduct and non-conformance with the code of conduct

Non-observance of this code of conduct shall be construed as misconduct that could warrant disciplinary action, including dismissal/sacking. The decision in this regard will lie with the Management decision and shall be binding on the Employees.

Preventing Gender -Based Violence (GBV) and Violence Against Children (VAC)

Fair Competition...

Confidentiality

17.8.4 Sanctions

17.8.4 Exceptions

Any exceptions to the norms laid down in this code of conduct may be at the discretion of the Project Manager or any appropriate authority delegated by him/her.

17.8.5 Contact

All queries and clarifications on the code of conduct may be referred to the Construction Manager
Available @ +250 788502233

17.8.6 Amendments/ Updates to Code and Disclaimer

The Company reserves the rights to change/ amend / add /delete/ modify this Policy in whole or in part, at any time without assigning any reason whatsoever. The Employees acknowledge that they will not be personally advised of any such change/ amendment / addition /deletion/ modification. The Employees are advised to check for any such change/ amendment / addition /deletion/ modification regularly. The Employees hereby unconditionally agree to all such changes / amendments / additions / deletions / modifications.

17.9 Individual codes of conducts

17.9 Training

The Environmental Manager must identify the knowledge and skills necessary for implementation of the management systems and programs and identify training requirements for the organization's personnel. All persons responsible for undertaking work during the construction phase of the project must be trained on the contents of the CEHSP.

The trainer is responsible for identifying the knowledge and skills necessary for the implementation of the CEHSP and associated programs and to identify training requirements for the workers and staff involved in the implementation of the action plan.

Ensure that all site personnel have a basic level of environmental awareness training. The contractor will submit to EUCL/Consultant Agenda and concept (content) of onsite trainings (All

as specified in this report). All minutes and reports (including signed list of participants) from trainings will be shared with the client and consultant.

The H&S Advisor will provide to personnel to the Site with basic induction training by respective Contractors on safety and health, including safety at work, arrangement of first aid and Kit operations. The induction training record forms an essential part of processing the site entry registration for newly employed personnel. Training will be required even though a worker already holds sufficient experience. The contractor that changes in a worker work environment may cause his/ her to be exposed to new or increased risks, requiring further training. The need for further training will be considered when there is a change in the work environment or systems of work in use. A significant change is likely to need a review and re-assessment of risks, which may indicate additional training needs. Safety-training program must cover the following aspects:

- Safety Induction Course
- Contractors are required to conduct Safety Induction Course for every worker before they begin work on the project. The content of the course will include, but not limited to, the following subjects:
 - Health and Safety Policy
 - General Duties of Employees
 - In-house Rules
 - Procedures for Reporting Injuries
 - Fire Emergency Procedures
 - Use of Fire Extinguishers
 - Working at Height including the exercise of the use of safety harness and fall arrester.
 - Other hazardous works with their corresponding safety measures.
 - Use of Personal Protective Equipment
 - Permit to Work System(s)
 - Foreseeable Hazards of the Site
 - General Environmental Protection Rules on Construction Sites

- Site Layout and Welfare facilities.

17.9.1 Training Matrix

Employee training is a key component of any safety program. The matrix provides guidance for contractor to identify common employee training requirements. The matrix does not include every training topic needed. Keep in mind that an employee must have training to do their job safely. Therefore, if they have duties that are potentially hazardous contractor must ensure that appropriate information has been provided. Any time the duties, equipment and/or processes change, the employee must receive updated training. Training must be documented and records must be kept for a minimum of two years. Before to conduct a training, the agenda and content must be sent to the client & consultant for approval. At the end of each training, the contractor will submit training report including list of participants and their signatures.

Table 6: Training Matrix

Applies to:	Required training Class	Training frequency
All classifications	Injury and Illness Prevention Program (IIPP)	Initial hire (all)
	Emergency plan	Initial hire, review when changed
	Fire extinguisher use*	Initial hire
	Health and Safety	Initial hire
	Environmental and Social topics	Initial hire
Users of chemicals or those who may be potentially exposed to them	Hazard communication	Initial hire or the introduction of a new chemical
Employees performing maintenance on stationary machinery	Lockout/tag-out	Prior to working on the equipment and when procedures change

Users of eye, face, foot, hand or hearing protection	Personal Protective Equipment (PPE)	Prior to using the PPE
Employees exposed to high noise levels	Hearing protection	Initial hire
Users of any type of respiratory protection	Respiratory protection	Prior to use and annual refresher
Employees who generate or handle hazardous waste	Hazardous waste management	Initially **
Employees working on an unguarded surface more than 2 meters off the ground	Fall protection	Initial hire
Employees using portable or stationary power tools	Tool Safety	Initial hire
Operators of forklifts and powered, elevated work platforms	Training on specific equipment to be used	Before initial use of the equipment

*** Fire extinguisher training should be made available on a voluntary basis to everyone.**

**** Depending on job duties, other requirements may apply.**

The contractor should ensure that all employees receive general and job-specific training prior to initial or new job assignments. In addition, training is required:

- Whenever new substances, processes, procedures or equipment are introduced to the workplace which may create new hazards;
- When new or previously unrecognized hazards are introduced into the work environment or brought to a Contractor's attention;
- When an employee cannot demonstrate adequate understanding of the safety requirements of a task.

Chapter 18. REPORTING

The Contractor will submit reports related to Environment, Health and Safety (EHS) as follow:

- 1) Daily report: Situational flash report on any incident occurred
- 2) Weekly Report: A separate weekly report highlights all issues performed in the week related to EHS will be prepared. The report will also describe planned activities to be performed in the next coming week;
- 3) Monthly Report: A separate monthly report highlights all issues performed in the month related to ESHS will be prepared. The report will also describe planned activities to be performed in the coming Month;
- 4) Quarterly Report: A separate quarterly report highlights all issues performed in the three last months related to ESHS will be prepared;
- 5) Incident/Accident Report: In case of incident/accident, the contractor field staffs (Including ESHS) will report immediately to the Contractor Residential Project Manager then to Consultant Residential Project Manager and after to REG-EUCL. When necessary, external support (Police or other institutions) must be requested by the contractor in collaboration with the client. Details reporting strategies in case of incident/accident are discussed in separate HS Management Plan.

All reports should be prepared by Health and Safety Advisor(s). All reports will be submitted weekly, monthly and quarterly to the consultant for review and approval. The Contractor is responsible to revised reports as per comments given by the consultant until reports meet CEHSP requirements as well as international best practices

Chapter 19. CEHSP Atmosphere

Table 7: CEHSP Atmosphere

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
Site Management Plan	Construction	Management Phase	<ul style="list-style-type: none"> ✓ Minimize area to be disturbed as much as possible; ✓ Prohibit works from exceeding the approved working plot. ✓ Ensure that any material overflowing from stockpiles/ storage embankments onto residential/ agricultural land is removed immediately upon identification. ✓ To create trenches downside of excavation sites and stockpiles in order to avoid materials overflowing toward agriculture and residential land - Undertake slope stability and erosion protection before excavation activities 	<ul style="list-style-type: none"> -To avoid damage for non-compensated assets and complaints -To avoid soil erosion and downside damage from construction activities -To protect any kind of erosion -To avoid or minimize damages 	Contractor	Project Life Cycle (PLC)

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<ul style="list-style-type: none"> - All damages to be caused by overflowed materials should be compensated by the contractor - Contractor shall employ best engineering practice in the excavation of the pits and for ancillary facilities in order to avoid adverse alteration of the hydrological pattern of flow - Using water as a dust suppressant - Scheduling works to avoid heavy rainfall periods (i.e., during the dry season) to the extent practical; - For excavation works during the rainy season, construct temporary drainage channels to divert water to natural 	<p>outside approved plot</p> <p>-To perform the work with minimum environmental effects</p> <p>-To reduce dust emission</p>		

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			soakaways away from areas of potential erosion			
		Monitoring Program	<ul style="list-style-type: none"> - To observe if the contractor is working within approved plots; - To check if proposed measures to avoid materials overflowing toward residential and agriculture land such as creation of trenches, slope stability etc are implemented before construction activities; - To verify if no assets located down side of construction site is affected by construction activities. If any, measures taken to compensate affected assets; - 	<ul style="list-style-type: none"> -To ensure that no additional assets affected -To Minimize social complains -To ensure that any asset affected accidentally outside the ROW is compensated as per RAP requirements 	<ul style="list-style-type: none"> -Supervisor -Supervisor -Supervisor 	PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
	Decommissioning and site rehabilitation	Management Phase	<ul style="list-style-type: none"> - Stockpile soils in close proximity to areas to be rehabilitated (refilling where possible) - Dug up areas shall be promptly and properly restored - Re-plant degraded areas with local species common in the area to complement natural vegetation regeneration to improve ground cover. - Beautiful gardens should be created within substations - Re-vegetate all finalized areas on an on-going basis 	<ul style="list-style-type: none"> -To rehabilitate the site upon its initial status -To restore the project sites -Landscape restoration 	-Contractor	-Immediate after construction
		Monitoring Program	<ul style="list-style-type: none"> - To check if stockpile topsoil in all area is refilled and proposed re-vegetation plan is implemented. 	To ensure that site is restored upon its initial status and community confirm	-Supervisor	After construction activities

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
				that it is in good state		
Traffic Management	Construction	Management Phase	<ul style="list-style-type: none"> - Check and ensure the drivers have the right qualifications (related driving license) and experience - Ensure all entry and exit movements to and from traffic streams are in a Contractor order with the requirements of safe working practices - Ensure that a 20 km/hour speed restriction is imposed at the work site and in a Contractor order with traffic guides - Ensure that maintenance of vehicles is done on time and all vehicles have certificate for technical check-ups 	<ul style="list-style-type: none"> -To ensure their efficient and quality -To implement Rwanda Traffic rules -To ensure traffic security and reduce air pollution -To guide and facilitate 	Contractor	Before recruitment & PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<ul style="list-style-type: none"> - To install traffic signage and speed limits where necessary; - Training on rules and regulations relating to traffic and road safety. 	traffic movements in residential areas		
		Monitoring Program	<ul style="list-style-type: none"> - To assess if all drivers have driving license and trained on the traffic management plan as required by the project; - To verify if all vehicles/ machines are respecting proposed speed limit; - To control all vehicles/ machines about maintenance requirements and 	-To assess the qualification of drivers -To assess compliance of rules -To ensure that all vehicles are	Supervisor	PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			validity of technical checking; - To check if traffic signage are installed where necessary.	maintained properly -To ensure traffic security		
Waste Management	Construction	Management phase	- Separate hazardous and non-hazardous, degradable and non-degradable waste; - Sensitize workers to reduce waste during their daily activities; - Reuse and Recycling should be applied wherever possible; - Mobile toilets should be installed and offsite treatment is recommended. It must be ensured that oil waste generated on site is appropriately managed and either disposed of at appropriately licensed facilities or recycled for reuse. The waste expected from the	-To facilitate waste management -To use materials efficiently -To minimize waste -To manage workers waste -To avoid ground	Contractor	PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			upgrade includes used oil, contaminated soil and building rubble	water contamination		
		Monitoring Program	<ul style="list-style-type: none"> - To check if waste are identified, sorted and stored in labeled containers; - To check if hazardous waste are stored separately to non-hazardous waste; - To assess number of workers trained on waste management; - To check if a contract is signed between contractor and company accredited to transport waste from the site to landfill; - To assess how 7"R" is implementing during construction phase; - Number of Mobile toilets and their accessibility 	<ul style="list-style-type: none"> -To assess waste management at source To assess how hazardous waste managed -To supervise trainings -To assess if contract is signed with accredited company -To ensure best practices of Waste 	Supervisor	PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
				management -To assess quantity and quality of mobile toilets as this is a linear project		
	Decommissioning	Management Phase	<ul style="list-style-type: none"> - Waste should be transported to the respective district landfills by authorized company - Ensure no new material with PCBs supplied and used - For existing with Pure Polychlorinated Biphenyls (PCBs) as well as redundant PCB equipment must be disposed of as hazardous material at licensed facilities for further incineration by authorized entity 	<ul style="list-style-type: none"> -To dispose waste in approved areas/Land fill/Dump site -To incinerate PCB 	Contractor	PLC & After construction and waste from transformers

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			(REMA). Now, this activity is operated in CIMERWA Bugarama			
		Monitoring Program	- To check if all PCBs are treated as per national and international requirements	-To ensure that all related PCB are incinerated	REMA	After construction
Hygiene and Sanitation	Construction	Management Phase	- Workers shall be provided all necessities for hygiene and sanitation (clean water, soap, toilets and other washing facilities)	-To prevent waste related infections and transmission of pathogens, viruses including current Corona Virus - Regular hand washing with clean water and soap and/or Sanitizers	Contractor	PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
Air Quality	Construction	Management Phase	<ul style="list-style-type: none"> - Drivers should be trained to switch off trucks not in active use; - Trucks transporting construction materials should be enclosed in order to minimize dust; - Control speed of construction vehicles; - Regular maintenance of tracks & vehicles should be done and will ensure that all vehicles have valid technical checkup certificate; - Watering should be continuously done to reduce dust; - It will be mandatory to wear appropriate PPE for workers working in dusty area 	<ul style="list-style-type: none"> -To reduce tracks' exhaust -To reduce dust emission -To reduce tracks' exhaust -To reduce dust emission -To protect workers 	Contractor	PLC
		Monitoring Program	<ul style="list-style-type: none"> - Number of vehicles with technical checkup certificate 	<ul style="list-style-type: none"> -To recommend way forward 	Supervisor	PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<ul style="list-style-type: none"> - Visible particulate matter in the air and report with pictures and video; - To assess if watering practices are done as required; - Number and status of PPE 	<ul style="list-style-type: none"> -To ask further actions -To reduce Dust -To ensure no health problems within workers 		
	Decommissioning	Management Phase	<ul style="list-style-type: none"> - Tracks transporting construction materials should be enclosed in order to minimize dust; - Watering should be continuously done to reduce dust; - It will be mandatory to wear appropriate PPE for workers working in dusty area 	<ul style="list-style-type: none"> -To minimize dust -To protect health of workers and visitors 	Contractor	Decommissioning
		Monitoring Program	<ul style="list-style-type: none"> - Visible particulate matter in the air and report with pictures and video; 	<ul style="list-style-type: none"> -To ask further actions -To ensure no health 	Supervisor	PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<ul style="list-style-type: none"> - To assess if watering practices are done as required; - Number and status of PPE 	problems within workers		
Noise Management	Construction	Management Phase	<ul style="list-style-type: none"> - All construction activities should respect Rwanda noise standards; - High noisy activities should be done on day basis; - Workers in noisy area should wear appropriate PPE; - Use low sound machines during construction activities; 	<ul style="list-style-type: none"> -To respect national requirements -To avoid any disturbance of community -To protect health of workers 	Contractor	LP
		Monitoring Program	<ul style="list-style-type: none"> - To assess if noise emitted by construction activities are falling into Rwanda Noise standards 	<ul style="list-style-type: none"> -To monitor noise by using noise level meter -To check if any 	Supervisor	PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<ul style="list-style-type: none"> - To check if no high noisy activity is done during night; - To assess number and quality of PPE using by workers in noisy area; 	disturbance happened -To protect workers		
	Decommissioning	Management Phase	<ul style="list-style-type: none"> - All activities should respect Rwanda noise standards; - High noisy activities should be done on day basis; - Workers in noisy area should wear appropriate PPE; 	-To respect national requirements -To avoid any disturbance of community -To protect health of workers	Contractor	PLC
		Monitoring Program	<ul style="list-style-type: none"> - To assess if noise emitted by construction activities are falling into Rwanda Noise standards - To check if no high noisy activity is done during night; 	-To monitor noise by using noise level meter -To check if any disturbance happened	Supervisor	PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			- To assess number and quality of PPE using by workers in noisy area;	-To protect workers		
Labor Force Management	Construction	Management Phase	<ul style="list-style-type: none"> - Any kind of discrimination is strictly prohibited during construction activities; - It is prohibited to use children under 18 years (-18) in construction activities as stipulated by Rwanda and international laws especially ILO; - Health and safety protocol should be well trained and explained to all workers; - Working contracts should be signed between each worker and the contractor; 	<ul style="list-style-type: none"> -As per national labor law -As per national labor law -To make workers be familiar with OSH requirements -Very critical to respect workers' rights 	Contractor	PLC PLC & Before commence ment of works

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<ul style="list-style-type: none"> - Wages should be paid on time and any extra hour should be paid; - Number of working hours per week not to exceed 40 hours - Health and Accident insurances should be given to all workers; - All relevant social security regimes should be applied as per Rwanda rules and regulations; - Grievance log and mechanisms should be available on site and to be easily accessed by all workers. 	<ul style="list-style-type: none"> - To protect health of workers - To facilitate any claim where necessary 		
		Monitoring Program	<ul style="list-style-type: none"> - To check number of discrimination cases - To assess number of children on works - To assess number of workers aware of HS Protocol 	<ul style="list-style-type: none"> - To apply laws - To propose further actions 	Supervisor	PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<ul style="list-style-type: none"> - To assess number of workers with and without contracts; - To assess number of workers delayed to receive their salaries - To assess number of workers who are not paid overtime hours; - To assess number of workers who have health and accident insurance; - To assess number of complains and how are addressed (# of pending cases) 	-To apply laws		
Occupational Health and Safety	Construction	Management Phase	<ul style="list-style-type: none"> - Provision of Health and Safety Officer - Provide trainings related to HIV/AIDS, GBV and Children Protection (CP) - Avail condoms to construction staff - Work instructions before working day 	<ul style="list-style-type: none"> -To implement OHS on daily basis -To comply with OSH laws -To prevent HIV and NCD 	Contractor	PLC Before construction Every morning

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<ul style="list-style-type: none"> - Provide Personal Protective Equipment (PPE) for all workers on the site, and visitors as appropriate - Incident/accident reporting through keeping log of incidents/accidents and remedial actions (in the event of an accident) - Provision of fire safety system that includes training, firefighting equipment; regular maintenance of machinery, vehicles and equipment; and no burning activities to be allowed close to or within the site; - Implement tool box talk; - MoU with nearest hospital/clinic should be signed 	<ul style="list-style-type: none"> -To protect health of workers -To assess incidents/accidents and take actions -To recap previous and plan actual day -To help in case of accident -For precaution 		

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<ul style="list-style-type: none"> - Emergency procedures and communication protocols should be in place prior to construction 			
		Monitoring Program	<ul style="list-style-type: none"> - To assess if all workers are trained on health and safety measures; - To check if all required PPE are available and in good conditions; - Monitor incident/accident log and actions taken; - To check number and status of first aid kits and check if there are staff trained to use FAKs; - Check how tool box talk is implemented; - To check if contractor is in contact with nearest Hospital or clinic and validity of MoU between both parties 	<ul style="list-style-type: none"> -To ask further actions -To protect workers -To check how issues were settled -To check FAK quantity and status -To assess how it conduct -To ensure emergency is there 	Supervisor	PLC & Before works Every morning

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Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<p>regarding their handling, transport and storage. The Contractor shall meet these safety requirements under all circumstances. All equipment transported shall be clearly labeled as to their potential hazards according to specifications. All the required safety labeling on the containers and trucks used shall be in place.</p> <ul style="list-style-type: none"> - The Contractor will ensure that all the necessary precautions against damage to the environment and injury to persons are taken in the event of an accident and shall supply a method statement to that effect. 			

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
	Decommissioning	Management Phase	<ul style="list-style-type: none"> - Hazardous materials will be labeled and properly marked. - Storage areas are to be fitted with spill containment systems. - Storage areas are to be paved, fenced and marked. - Storage areas should be inspected daily. - All chemicals must be handled in accordance with the applicable MSDS (Material Safety Data Sheets) - All equipment moved onto site or off site during the project is subject to comply with international requirements. Oil filled equipment as well as capacitor cans have specific safety requirements regarding their handling, transport and 	<ul style="list-style-type: none"> - To facilitate management and treatment -To avoid contamination, leachate, any accident -To inspect status 	Contractor	PLC & Daily basis

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			storage. The Contractor shall meet these safety requirements under all circumstances. All equipment transported shall be clearly labeled as to their potential hazards according to specifications. All the required safety labeling on the containers and trucks used shall be in place.			

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
Emergency Preparedness and Response	Construction	Management Phase	<ul style="list-style-type: none"> - The identification of the emergency scenarios - Training emergency response teams - The identification of emergency contacts and communication systems - The procedures for interaction with government authorities - Providing emergency equipment and facilities Note: All workers must be adequately trained in the correct use of such equipment - Provide the potentially affected community with the relevant information on appropriate behavior and safety measures will be adopted in the event of an accident 	<ul style="list-style-type: none"> -To communicate the right scenario -To facilitate evacuation - To deal in case of emergency -To rescue them in case of emergency -To prevent lightning 	Contractor	Before works & Emergency period PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<ul style="list-style-type: none"> - All buildings and steel structures shall be provided with lightning conductors, arrestors and earthing probes in keeping with an acceptable standard. - All electrical equipment shall be earthed in keeping with an acceptable standard. 			
		Monitoring Program	<ul style="list-style-type: none"> - To assess number of workers trained on emergency scenarios and responses; - Number and status of emergency equipment 	-To ask further action when necessary	Supervisor	Before works PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			available and trained workers to use them.	-To ensure that protection is efficient		
	Decommissioning	Management Phase	<ul style="list-style-type: none"> - The identification of the emergency scenarios - The identification of emergency contacts and communication systems - The procedures for interaction with government authorities - Providing emergency equipment and facilities Note: All workers must be adequately trained in the correct use of such equipment - Provide the potentially affected community with the relevant information on appropriate behavior and safety measures 	<ul style="list-style-type: none"> -To communicate the right scenario - To deal in case of emergency -To use in case of emergency -To rescuer them in case of emergency -To prevent lightning 	<ul style="list-style-type: none"> Contractor Contractor 	<ul style="list-style-type: none"> Emergency period PLC & Before works

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<p>will be adopted in the event of an accident</p> <ul style="list-style-type: none"> - All electrical equipment shall be earthed in keeping with an acceptable standard. 			
		Monitoring program	<ul style="list-style-type: none"> - Number and status of emergency equipment available and trained workers to use them. 	-To ensure that protection is efficient	Supervisor	PLC
Stakeholder Engagement on emergency	Construction	Management phase	<ul style="list-style-type: none"> - Meetings with local community informing the commencement of construction activities; - Meetings with local community on emergency preparedness and response - Undertake continued stakeholder consultation during construction phase of the project using the appropriate communication mechanisms with 	<p>-To inform community the schedule and job opportunity</p> <p>-To explain emergency</p> <p>-To update them on the progress of works</p>	Contractor	Before works & PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			directly affected communities and other interested parties			
Local Recruitment	Construction	Management phase	<ul style="list-style-type: none"> - Recruitment scheme should be communicated to local community in advance; - Local community should be prioritized during recruitment; - People affected by the project during expropriation should be highly prioritized to get job; - Equal chance should be given to women and men during recruitment; - Note that some technical activities require advanced skills should only depend on knowledge and experience not only being on the list of affected people; 	<p>-To make them prepared of the opportunity</p> <p>As per RAP requirements</p> <p>-To implement gender balance</p> <p>-To perform the assignment efficiently</p> <p>-To share knowledge and experience</p>	Contractor	Before works & PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<ul style="list-style-type: none"> - Training should be given to local people during construction activities. 			
		Monitoring program	<ul style="list-style-type: none"> - To assess number of local people recruited (% of local people out of all workers); - To assess number of affected people recruited, their % out of all workers; - To assess number of women recruited, their % out of all workers 	<ul style="list-style-type: none"> -To verify if local recruitment was respected -To check PAPs are among recruited workers -To check gender balance among workers 	Supervisor	PLC
Old Equipment	Construction	Management phase	<ul style="list-style-type: none"> - All old equipment removed during upgrading shall be stored in such a way as to prevent pollution of the environment. - Oil containing equipment shall be stored to prevent 	-To avoid pollution and related chemical hazards	Contractor	PLC

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<p>leaking or be stored on drip trays should such equipment already be leaking. All scrap steel shall be stacked neatly and any disused and broken insulators shall be stored in containers.</p> <ul style="list-style-type: none"> - Once material has been scrapped for removal, the Contractor shall ensure that any equipment containing pollution causing substances is removed in such a way as to prevent spillage and pollution of the environment. The Contractor shall also be equipped to contain and clean up any pollution causing spills. 			
Site Reinstallation	Rehabilitation	Management Phase	<ul style="list-style-type: none"> - Use topsoil (put aside before) to cover backfilled areas; 	-To not wait all sites, completed	Contractor	Immediate after use of each site

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<ul style="list-style-type: none"> - For all components of the project, the contractor is obliged to restore sites back to their previous/ natural conditions. - To avoid further hazards, harm and accidents, at closure, restore the site to original state or specific state according to contract with the landowner/community and sign with them a «receive in good state» form with confirmation photos of restored site. 	<ul style="list-style-type: none"> site to restore asap to avoid hazards to owners and communities; -For confirmation that they received their land at good state 		
		Monitoring program	<ul style="list-style-type: none"> - To assess if reserved topsoil is back used to restore degraded area by construction activities; - To check and consult local community if 	<ul style="list-style-type: none"> -To ensure that sites are restored -To ensure that community confirm the 	Supervisor	The end of rehabilitation phase

Aspect	Phase	Program	Action/Targets	Rationale	Responsibility	Time frame
			<p>sites are restored as per their initial status;</p> <ul style="list-style-type: none"> - Assess any related source of incidents/accidents from used pits sites 	restoration done successfully		

REFERENCES

1. National Institute for Occupational Safety and Health (NIOSH)/OSHA/U.S. Coast Guard (USCG)/EPA, Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, Publication No. 85-115, 1985.
2. National OSH Act, Rwanda, 2010
3. Rwanda, National OSH Policy, 2009
4. REG, 2015: Electricity reticulation standards.
5. RURA, Rwanda Grid Code(Pg. 123- pg231),
6. Title 29, Part 1910 of the Code of Federal Regulations (29 CFR 1910), Occupational Safety and Health Standards (with special attention to Section 120, Hazardous Waste Operations and Emergency Response)
7. Title 29, Part 1926 of the Code of Federal Regulations (29 CFR 1926), Safety and Health Regulations for Construction.
8. WB environmental , Health and Safety Handbook, 2010

APPENDICES

APPENDIX 1: Health and Safety implementation report contents

1. Risk Assessments (hazard identification)
2. Health & Safety Policy
3. Health and Safety Plans
4. Health & Safety Specifications
5. List of Safe Work Procedures (and where it is available)
6. In the case of modifications, the revised SHE Specifications and Risk Assessments
7. Appointments
8. Organogram indicating the relationships in terms of the 16.2 and person identified as the client if it is not the same person
9. List of S/Contractors (Mandatory)
10. Training Records on:
 - a. General safety/health Induction
 - b. Site / job specific induction based on the risk assessments outcomes / results
 - c. Job specific based on task specific requirements (specialist training).
11. Medical Examination Records
12. Inspection Results Records.

APPENDIX 2: Hazard and Risks Assessment Layout

Activity	Hazard (How Can It Happen)	Risk(What Can Happen)	Scoring (Low/ Medium/ High)	Control Measures	Responsible Person/Agent

APPENDIX 3: Sample signage and posters





APPENDIX 4: Basic Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE)

<u>Required Personal Protective Equipment</u>
Hard hat helmets
Safety belts
Masks
Hand Gloves
Safety glasses
Hi Visibility Safety vests/Reflector safety jackets
Safety Toed Work boots with ankle support
Ear plugs (when conditions warrant)
Safety goggles (with conditions warranty)
<u>Optional PPE and Safety tools Items*</u>
Back pack (for storing small PPE items)
Sun visor
Snake chaps
Sunscreen (highly recommended)
Small flash light
Mylar blanket (space blanket)
Ladders

Barricades
Other related safety tool kits

***Optional PPE is highly recommended based on conditions encountered**

APPENDIX 5: Injury information data sheet

Injury information data sheet

No	Article	Quantity	Brief info/Action taken
1	Number of total injured		
2	Number of Medical Injured		
3	Number of lost time injured		
4	Number of first aid injured		
5	Number of motor vehicle accidents		
6	Number of Occupational diseases		
7	Number of property damage incidents		
8	Number of environmental incidents		
9	Number of public incidents		
10	Number of near let passes		
11	Number of electrical contacts		
Any other important info:			

Appendix 6: Waste Management identification Plan

Plan identification

Agent/Institution	Addresses	Additional info.
Company Name:		
Contact Person:	Telephone #:	
Project Location:		
Contractor:		
Contact Person:	Telephone #:	
Recycling Coordinators:		
Architect:		
Contact Person:	Telephone #	
Designated Recycling Coordinators:		