
ANNEXCURE C

**Occupational Health and Safety Act:
OH&S Specifications by the Employer**

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

HEALTH AND SAFETY SPECIFICATION FOR :
OLIFANTSPORT AND EBENEZER WATER SUPPLY SCHEMES:
REPLACEMENT OF SPECON PIPELINE PHASE 3

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1. PROJECT AND SCOPE OF WORK DETAILS

1.1 Appointment of Health and Safety Agent

Gatsheni Sizwe (Pty) Ltd has been appointed by Sigodi Marah Martin Management on behalf of Lepelle Northern Water; Olifantspoort and Ebenezer Water Supply Schemes: Polokwane Emergency Intervention to perform the duties of Health and Safety Manager or Agent.

In terms of Construction Regulations, 2014:

Regulation 5(1), 5(5), 5(6) and 5(7)

Where a construction work permit is required as contemplated 3(1), the client must, without derogating from his or her health and safety responsibilities or liabilities, appoint a competent person in writing as an agent to act as his or her representative

5 (1) a client must:

- (a) Prepare a baseline risk assessment for an intended construction work project;
- (b) Prepare a suitable, sufficiently documented and coherent site-specific health and safety specification for the intended construction work based on the baseline risk assessment contemplated in paragraph

Therefore Gatsheni Sizwe (Pty) Ltd on behalf of Lepelle Northern Water has therefore prepared the following specification below, must be provided and adhered to by Principal Contractor by means of a Health and Safety File, Plan and Health and Safety Compliance on the following project: ***Lepelle Northern Water: Olifantspoort and Ebenezer Water Supply Schemes: Specon Pipeline Replacement Phase 3.***

The objective of this specification is to ensure that Principal Contractor entering into a contract with Lepelle Northern Water achieves and maintains an acceptable level of occupational health, safety and environmental performance and compliance.

NOTE PRINCIPAL CONTRACTOR AND ITS SUB-CONTRACTORS

The SHE specification provided by Gatsheni Sizwe (Pty) Ltd on behalf of Lepelle Northern Water is the minimum requirement. Principal Contractor must develop an HSE File and Plan that meets all the requirements and all relevant and applicable legislation. Gatsheni Sizwe (Pty) Ltd and Lepelle Northern Water in No way assumes Principal Contractor Legal responsibilities and liability. Principal Contractor is accountable for the quality, execution of the Health, Safety and Environmental program and management for its employees, sub-contractors and sub-contractors' employees. The SHE specification provides the minimum requirements and shall not be construed as exhaustive and all encompassing.

Principal Contractor must include a copy of the following documents:

- a) Construction Regulation, 2014
- b) OHS Act 85 of 1993
- c) Appointment Letter from Lepelle Northern Water
- d) Form of a Guarantee

1.2 Project Title as per Tender Document

Lepelle Northern Water: Olifantspoort and Ebenezer Water Supply Schemes: Specon Pipeline Replacement Phase 3

1.3 Project Description and Scope of Work

The objective of the Project is to fast-track implementation of the emergency measures to improve operational efficiency and to mitigate risks affecting water supplies to PLM and the neighbouring communities served by O&EWSS. This would be achieved by performing repairs and modification and provision of new infrastructure for the critical components of the water supply scheme, specifically Phase 3 of the Specon Pipeline Replacement Project for the last 7 km long section of the existing 800 mm dia pumping main from Olifantspoort WTW to Specon reservoir.



2. ROLES AND RESPONSIBILITIES

Lepelle Northern Water Project Manager: Gundo Motsoare

Project Manager on behalf of Lepelle Northern Water He/she is responsible for managing the contract with the Consulting Engineers, Health and Safety Consultants and Principal Contractor and ensure overall construction works are completed and Compliance with relevant legislation: General Conditions of Contract for Construction Works, 2015 and OHS Act 85 of 1993 and Construction Regulations 2014. In regard regulation 5 Duties of the Client and Particulars of Contract including but not limited to the following:

The contractor must comply with the provisions and contractual arrangements of the Occupational Health and Safety Act (OHSA) as well as the Environmental Management Act (NEMA): Waste Management.

All workers of any project undertaken as part of this bid must undergo a medical fitness test by an Occupational Health and Safety Practitioner who is registered with the South African Nursing Council (SANC). The medical test certificates must be presented by the Principal Contractor to Lepelle Northern Water.

Lepelle Northern Water Health and Safety Manager:

Health and Safety Manager at Lepelle Northern Water responsible for implementation of Health and safety in accordance with OHS Act 85 of 1993 and Construction Regulations 2014 on construction site on behalf of

LEPELLE NORTHERN WATER

Consulting Engineers: Sigodi Marah Martin Management

Sigodi Marah Martin Management appointed by LEPELLE NORTHERN WATER for overall implementation and cost management of the Construction Site on behalf of LEPELLE NORTHERN WATER in accordance with General Conditions of Contract for Construction Works, 2015, OHS Act 85 of 1993, Construction Regulations 2014 and COLTO Standard Specifications for Road and Bridge Works for State Authorities 1998.

The principal contractor, which is Principal Contractor, executes the construction works as per the tender and relevant legislation. Including duties provided in regulation 6 of the Construction Regulations, 2014

Health and Safety Consultants: Gatsheni Sizwe (Pty) Ltd

Gatsheni Sizwe(Pty)Ltd has been appointed by Sigodi Marah Martin Management on behalf of Lepelle Northern Water : Olifantspoort and Ebenezer Water Supply Schemes: Polokwane Emergency Intervention to perform the duties of Health and Safety Manager or Agent to ensure that Principal Contractor adheres to all Health and Safety standards , legislation required and must be complied with as per relevant and applicable legislation in terms Health and Safety *Inter Alia* OHS Act 85 of 1993 , National Environmental Management Act 1998 (Act 107 of 1998) and Construction Regulations 2014

Principal Contractor: Principal Contractor

Principal Contractor is the appointment principal contractor by LEPELLE NORTHERN WATER to execute the civil works as per tender and the contractor to which compliance with the Health and Safety legislation on site will be required, in executing civil works at the Lepelle Northern Water: Olifantspoort and Ebenezer Water Supply Schemes: Polokwane Emergency Intervention

Principal Contractor carries primarily accountability and responsibility for ensuring full compliance to the provision of the OHS Act as contemplated by Section 37(2) written agreements and Construction Regulation (7). The section 37(2) of the OHS Act agreement must be signed by Lepelle Northern Water and Principal Contractor be part of the Health and Safety File

3. COMPLIANCE

Gatsheni Sizwe (Pty) Ltd on behalf of Lepelle Northern Water requires all of its Contractors to comply with legislation as part of the contract. All expenses to the Contractor, which result from compliance with this legislation as well as special requirements specific to the site, will be for the Contractors account.

No claim or standing time will be accepted as a result of any costs or delays being incurred due to Principal Contractor their sub-contractors not complying with legislation, this SHE specification or their SHE Plan approved by the Lepelle Northern Water and Gatsheni Sizwe (Pty) Ltd

Should Principal Contractor appoint a sub-contractor, the Principal Contractor would then have the same role and responsibility in relation to the sub-contractors on the Contract No: Lepelle Northern Water: Olifantspoort and Ebenezer Water Supply Schemes: Polokwane Emergency Intervention

The requirements within this specification should not be considered to be exhaustive and Gatsheni Sizwe (Pty) Ltd on behalf of Lepelle Northern Water reserves the right to add, delete or modify conditions where it is considered to be appropriate.

The following applicable legislation has been identified which may impact the Project. The list is not an exhaustive:

- Construction Regulations, 2014
- The Constitution of the Republic of South Africa (particularly Section 24 of the Bill of Rights).
- Occupational Health and Safety Act 1993 (Act 85 of 1993) and its Regulations.
- National Environmental Management Act 1998 (Act 107 of 1998).
- National Road Traffic Act (93 of 1996) National Environmental Management: Waste Act 59 of 2008
- National Environmental Management Act 107 of 1998 and Amendments
- Air Quality Act 39 of 2004
- Hazardous Substances Act 15 of 1973
- National Water Act 36 of 1998
- Conservation of Agricultural Resources Act 1983 (Act 43 of 1983).
- Mine Health and Safety Act 29 of 1996
- Compensation for Occupational Injuries and Diseases Act No 130 of 1993 (COIDA)
- Applicable South African National Standards (SANS).
- ISO 9001:2008 -Quality Management Systems requirements
- ISO 14001:2004-Environment Management Systems requirements

- OHSAS 18001:2007 -Occupational Health and Safety Management Systems Requirements

Compliance with the **Occupational Health and Safety Act No.85 of 1993 and the Disaster Management Act, of 2002, and the subsequent regulations.** This specification is compiled in line with the COVID-19 Baseline Risk Assessment. Principal Contractor must use it as a reference document when developing their COVID-19 response plans.

No	Activity	Responsibility	Target date
1	Procurement of thermometers, masks, sanitizers and hand soap and other COVID 19 supplies	Principal Contractor	
2	Review risk assessments to include risks associated with COVID 19	Principal Contractor	
3	Development of COVID 19 standard operating procedures & review SHE plan (in line with these guidelines)	Principal Contractor	
4	Verification of compliance	Principal Contractor	
5	Approval by OHS to resume construction sites	Principal Contractor	
6	Resumption of construction activities	Principal Contractor	
7	Re-induction of all contractors	Principal Contractor	
8	Toolbox talks	Principal Contractor	
9	Regular cleaning and disinfection of surfaces	Principal Contractor	

4. LETTER OF GOOD STANDING –(COIDA)

The Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (**COIDA**) provides for compensation for disablement caused by occupational injuries or diseases sustained or contracted by employees in the course of their employment, or for death resulting from such injuries or diseases. Principal Contractor must have their Letter of Good Standing in the Health and Safety file including the Section 6 (A)-Annexure 13 W.Cl.2 and other related forms

5. NOTIFICATION OF CONSTRUCTION WORK

In terms of Construction Regulations, 2014:

4(1) A contractor who intends to carry out any construction work other than work contemplated in regulation 3(1), must at least 7 days before that work is to be carried out notify the provincial director in writing in a form similar to annexure 2 if intended construction work will –

- Include excavation work;
- Include working at a height where there is risk of falling;
- Include the demolition of a structure
- Include the use of explosives to perform construction

Principal Contractor must therefore provide Notification of Construction in terms of Construction Regulations, 2014. Therefore, **No** construction works shall commence before notification of construction work has been submitted at the relevant Department of Labour by the Principal Contractor. The copy of the notification stamped on both pages must be provided in the Safety File.

6. CONSTRUCTION WORK PERMIT

Regulation 5(1), 5(5) and 5(6)

Where a construction work permit is required as contemplated 3(1), the client must, without derogating from his or her health and safety responsibilities or liabilities, appoint a competent person in writing as an agent to

act as his or her representative

Construction Regulation 3 is applicable:

3 (1) A client who intends to have construction work carried out, must at least 30 days before that work is to be carried out apply to the provincial director in writing for a construction work permit to perform construction work if the intended construction work will –

- (a) Exceed 365 days will involve more than 3600-person days of construction work; or
- (b) The tender value limit is grade 6,7,8 or 9 of the Construction Industry Development Board (CIDB) grading

Therefore, in terms of Lepelle Northern Water: Olifantspoort and Ebenezer Water Supply Schemes: Polokwane Emergency Intervention

The client will apply for permit due to the requirements of the regulation.

7. NON-CONFORMANCES / WORK STOPPAGE

Gatsheni Sizwe (Pty) Ltd reserves the right to stop work and issue a non-conformance report whenever safety, health or environmental violations are observed for both Principal Contractor and their sub-contractors. Expenses incurred as a result of such work stoppage and standing time shall be for the Principal Contractor account. Any non-conformances/findings/observations found in these audits/inspections on sub-contractors shall be raised and discussed with the relevant Principal Contractor.

The conditions that lead to work stoppages are based on but not all encompassing:

Management of change – this is when there are changes to the work environment (e.g.: climatic changes) and/construction work (e.g.: modifications to the design), in any phase of the construction project, and/or amendments with regulations and/or legislative amendments; unsafe acts/behaviors;

Unsafe working conditions: Principal Contractor and subcontractors shall ensure that no other work is being performed during this time. Should the estimated time from the outset to make the area safe where life threatening/imminent danger situations exist, then the area will be barricaded and a sign placed with the wording “Unsafe Area – Authorized Access Only”.

Principal Contractor shall address the unsafe working condition and then revise the relevant sections in the SHE Plan to accommodate the changes.

8. HSE POLICIES

Principal Contractor and sub-contractor shall each have a SHE Policy authorized by OHS Act Section 16(1) appointee that clearly states overall, SHE objectives and commitment to improving Safety, Health, Environment and Quality performance and Compliance. Including but not limited to:

- HSE Policy
- Disciplinary policy for employees transgressing occupational health, safety and environmental requirements
- Drug, alcohol & substance abuse policy
- Smoking policy
- HIV/AIDS policy

9. SHE PLAN

In terms of Construction regulation 7(1): Principal Contractor and any sub-contractors appointed must provide a Health and Safety Plan which must constantly be reviewed as per regulation:

- (a) Provide and demonstrate to the client a suitable, sufficiently documented and coherent site-specific health and safety plan, based on the clients documented health and safety specifications contemplated in regulation 5(1)(b), which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the principal contractor as work progresses;
- (b) Open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, which must be available on request to an inspector, the client, the client's agent or a contractor

Including but not limited to the following documentation:

- Duties and safety responsibilities of all appointed persons on the project.
- Selection, placement and training procedures, including induction and on-going training in 'Basic Safe Work' and Occupational Health and Safety training for newly hired or promoted supervisors.
- Baseline risk assessments, review & monitoring plan & safe work procedures.
- Occupational health and safety goals for the project and arrangements for monitoring and reviewing occupational health and safety performance.
- Occupational Health and Safety communications and meetings, including daily safe task instructions and project safety meetings.
- Assessment of sub-contractors, including requirements for safety plans
- Nomination of personnel to carry out safety inspections. The task may be shared with other duties and provided within the resources of individual gangs and may be rotated
- Rules and regulations including safety procedures the Contractor has in place for recurring work activities.
- Personal protective equipment rules.
- Control of dangerous and hazardous substances.
- Hazard identification and risk control, such as Risk assessments, Daily Safe Task Instructions and communication.
- Audits to ensure compliance with safety plans.
- Daily site safety inspections and audits.
- Inspection of plant, tools and equipment prior to introduction to site and regularly thereafter.
- Accident incident reporting, recording, investigation and analysis, which ensure that corrective action, are taken and this action is communicated to report initiators.
- First aid arrangements.
- Evacuation and emergency planning
- Substance abuse program
- Record keeping
- Personal Protective equipment arrangements
- Workers' welfare facilities
- Induction and toolbox talk's arrangements
- Training arrangements.

b) Fall Protection Plan

Principal Contractor must include a Fall Protection Plan as contemplated in regulation 10. Therefore, must appoint a competent person responsible for the preparation of the plan include the requirements in regulation 10(2), continuously adhere and implement the fall protection plan as per regulation 10(3), 10(4) and 10(5).

c) Traffic Management Plan

The scope - the safe movement of vehicular and pedestrian traffic, protection of workers from passing traffic, provision for access to properties located within the limits of Network Road. The design, construction, maintenance and implementing of any necessary temporary roadways and detours, the provision of traffic controllers, the installation of temporary signs, road markings, lighting, safety, Jersey, temporary speed humps and solid barriers as per Road Traffic Act, 1989 (Act No. 29 of 1989), Road Traffic Sign Applications.

Principal Contractor must provide a comprehensive and detailed Traffic Management Plan and must include Traffic Control Plans, Emergency Readiness Plan, Objectives of the Traffic Management Plan, Traffic Management Officer, Communications with community, stakeholders. The traffic Management must be in accordance with the South African Road legislation and Signs Manual as modified to suit site conditions. Application of the Act shall apply throughout the Republic: Provided that any provision thereof shall only apply to those areas of the Republic in respect of which the Road Traffic Act, 1989 (Act No. 29 of 1989), did not apply before its repeal by section 93, as from a date fixed by the Minister by notice in the *Gazette*.

10. APPOINTMENTS AND COMPETENCIES

Principal Contractor must submit in writing the appointments and competences of all competent person appointed, which form part of the SHE Plan in terms of Construction Regulation 8. An organogram must also submit including all legislative appointments, defined responsibility structure, OHS meetings and period of appointment. All appointees and appointers must sign the legislative appointments.

Principal Contractor Chief Executive Officer, in terms of Section 16(1) of the Occupational Health and Safety Act (Act no 85 of 1993), is to ensure that the Employer (as defined in the Occupational Health and Safety Act (Act no. 85 of 1993) – hence the Contractor) complies with the Occupational Health and Safety Act (Act no 85 of 1993) and Construction Regulations (2014) as well as all other applicable legislative requirements.

a) Construction Managers

Principal Contractor, appointed in terms of Construction Regulations is responsible for implementing and maintaining the SHE Plan. Regulation 8 (1) A principal contractor must in writing appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed.

No construction manager appointed under sub regulation 8(1) may manage any construction work on or in any construction site other than the site in respect of which he or she has been appointed.

Regulation 8(7): Principal Contractor Construction managers, in writing must appoint construction supervisors responsible for activities on site and ensuring compliance with occupational health and safety regulations on site. Regulation 8(8) Principal Contractor considering and depending on the size of the project or construction site must appoint in writing one or more competent employees for different sections to assist the construction supervisor envisaged in sub regulation (7)

REGULATION	APPOINTMENT /COMPETENCIES /RESPONSIBILITY
Chief Executive Officer (OSH Act 16(1))	Chief Executive Officer -Principal Contractor
Contract Director / Manager (OSH Act 16(2))	Contract Director / Manager- Principal Contractor
1. 5(1)(K)	Lepelle Nother Water appointment of Principal Contractor
2. 8(1)	Construction Manager – Principal Contractor: Managing Construction works and ensuring Health and Safety Compliance
3. 8(2)	Assistant Construction Manager and Traffic Management Officer – Principal Contractor: Assist the Construction Manager
4. 8(5)	Health and Safety Officer - Principal Contractor: Ensuring Health and Safety Compliance
5. 8(7)	Construction Supervisor – Principal Contractor:

	Supervision of certain type of construction works
6. 7	Appointment and management of Sub-contractor - Principal Contractor
7. 9(1) Risk Assessor	Risk Assessor to conduct risk assessments - Principal Contractor
8. 10(1)(a)	Appointee for preparation of fall protection plan - Principal Contractor
9. General Safety Regulation 3	First Aider - Principal Contractor
10.12(1) Temporary works designer	Appointee for inspect and approve erected temporary works on site - Principal Contractor
11.12(2) Temporary works Supervisor	Appointee for Supervision of Temporary works on site - Principal Contractor
12. 12(3)(a) Temporary Works Erector	Erect temporary works on site - Principal Contractor
13. 12(3)(f) Temporary Works Inspector	Inspector of Temporary Works on site - Principal Contractor
14. 13(1)(a) Excavation Supervisor	Excavation Supervision - Principal Contractor
15. 13(2)(h) Excavation Inspector	Excavation Inspection - Principal Contractor
16.14(1) Supervisor demolition work	Demolition Supervision - Principal Contractor
17. 16(1) and 16 (2) Scaffold Supervisor, Erector, Inspector	Supervision, Inspection and Erection of Scaffolding - Principal Contractor
18. 14(11) Competent Person for Explosives	Legally certified competent explosives person Principal Contractor
19. 20(1) Batch Plant Supervisor	Supervision of Batch plant - Principal Contractor
20. 22(a) Crane Supervision	Certified Crane Supervisor Principal Contractor
21. 23(1)(d) Construction Vehicle and Mobile Plants Operator	Certified Plant Operator and Vehicle - Principal Contractor
22.24(d) Electrical Machinery Inspector	Inspection of Electrical Machinery - Principal Contractor
23. 24(e) Temporary Electrical Installations Inspector and Controller	Control all temporary electrical installations - Principal Contractor
24.28(a) Stacking and Storage Supervisor	Supervision of Stacking and Storing - Principal Contractor
25.29(h) Fire Equipment Inspector	Inspection of Fire Equipment - Principal Contractor

26.29(i) Fire extinguisher Users	Operator of extinguisher - Principal Contractor
27. Hand Tool Inspector	Inspection of Hand tool inspector - Principal Contractor
28. 20(2)(g)(i) Person to control and do the issuing and collection of Cartridges and nails/studs	Certified competent control of explosive equipment - Principal Contractor
29.21(2)(b) Explosive actuated fastening device inspector	Inspection of explosive device fastening- Principal Contractor
30. 21(2)(g)(i) Explosive actuated fastening controller	Controller of explosive device fastening- Principal Contractor
31. Explosive Operator	Operator of explosive device- Principal Contractor
32. General Safety Regulation 13A	Ladder Inspector- Principal Contractor

b) Construction Health and Safety Officers/ Practitioners

Regulation 8(5) and 8(6) Principal Contractor must appoint a full time Health and Safety Officer in writing that is registered with approved statutory body. Therefore, the appointed Construction Safety Officer must be registered with the statutory body approved by Chief Inspector the South African Council for Project and Construction Management Professionals (SACPCMP) and have SAMTRAC or safety diploma and at least 4 years relevant construction safety experience.

c) Occupational Health and Safety Representatives

Section 17 and Section 18 of the OHS Act provides for appointment of the Health and Safety Representative and functions thereof. Every employer who has more than 20 employees in his employment at any workplace, shall designate in writing for a specified period health and Safety representative for such workplace. Principal Contractor must therefore appoint a Health and Safety Representative if Principal Contractor employs on site on than 20 employees including sub-contractors and their employees. Shall appoint one SHE representative for every 50 employees or part thereof.

d) Health and Safety Committee

In regards to section 19 and section 20 of the OHS Act 85 of 1993 Principal Contractor must establish an occupational health and safety committee consisting of all the designated occupational health and safety representatives together with a number of management representatives. The management representatives shall not exceed the number of occupational health and safety representatives on the committee. The members of the occupational health and safety committee must be appointed in writing. Representatives from Gatsheni Sizwe (Pty) Ltd will act as co-opted members to the Health and Safety Committee meetings as and when required. Principal Contractor is required to compile a schedule for the statutory occupational health and safety committees for the duration of the project and supply the proposed schedule in the SHE Plan.

11. TRAINING

Inductions and Training must be submitted with SHE Plan and SHE File with all the registers for specific training, which will be conducted. Training is to be carried out as required by the Occupational Health and

Safety Act (Act no 85 of 1993) and the Construction Regulations (2014). All training courses required and attended are to be included in the principal contractor's SHE File. All members of Principal Contractor site management as well as all the persons appointed responsible for occupational health, safety and environmental management in terms of the Construction Regulations (2014) and other legislative requirements, will be required to attend a SHE System Induction training

Construction Site induction carried out by the Principal Contractor

The aim of this section is to outline expectations in respect of the scope of the training, which Principal Contractor and Sub Contractor employees receive. The scope of the training includes but is not limited to the type of work being performed and the relevant procedures. Additional to the requirements, will be that Principal Contractor and sub-contractors would have the appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training, certificates and are under competent supervision. Records of all training and qualifications of all contractor employees must be kept. Principal Contractor shall maintain comprehensive records of all employees under his control (including all employees of the sub-contractor) attending induction training.

Acknowledgement of receiving and understanding the induction must be signed by all persons receiving the induction respectively and the Induction Register be kept in the Health and Safety File.

When there is an amendment to the Acts and/or to the regulations, SHE specification and SHE plan, all affected staff shall undergo the relevant re-training. For appointees that do not meet the minimum competencies as indicated above: full compliance to the above competencies would be expected. A training plan must be submitted on a monthly basis to reflect progress of meeting the minimum training requirements.

Medicals

Prior to induction all Principal Contractor and Sub-contractor employees must undergo a pre-employment medical examination and found fit for duty. A copy of the certificate of medical fitness must be presented for permanent record at the induction venue and kept at Health and Safety File and site offices for permanent record.

Job specific induction carried out by the Principal Contractor/Sub-Contractor Supervisor on the site

Principal Contractor shall ensure that all his employees and his contractors' employees working on the site are adequately trained in the type of work/tasks to be performed. The training shall extend to include relevant procedures, hazard identification and risk assessment. They shall have the appropriate qualifications, certificates and are under competent supervision. Copies of records of appropriate training and qualifications for all employees must be kept and maintained.

Principal Contractor shall ensure that all his employees, agents and contractors have undergone the Project safety induction program prior to commencing work on site. Appropriate time must be set-aside for training (induction and other) for all employees.

All employees and visitors on site shall carry the proof of induction training. The relevant site Risk Control/SHE Training Officer shall keep a database of all records pertaining to induction and will inform contractors of pending expiry.

Principal Contractor shall ensure that all his employees and sub-contractor employees undergo general work induction with regard to the approved SHE plan, general hazards prevalent on the construction site, construction risk assessment, rules and regulations, and other related aspects. The induction should also include identification of sensitive features such as wetlands areas, red data species, graves, etc.

Principal Contractor will be required to ensure that before an employee commences work on the project that the supervisor in control with responsibility for the employee has informed the employee of his scope of authority, any hazards associated with the work to be performed as well as the control measures to be taken. This will include man- task specifications, the discussion of any standard task procedures or hazardous

operational procedures to be performed by the employee. Principal Contractor is to ensure that the supervisor has satisfied himself that the employee understands the hazards associated with any work to be performed by conducting task/job observations.

Other Training

All Operators, Drivers and Users of construction vehicles, mobile plant and other equipment must be in possession of valid proof of training. All employees in jobs requiring training in terms of the Act and Regulations must be in possession of valid proof of training.

The principal contractor is required to have a promotion and awareness program in place to create an occupational health and safety culture within employees E.g.: Toolbox Talks, Videos, Health and Safety circles.

12. CONTRACTOR'S SITE FACILITIES AND ACCESS CONTROL TO THE CONSTRUCTION SITE

Principal Contractor must manage site facilities as per Environmental Regulations for workplaces, Facility Regulation, Security Personnel, General safety regulation as framed under the OHS Act.

Principal Contractor must establish site access rules and implement and maintain these throughout the construction period. Access control must, amongst other, include the rule that non-employees will not be allowed on site unaccompanied.

Principal Contractor shall provide a guardhouse for a security working during the day and at night. The guardhouse should be in good condition and at-least meet minimum requirements as per environmental regulations for workplaces.

Temporary Facility

Ablution facilities, Site Offices and Amenities, lay down and Storage, Site Access, Temporary Site Services Principal Contractor employees are registered on the site access system and are issued with access certificates. Access certificates to be kept with the Contractor at all times within the site.

Principal Contractor and his sub-contractors shall adhere to the site traffic plan to ensure the safe movement of all construction related mobile plant. Principal Contractor shall adhere to the pedestrian and vehicle routings and Traffic Authority.

The project/site security arrangements are: Site Safeguarding: Nets, Canopies, Platforms, Fans, Barriers etc. to protect members of the public passing / entering the site

13. RISK MANAGEMENT AND ASSESSEMENTS

Regulation 9(1) A contractor must, before the commencement of any construction work and during such construction work, have risk assessments performed by a competent person appointed in writing, which risk assessments form part of the health and safety plan to be applied on site

Principal Contractor must identify the construction site SHE risks and hazards before commencing any construction works on site as per regulation 9 and his/her subcontractors to identify hazardous and potentially hazardous work operations. Principal Contractor needs to demonstrate that the site hazards and the contractor's activity risks and the mitigating measure have been considered in his risk assessments.

The Occupational Health and Safety Act (Act no. 85 of 1993) specifically requires that employers shall provide and maintain working environments that are safe and without risk to health. The general awareness of hazards needs to be raised as work ethic to maintain a safe and risk-free environment on an on-going basis. This is achieved by continuous risk assessments, a form of risk assessment that takes place as an integral part of day-to-day management.

There must be method statements or written safe work procedures for all the Principal Contractor activities

Emerging risks and hazards must be managed during construction work. Activity based risk assessments must be conducted by an appointed and competent person of the Principal Contractor on a regular basis. Principal Contractor prior to daily work beginning on site shall conduct Preliminary hazard identification.

Site Specific Health and Safety Hazards

Principal Contractor Site-Specific list may not be totally comprehensive and it is the duty of Principal Contractor to ensure that all the hazards are identified, before and during the project, and the necessary activity-based risk assessments are carried out. These risk assessments shall form part of the SHE Plan. The site-specific health and safety hazards are on continuous during the duration of the project.

Hazardous and potentially hazardous work operations and Emerging Risks

Principal Contractor shall identify hazards and potentially hazardous work operations. For each work operation Identified, the Contractor shall supply Risk Assessment, which shall:

1. Describe the operation to be performed in the sequence of the basic job steps.
2. Identify and rank the hazard or potential hazard.
3. A plan to review the risk assessments as the work progresses and changes are introduced.
4. Describe how the hazard will be managed therefore a documented plan and Safe Working Procedures, and its relevance to the risk assessment, to mitigate, reduce or control the risks and hazards that have been identified.
5. A plan to monitor the application of the Safe Working Procedures.
6. Signature of appointed competent person conducting risk assessment; and Signature of Principal Contractor management and employees involved in risk assessment.
7. Review plan; Based on the risk assessments, the principal contractor must develop a set of site-specific occupational SHE rules that will be applied to regulate the health, safety and environmental aspects of the construction work.
8. Identify the responsible person for each mitigation action.

The hazards and risk to which persons, plant, vehicles and facilities may be exposed during the construction should be identified and evaluated. The aspects and impacts resulting in environmental pollution or degradation should also be identified and evaluated. Measures to reduce or control these risks or hazards should be defined during this assessment.

Principal Contractor must ensure that all employees under his or her control are informed instructed and trained by a competent person regarding any hazard and the related work procedure and or control measure before any work commences, and thereafter at the times determined in the risk assessment monitoring and review plan of the relevant site.

During construction work, Principal Contractor, his sub-contractors or Lepelle Northern Water representative or agent may identify emerging hazards and risks. For each such newly identified hazard or risk, the Lepelle Northern Water representative or agent shall review the baseline site hazard identification and the relevant section(s) of the Baseline Risk Assessment during Audits. The hazard identification shall be submitted to the Principal Contractor who will review his own risk assessments and relevant sections of the SHE Plan, as well as those of the sub-contractors.

Principal Contractor representative or agent will prepare and submit to the Lepelle Northern Water representative or agent, both documents for approval.

Principal Contractor and his subcontractors shall not proceed with the work/operation in hazardous areas until the Client/Agent's representative has reviewed the Risk Assessment and has approved and signed the revised SHE plan and issued a valid permit to work.

Principal Contractor shall on a daily basis and for every task to be performed, conduct a pre-task risk assessment with all employees involved with the task(s). The pre-task risk assessment will form the basis of the daily pre-job brief/toolbox talks prior to the start of work. Proof of communication as well as confirmation that it was received and understood by all will be noted on a standard form, which will be kept at the job site

during the job execution. The completed signed pre-task risk assessment form will be filed in the Principal Contractor **SHE** files.

The Contractor must ensure through his risk management process the hierarchy of controls stipulated as follows, are implemented

1. **Eliminate** - The complete elimination of the hazard.
2. **Substitute** - Replacing the material or process with a less hazardous one.
3. **Redesign** - Redesign the equipment or work process.
4. **Separate** - Isolating the hazard by guarding or enclosing it.
5. **Administrate** - Providing control such as training, procedures etc.
6. **Personal Protective Equipment (PPE)** - Use of appropriate and properly fitted PPE where other controls are not practical. (PPE as the last resort)

14. SAFE WORK PROCEDURES AND PRACTICES

Principal Contractor is to provide an indication of the activities that require safe work procedures and practices to mitigate the identified risks. There must be written safe work procedures or method statements for all activities. Risk Assessments should refer to the safe work procedures.

A safe working procedure should be written when

- Designing a new job or task;
- Changing a job or task;
- Introducing new equipment or substances; and
- Reviewing a procedure when problems have been identified, e.g., from near miss incidents or accident/incident investigation.

The safe working procedure should identify:

- The supervisor for the task or job and the employees who will undertake the task
- The tasks that are to be undertaken that pose risks
- The equipment and substances that are used in these tasks
- The control measures that have been built into these tasks
- Any training or qualification needed to undertake the task
- The personal protective equipment to be worn;
- Actions to be undertaken to address safety issues that may arise while undertaking the task
- The methodology that will be used to ensure compliance with the method statement/ procedure.
- Any other information deemed to be necessary by the Lepelle Northern Water Project team
- Associated responsibilities and authorities
- Authorized staff positions to conduct the relevant activities contained in the Safe Work Procedure.

15. EMERGENCY PREPAREDNESS AND RESPONSE

Principal Contractor and his sub-contractors must develop a site-specific emergency response plan and contingency plan, appoint a competent person to act as emergency controller and/or coordinator.

Principal Contractor, together with his sub-contractors, must develop their own emergency response for both site and offices and submit this plan to Lepelle Northern Water representative or agent for approval. Principal Contractor must ensure that his employees and his sub-contractor employees are trained on this plan. Principal Contractor must initiate his own emergency drills and must hold regular practice drills of contingency plans and emergency procedures to test them and familiarize employees with them, have written arrangements in

place with his other contractors regarding the responsibility of the other contractors towards their own injured and/or ill employee.

Principal Contractor must provide third parties and other specialized sub-contractors with training of emergency response plan and contingency plan, such training must be written be part of SHE Plan.

General Safety Regulations promulgated in terms of the Occupational Health and Safety Act (Act no. 85 of 1993) provides for a qualified First Aider and First Aid Equipment regulation 7.

16. ENVIRONMENTAL MANAGEMENT

Principal Contractor must comply with the National Environmental Management Act 107 of 1998 and Amendments, therefore must provide a comprehensive Environmental Management Plan

Spillage of Hazardous Chemical Substances

Principal Contractor must have register of Hazardous Chemical Substances and Material Safety Data Sheets should be kept on site. Herbicide usage

Principal Contractor must have an Herbicide register for usage to be compiled and maintained if such will be utilized on site. The application of herbicides to be in accordance with the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act No. 36 of 1947. Only approved and tested herbicides with a low environmental risk shall be used. Only registered pest control operators may apply herbicides on a commercial basis. All staff applying herbicides must be trained in the application of herbicides.

Fire hazard

Principal Contractor shall comply with regulation 29 in terms of Fire precautions on construction site, ensure that staff are educated in fire prevention and will be held responsible to avoid the risk of fire. No area is to be denuded of vegetation to create firebreaks, to prevent or make fires. No open fires are allowed on site. Principal Contractor must ensure that operations are in compliance with statutory requirements at all times.

Waste

Principal Contractor must compile and submitted waste management plan included the SHE File before commencement of construction works on site. Registers of hazardous and non-hazardous waste to be kept on-site. Principal Contractor must include in the SHE File and a record of disposal and continuous updating of records. No waste, whether it be biodegradable or not, is to be left on site once work has ended. Domestic and hazardous waste generated will not be burned, buried, or disposed of on site or other Landowners' property but will be controlled and removed to a registered waste site on a regular basis (Daily/Weekly/Monthly) must be taken to the appropriate local government site

Principal Contractor and sub-contractor working on site must ensure that oil, fuel, and chemicals are confined to ^{SEP}specific and secure areas throughout the construction period and appropriate signage. These materials must be stored in a barricade area with adequate containment for potential spills and leaks. Principal Contractor must ensure that sufficient waste bins / containers are made available for waste control.

Dust and Noise

Principal Contractor shall monitor dust and noise caused by mobile equipment, generators and other equipment during construction must have a Dust and Noise Management Plan. Factors such as wind can often affect the intensity to which these impacts are experienced. To ensure that noise does not constitute a disturbance during construction activities, all construction works shall occur between specific working hours. Dust suppression measures must be in place to reduce the dust caused by the movement of heavy vehicles.

Environmental Incidents

All environmental incidents such as pollution (air, water, land, noise, etc.), bird kills, animals killed, plants destroyed, public complaints etc. must be reported to Lepelle Northern Water or representative or agent within 24 hours of its occurrence. All environmental incidents occurring on site must be recorded; detailing how each incident was dealt with. Proof thereof must be kept in an incident register. Principal Contractor will be held

liable for any infringement of statutory requirements of the National Environmental Management Act of 1998 or any other relevant legislation.

Water

Principal Contractor must comply with regulation 26. Should observe and water restrictions on site. Must provide water for consumption for by employees during extreme weather conditions. Should any pollution of the watercourse occur, t Lepelle Northern Water or representative or agent the Department of Water Affairs (DWA) must be notified immediately via the ECO/Corporate Environmental Advisor. Bore hole water must be verified for human consumption fitness. All incidents related to water contamination to be reported within 24 hours. Chemical toilets may not be within close proximity of the drainage lines / ways.

Flora

All suitable and rare flora and seeds will be rescued and removed from the site. They must be suitably stored, for future use in rehabilitation. The felling and/or cutting of trees and clearing of bush will be minimized. Bush will only be cleared to provide essential access for construction purposes. The spread of alien vegetation must be minimized. Any incident of unauthorized removal of plant material, as well as accidental damage to priority plants, will be documented.

Fauna

No species of animal may be poached, snared, hunted, captured or wilfully damaged or destroyed. Snakes and other reptiles that may be encountered on the construction site will not be killed unless the animal endangers the life of an employee. Principal Contractor will ensure that the work site is kept clean and free from rubbish, which could attract pests.

Soil pollution management

Topsoil will be temporarily stockpiled, separately from (clay) subsoil and rocky material, when areas are cleared. If mixed with clay sub-soil the usefulness of the topsoil for rehabilitation of the site will be lost. Stockpiled topsoil will not be compacted but will be replaced as the final soil layer. No vehicles will be allowed access onto the stockpiles after they have been placed. Stockpiled soil will be protected by erosion-control berms if exposed for a period of greater than 14 days during the wet season. The need for such measures will be indicated in the site-specific report. Topsoil stripped from different sites will be stockpiled separately and clearly identified as such. Topsoil obtained from sites with different soil types will not be mixed. Topsoil stockpiles will not be contaminated with oil, diesel, petrol, waste or any other foreign matter, which may inhibit the later growth of vegetation and microorganisms in the soil.

Aesthetic and visual impact management

Damage to the natural environment must be minimized. Trees and tall woody shrubs will be protected from damage to provide a natural visual shield. Excavated material will not be placed on such plants and movement across them will not be allowed, as far as practical.

All above ground structures will be located in areas where the visual impact from roads, houses etc. is minimised. All above ground structures could be treated or painted to blend in with the natural environment. Cut and fill areas, river and stream crossings and other soil stabilization works will be constructed to blend in with the natural environment.

All finds of human remains will be reported to the nearest police station. Human remains from the graves of victims of conflict, or any burial ground or part thereof which contains such graves and any other graves that are deemed to be of cultural significance may not be destroyed, damaged, altered, exhumed or removed from their original positions without a permit from the South African Heritage and Resource Agency (SAHRA).

17. SHE AUDITS AND INSPECTIONS

17.1 Compliance with OHS ACT and Construction Regulations

In terms of Construction Regulations 2014, regulation 5(1)(n) to 5(1)(q) the client must take reasonable steps the client must ensure periodic health and safety audits and document verification are conducted at intervals

mutually agreed upon between the principal contractor any contractor, but at least once every 30 days. Regulation 5(1)(q) stop any contractor from executing a construction activity which poses a threat to health and safety of persons

17.2 Contractor SHE Performance Evaluation

Gatsheni Sizwe (Pty) Ltd shall evaluate contractor SHE performance on an on-going basis against the requirements of OHS ACT and Construction Regulations. There will be monthly audits/inspections conducted by Gatsheni Sizwe (Pty) Ltd on Principal Contractor and/or sub- contractors. The contractor's site manager or his representative shall attend these audits. Find SHE Performance Evaluation attached.

18. INCIDENT MANAGEMENT (PRINCIPAL CONTRACTOR AND SUB- CONTRACTORS)

Reporting of Accidents and Incidents

Principal Contractor shall compile and implement procedure for Reporting and investigation of incidents - This document sets out the procedures to be followed when reporting, recording and investigating incidents that occur on a construction site.

Principal Contractor must report to Lepelle Northern Water or representative or agent within 24 Hours and to the Provincial Director of the Department of Labour within seven days from date of incident (Section 24 of the Occupational Health and Safety Act (Act no. 85 of 1993)

Principal Contractor shall report all incidents/accidents as required in terms of legislation including near miss incidents, first aid, medical treatment, lost time incidents (lost time injuries and fatalities); Section 24 and 25 incidents; electrical contact; major equipment damage; chemical spillage and other environmental incidents within 24 hours or before the end of the work shift.

All fatal incidents, employee and contractor incidents, shall be reviewed by the committee within one week after the incident and the members of the Project Progress meeting notified of corrective actions taken. Preliminary investigation information shall be shared.

A comprehensive and detailed investigation report shall be submitted to the Gatsheni Sizwe (Pty) Ltd manager within 7 -14 days after the incident which shall include: Date, time and place of incident; Description of incident; Root cause of incident/accident; Type of injury (if any); Medical treatment provided (if any); Persons involved; Names of witness/s; Corrective action to prevent recurrence (with clear deadlines and responsible persons). It is required that all corrective action is closed out within 3 months. If this is not practicable within the time frame, then it is to be submitted at a later date agreed to by the Lepelle Northern Water or Gatsheni Sizwe (Pty) Ltd.

Gatsheni Sizwe (Pty) Ltd shall ensure that all accidents/incidents are investigated by him/her and are discussed at the SHE committee meeting held on site. Accidents/incidents shall be investigated and recorded in terms of the requirements of the Occupational Health and Safety Act, the National Environmental Management Act and National Water Act as applicable.

Please note that providing the Accident/incident investigation report does not exempt the Principal Contractor from providing accident reports required by Statutory Authorities, in particular, the Contractors' responsibility for reporting accidents in accordance with the requirements of the OHS Act and COLD Act.

Gatsheni Sizwe (Pty) Ltd will participate in any accident/incident investigation if the accident/incident is directly linked to any activity within the scope of the construction project. Principal Contractor shall keep on site/workplace a record of all accidents and incidents reported in the form of the OHS Act Annexure 1 investigation form as referenced in the OHS Act. (Incident Investigation Report) Gatsheni Sizwe (Pty) Ltd on behalf of Lepelle Northern Water reserves the right to conduct an independent investigation in any incident

Principal Contractor shall report **all Incidents/Accidents** where an employee is injured on duty to the extent that he:

- Dies
- Becomes unconscious
- Loses a limb or part of a limb

- Is injured or becomes ill to such a degree that he is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he was usually employed

Or where -

- A major incident occurred
- The health or safety of any person was endangered
- Where a dangerous substance was spilled
- The uncontrolled release of any substance under pressure took place
- Machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- Machinery ran out of control

To Lepelle Northern Water or representative or agent within two days and to the Provincial Director of the Department of Labour within seven days from date of incident (Section 24 of the Occupational Health and Safety Act (Act no. 85 of 1993) and General Administrative Regulations), except that, where a person has died, has become unconscious for any reason or has lost a limb or part of a limb or may die or suffer a permanent physical defect, the incident must be reported to both Lepelle Northern Water and the Provincial Director of the Department of Labour forthwith by telephone, telefax or e-mail.

Principal Contractor shall provide Lepelle Northern Water with copies of all statutory reports required in terms of the Occupational Health and Safety Act (Act no. 85 of 1993) within 7 days of the incident occurring.

Principal Contractor shall provide Lepelle Northern Water with copies of all internal and external accident/incident investigation reports, within 7 days of the incident occurring.

Accident and Incident Investigation

Principal Contractor will be responsible for the investigation of all accidents and/or incidents where employees and non-employees were injured to the extent that they had to receive medical treatment other than first aid.

The results of the investigation will be entered into the accident and/or incident register. Principal Contractor will be responsible for the investigation of all minor and non-injury incidents as described in Section 24(1)(b) and (c) of the Occupational Health and Safety Act (Act no. 85 of 1993) and for keeping a record of the results of the investigations including the steps taken to prevent similar accidents in future. Principal Contractor will be responsible for the investigation of all road traffic accidents, related to the construction activities, and for keeping a record of the results of the investigations including the steps taken to prevent similar accidents in future.

19. MONTHLY STATISTICAL REPORTING AND WEEKLY STATISTICAL REPORTING

Principal Contractor must report to Gatsheni Sizwe (Pty) Ltd on the 2nd of every month, each company's performance which includes the following as a minimum: Incidents: Lost time /Disabling Injuries, Medical; first aid, near misses reported; Staff Complement per principal contractor and Sub-Contractor Company; Actual man-hours worked; Status on incidents investigated and recommendations closed out and Status on audits conducted and findings closed out. Principal Contractor Safety Officer where appointed must report all the SHE Matters to Gatsheni Sizwe (Pty) Ltd on include day and time using the Weekly Report Template.

20. OPERATIONAL CONTROL REQUIREMENTS

Notices and Signs

It's mandatory for Principal Contractor and their sub-contractors to display construction notices and signage.

- The location of every first aid box; fire extinguisher and emergency exit are to be clearly indicated by

means of a sign.

- At the entrance to premises where machinery is used: Restricted access on “**Authorized Person Only**” signs on entry. Notices & Signs at entrances and along perimeters indicating “No Unauthorized Entry”.
- When in use, an Explosive Power Tool shall have a sign, warning people of its use.
- Principal Contractor shall provide the signage where work is conducted and where unauthorized entry is prohibited and/or where alerting and cautioning passers-by to be aware of potential dangers.
- Notices & Signs at entrance instructing visitors and non - employees what to do, where to go and where to report on entering the site/yard with directional signs. e.g. “Visitors to report to Office”
- Notices & Signs posted to warn of overhead work and other hazardous activities. E.g. **General Warning Sign’s**
- All equipment brought onto the construction site, (including motorized equipment, e.g. bobcat) that requires PPE to be worn during operation, must have the relevant PPE mandatory sign/s attached. The type and use of PPE will be placed at all entry points to the construction site.
- At every place where machinery is used a notice (English & Pictograms) shall be posted.
- Explosive Power Tool shall have a sign warning people when it is in use.
- Electrical Control Gear. A notice shall be posted so as to warn against the re-closing of a switch of ^[1]_{SEP} control gear whilst a person is working on such equipment.
- Emergency contact telephone numbers.
- Adequate scaffolding signs. (When applicable).
- Adequate firefighting equipment signs.
- Speed limit signs.
- “MEN WORKING ABOVE”
- “MEN WORKING BELOW”
- “ROAD CLOSED - DETOUR”
- “CAUTION - MEN WORKING - DRIVE SLOWLY”
- “EXCAVATION IN PROGRESS”
- “NO WALKWAY”
- “NO CLEARANCE”
- “WALKWAY”
- “RED AND YELLOW DANGER FLAGS”
- “DANGER - LIVE CABLES”
- Warning notices at openings through which people may fall.
- Risk based signage depending on the task being performed i.e. overhead work, hot work etc.
- No-entry signs to incomplete platforms

Barricading

Principal Contractor will erect barricading for any major operations involving site works for approval by Lepelle Northern Water. Examples are Man at work, Narrow, Arrow etc. Where there is a risk of injury, Principal Contractor will erect the area secure solid barricades. The barricade will be constructed a minimum of 1,5m away from the area. All physical barricades must be covered with netting ensuring visibility for personnel and operators of machinery.

Barricading for the prevention of access into areas with a potential risk of injury shall as a minimum be constructed of a handrail, knee-rail and appropriately supported as to prevent any person from falling into the restricted/risk area.

Working in confined spaces (manholes)

Principal Contractor will take adequate steps to eliminate or control hazards when the workers working inside confined space. Before working in an area, which contains dust, the area is to be

ventilated and hosed down to settle and dampen the dust.

Principal Contractor shall provide all necessary equipment to manage confined spaces, including all necessary monitoring and rescue equipment (such as tripods, breathing equipment and the like). Principal Contractor shall ensure that all persons working in a confined space or managing entry to a confined space are appropriately trained.

Construction Vehicles and Mobile Plant

In terms of regulation 23(1) to 23 (2) provides regulations which Principal Contractor must comply with in regards to construction vehicles and mobile plant:

All lifting equipment and cranes must load test certificates.

All motor vehicles operated by Contractors within the area shall, in all respects, comply with the Road Traffic Ordinance and Road Traffic Act. Designated drivers shall be in possession of a driver's license, valid for the class of vehicle. The person or operator so authorized and shall produce such card on request shall keep the driver's license.

All drivers of construction vehicles and mobile plant to have medical certificates of fitness. Each Project site will have system/ process to manage vehicle access to site.

The speed limit within the bounds of the construction site is 40 km/h.

No drivers or operator may talk on cell phones or two-way radios whilst driving, unless a hands-free kit is used.

It is the responsibility of the driver to ensure:

- He/ She and his/her passengers wear seat belts whilst the vehicle is in motion.
- Comply with all safety, direction and speed signs.
- Ensure that vehicle loads are properly secured and loaded onto vehicles.
- Ensure that vehicles are not overloaded.

The requirements with regard to the transportation of tools/equipment/material and persons on the back of construction vehicles must be adhered to:

- No Personnel to be transported in the back of construction vehicles with tools.
- Tools, equipment and material to be secured in order to prevent movement;
- Fixed and firmly secured seats with seat belts - Number of passengers
- The driver and all passengers must have seatbelts fastened whilst driving

Principal Contractor shall ensure that his employees and those of his subcontractors do not:

- Ride on back of elevators, cranes or other mobile plant equipment. Only competent Machine, Equipment operator in Construction Vehicles.
- Leave vehicles unattended with the engine running.
- Park vehicles in unauthorized zones/areas.

Principal Contractor shall be solely responsible for the safety and security of any of his vehicles (including private vehicles) on the premises.

A current maintenance logbook is required for all cranes and large plant equipment, and shall be available for inspection at any time. The logbook shall be located in the cabin of the crane or plant equipment.

Principal Contractor is to ensure that visibility (e.g.: switching on of lights, reflectors, barricades equipped with lights, etc.) is enhanced on all Construction Vehicles and Mobile plants in order to identify the location of the vehicles or plant.

Principal Contractor must maintain his vehicles in roadworthy condition and a valid license. These vehicles shall be subject to inspection by the Client/Agent's representative. Vehicles, which are not roadworthy, will not be allowed onto the site.

In the event where the Principal Contractor and his sub-contractor do not own the equipment, the Principal Contractor is still responsible for ensuring all conditions are complied with by all of his subcontractors or hire companies. Drivers/operators shall be responsible for the travel-worthiness of all loads conveyed by them.

Precautions

Cranes and lifting equipment

Regulation 22 provides for requirement for Principal Contractor to provide risk assessments and procedure or method statements in regards cranes and for competent operators with medical certificates of plant and cranes. Compliance with Driven Machinery Regulations promulgated in terms of the Occupational Health and Safety Act (Act no 85 of 1993)

Lifting equipment must be designed and constructed in accordance with the manufactures/designer's specifications as well as generally accepted technical standards and operated, used, inspected and maintained in accordance with the manufactures requirements as well as that of the of Driven Machinery Regulations promulgated in terms of the Occupational Health and Safety Act (Act no 85 of 1993)

Lifting equipment is clearly and conspicuously marked with the maximum mass load (MML) that it is designed to carry safely. Lifting equipment shall be fitted with a load limiting device that automatically arrest the lift when the load reaches its highest safe position or when the mass of the load is greater than the MML. No person may be lifted by a lifting machine not designed for lifting persons unless in a cradle approved by the inspector of the Department of Labour.

All lifting equipment and cranes must load test certificates.

No Crane shall be used without a pre-use check and findings entered on an approved checklist. Before any cranes are established on site the following must be inspected and approved. Certification will be required for record purpose, and shall cover the following:

Brake or other device capable of holding the maximum mass should the power fail, or which is such that it shall automatically prevent the uncontrolled downward movement of the load when the raising effort is interrupted; and Limiting device that shall automatically arrest the driving effort when:

The Hook or Load attachment point of the Power-Driven lifting machine reaches its highest safe position; and in the case of a Winch Operated lifting machine with a lifting capacity of 5000kg or more; the load is greater than the rated mass load of such machine.

Bulk Mixing Plant

Regulation 20 provides:

Principal Contractor must ensure that the operations of a bulk mixing plants are operated and supervised by a competent person who has been appointed in writing and is

- (a) Aware of all the dangers involved in the operation thereof; and
- (b) Conversant with the precautionary measures to be taken in the interest of health and safety.

No person supervising or operating a bulk mixing plant may authorize any other person to operate the plant, unless that person is competent to operate a bulk mixing plant.

Principal Contractor must ensure that the placement and erection of a bulk mixing plant complies with the requirements set out by the manufacturer and that such plant is erected as designed.

Structures

In terms of regulation 11 Principal Contractor must comply with regulation -

He or she prevent uncontrolled collapse of any new/existing structure

Ensure structures are not overloaded to the extent that it becomes unsafe

Contractor to ensure all drawing are kept on site and available to interested parties

Owners of structures to ensure inspections are conducted by competent persons at least once every 6 months for the first 2 years and thereafter annually

Owner to retain records to ensure maintenance of a structure and ensure records are kept

Scaffolding

Principal Contractor compliance with regulation 16(1), 16(2) and usage complies with regulation 44 of the Act. Principal Contractor must appoint a competent person in writing to supervise all scaffolding works, erection, team leaders and inspectors are competent.

A scaffold is a temporary structure for the purpose of creating a work platform, on which workers can carry out their work at varying heights, whether on buildings under construction, or during maintenance of buildings.

The most serious risks associated with scaffolds are firstly that the structure itself may collapse, leading to damage and injuries. Secondly, the items on the scaffold may fall and be damaged or cause damage to items on a lower level or injure or kill people. Thirdly, people may fall from the scaffold and the results are usually serious or fatal.

Personal and other Protective Equipment

In terms of Section 8 of the OHS Act, the duty of the employer is to take steps to eliminate or mitigate (hierarchy of control measures) any hazard or potential hazard to the safety or health of employees before resorting to PPE.

Principal Contractor employees and his sub-contractor employees at the construction site, including visitors, shall use the following SANS or the relevant internationally recognized authority approved risk-based PPE at all times, as a minimum:

- Head protection (Hard hat).
- Steel toe capped safety boots.
- Eye protection.
- Long sleeved and long pants protective clothing.
- High visibility vests.

Refer to General Safety Regulation 2 of the OHS Act However, if there are particular activities/areas/risk assessments that require a specific type of PPE, then that specific PPE requirement must be adhered to (e.g.: for dusty environments – eye goggles; for welding – welding helmet; etc.).

Principal Contractor must provide a detailed program on the issuing, maintenance and replacement of PPE for all his employees and subcontractors on site. Principal Contractor required to keep an updated register of all PPE issued to staff, including that of his sub-contractors

The principal contractor is required continuously to identify the hazards in the workplace and deal with them. He must either remove them or, where impracticable take steps to protect workers and make it possible for them to work safely and without risk to health under the hazardous conditions.

Personal protective equipment should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of personal protective equipment is considered.

Where it is not possible to create an absolutely safe and healthy workplace the principal contractor is required to inform employees regarding this and issue, free of charge, suitable equipment to protect them from any

hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

Suspended Platforms

A contractor must appoint a competent person in writing who must ensure that all suspended platforms work operations are carried out under his or her supervision and that all suspended platform erectors, operators and inspectors are competent to carry out their work. Principal Contractor must adhere to the requirements by regulation 17.

No contractor may use or permit the use of a suspended platform, unless -

- (a) the design, stability and construction thereof comply with the safety standards incorporated for this purpose into these Regulations under section 44 of the Act;
- (b) he or she is in possession of a certificate of system design issued by a professional engineer, certificated engineer or a professional technologist for the use of the suspended platform system; and
- (c) he or she is, before the commencement of the work, in possession of an operational compliance plan developed by a competent person based on the certificate of system design contemplated in subparagraph (b) and applicable to the environment in which the system is being used, which operational compliance plan must include proof.

Explosive Actuated Fastening Devices

No contractor may use or permit any person to use an explosive actuated fastening device unless:

- The user is provided with and uses suitable protective equipment
- User is trained in the operation, maintenance and use of such a device
- Firing mechanism designed to ensure no accidental firing

Blasting Operations

No blasting shall be done by Principal Contractor or subcontractors without the approval and permission of Lepelle Northern Water Gatsheni Sizwe (Pty)Ltd. The Contractor shall apply in writing to Lepelle Northern Water for permission to blast. All contact with the Inspector of Labour shall be done through the appropriate channels.

Principal Contractor must furnish the following information to Lepelle Northern Water and Gatsheni Sizwe (Pty)Ltd before blasting takes place:

- The blaster must hold a surface-blasting permit for blasting.
- The name of the blaster.
- The number of his blasting permit.
- The registration number of the explosive vehicle.
- The number of the continuous transport permit held.
- The blasting method statement in detail.

Hazard Identification Risk Assessment. The Occupational Health and Safety Act (Act no. 85 of 1993) and Mine Guidelines are to be strictly adhered to at all times. NB: Insofar as those Regulations shall apply in all cases, irrespective of the depth of the hole to be blasted. The Site Manager of Principal Contractor is to be advised each morning as to the blasting program for the day.

Electrical installations and machinery on construction sites

Principal Contractor must, in addition to compliance with the Electrical Installation Regulations, 2009, and the Electrical Machinery Regulations, 1988, promulgated by Government Notice No. R. 1593 of 12 August 1988, ensure that:

- Before construction commences and during the progress thereof, adequate steps are taken to ascertain the presence of and guard against danger to workers from any electrical cable or apparatus which is under, over or on the site;
- All parts of electrical installations and machinery are of adequate strength to withstand the working conditions on construction sites;

Electrical and mechanical lockout

An electrical and mechanical (as applicable) lockout procedure must be developed by the principal contractor and submitted to Lepelle Northern Water or Gatsheni Sizwe (Pty) Ltd for approval before construction commences. All contractors on site must adhere to this lockout procedure.

Fuel Storage

No petrol or fuel oil shall be stored in bulk on the surface in quantities in excess of two thousand liters in any tank above or below ground level except with the prior written approval of the Chief Inspector. No petrol shall be stored in drums in excess of a total of two hundred liters in any building or other place except with the prior written approval of the Department of Labour Chief Inspector. No fuel oil shall at any time be stored underground unless it is stored in a suitable container or tank, which does not leak.

Every storage tank provided at any filling station on the surface for the purpose of containing petrol or fuel oil shall be suitably constructed to an acceptable standard that would ensure the safe storage thereof. Suitable means for firefighting shall be installed at a safe location for the extinguishing of fire in the event of an incident. Fire equipment supply shall be appropriate to the quantity being stored.

All storage facilities shall be bunded 110% of the quantity contained and bunded areas will be supplied with a drain facility to enable the bunded area to be drained in a receptacle for disposal in the event of a spill or accumulation of water.

Housekeeping and general safeguarding on construction sites

Principal Contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, promulgated by Government Notice No. R. 2281 of 16 October 1987, ensure that suitable housekeeping is continuously implemented on each construction site, including:

- The proper storage of materials and equipment;
- The removal of scrap, waste and debris at appropriate intervals;
- Ensuring that materials required for use, are not placed on the site so as to obstruct means of access to and egress from workplaces and passageways
- Ensuring that materials which are no longer required for use, do not accumulate on and are removed from the site at appropriate intervals;
- Ensuring that waste and debris are not disposed of from a high place with a chute, unless the chute complies with the requirements set out in regulation 14(6);

- Ensuring that construction sites in built-up areas adjacent to a public way are suitably and sufficiently fenced off and provided with controlled access points to prevent the entry of unauthorized persons;
- Ensuring that a catch platform or net is erected above an entrance or passageway or above a place where persons work or pass under, or fencing off the danger area if work is being performed above such entrance, passageway, or place so as to ensure that all persons are kept safe in the case of danger or possibility of persons being struck by falling objects.

Stacking and storage on construction sites

Principal Contractor must, in addition to compliance with the provisions for the stacking of articles in the General Safety Regulations, 2014, regulation 28 ensure that:

A competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site;

Adequate storage areas are provided;

There are demarcated storage areas; and

Storage areas are kept neat and under control.

Fire precautions on construction sites

The principal contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, ensure that:

- All appropriate measures are taken to avoid the risk of fire;
- Sufficient and suitable storage is provided for flammable liquids, solids and gases;
- Smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials;
- In confined spaces and other places in which flammable gases, vapors or dust can cause danger -
- Only suitably protected electrical installations and equipment, including portable lights, are used;
- There are no flames or similar means of ignition; There are conspicuous notices prohibiting smoking;
- Oily rags, waste and other substances liable to ignite are without delay removed to a safe place; and
- Adequate ventilation is provided;
- Combustible materials do not accumulate on the construction site;
- Welding, flame cutting and other hot work are done only after appropriate precautions have been taken to reduce the risk of fire;

Excavations

Principal Contractor must ensure compliance regulation 13 amongst other must appoint competent person for supervision of excavation works. Principal Contractor must provide for Excavation and Back Filling Plan.

Principal Contractor who performs excavation work must take reasonable and sufficient steps in order to prevent, as far as is reasonably practicable, any person from being buried or trapped by a fall or dislodgement of material in an excavation. May not require or permit any person to work in an excavation, which has not been adequately shored or braced: Provided that shoring and bracing may not be necessary where.

Appropriate signage shall be affixed to the barricade indicating the risk associated (i.e. deep excavation, lifting operations etc.) and the responsible Supervisor and contact details shall be displayed.

The process of excavation and back filling must be carried out as a sequential process following one another as quickly as possible. Excavations must only remain open for a minimum period of time and during this time they must be clearly demarcated. If excavations place the public at risk these sites must be fenced. The residents directly affected by open trenches must be notified of the dangers. This will be done during the site-

specific phase.

21. HEALTH AND SAFETY AWARENESS PROGRAMME

The awareness program must be provided by Principal Contractor for community awareness, Schools, Clinic, local Vendors etc., must be in place to create an occupational health and safety culture within employees. The following are some of the methods that may be used:

- Toolbox talks;
- Posters;
- Videos;
- Competitions;
- Suggestion schemes;
- Participative employee activities such as “occupational health and safety circles”.

22. Minimum requirements of the SHE File

As required by the Construction Regulations (2014), Principal Contractor and other Contractors will each keep an SHE File on site containing the following minimum documentation:

Approval letter by Lepelle Northern Water on contents of Health and Safety File / SHE Plan;

Notification of construction work to the relevant Department of Labour (stamped on each page / no faxed copies);

Scope of work to be performed;

OH&S / SHE Policy and other Policies;

Updated copy of the Occupational Health and Safety Act (Act no. 85 of 1993) and its Regulations.

Updated copy of the Compensation for Occupational Injuries and Diseases Act (Act no. 130 of 1993) and its Regulations;

Proof of registration and good standing with the Compensation Commissioner or another licensed Insurer;

SHE plans agreed with Lepelle Northern Water including the underpinning risk assessment(s);

A list of contractors (sub-contractors) including copies of the agreements between the parties and the type of work being done by each contractor;

- Notice of new projects;
- Designs and/or drawings;
- Copies of occupational health and safety committee meetings and other relevant minutes;
- Copies of written designations and appointments of competencies;
- Management structure (inclusive of OH&S responsibility & meeting structure);
- Induction training and site, SHE rules;
- Occupational health and safety training;
- Arrangements with contractors and/or mandatories;
- Description of security measures;
- Occupational health and safety rules and procedures;

The following registers:

- Accident and/or incident register;
- Occupational health and safety representative's inspection register;
- Construction vehicles and mobile plan inspections;

- Daily inspections of construction vehicles, plant and other equipment by the operator, driver and/or user;
- Daily inspections of excavations by competent person;
- Daily inspections of demolition work by competent person;
- Record of entry to confined space;
- Record of training;
- Record of toolbox talks;
- Designer's inspections and structures record;
- Inspection and maintenance of explosive powered tools;
- Inspection of electrical installations (including inspection of portable electrical tools, electrical equipment and other electrical appliances);
- Fall protection inspections;
- First-aid box content;
- Record of first-aid treatment;
- Fire equipment inspection and maintenance;
- Record of hazardous chemical substances kept and used on site;
- Ladder inspection;
- Machine safety inspections (including machine guards, lock-outs etcetera);
- Inspection registers and logbooks for lifting machines and -tackle (including daily inspections by drivers/operators);
- Inspection of temporary work
- Inspection of scaffolding;
- Inspection of excavation
- Inspection of demolition work
- Inspection of tunneling
- Inspection of stacking and storage;
- Inspections of structures;
- Inspection of use and temporary storage of flammable liquids on construction sites
- Inspection of water environments
- Inspection of housekeeping and general safeguarding on construction site
- Inspection of construction employees' facilities
- Inspection of suspended platforms
- Inspection of rope access work
- Inspection of material hoists
- Inspection of bulk mixing plant
- Inspection of explosive actuated fastening device
- Inspection of cranes and Load Test Certificates
- Inspection of construction vehicles and mobile plant Inspections of vessels under pressure;^[17]_[SEP]
- Inspection of electrical installations and machinery on construction sites; and
- Records of issuing of Personal Protective Equipment;
- Lepelle Northern Water Master Way Leaves

Monthly reporting and recording of statistics;

Keeping of any other record in terms of applicable legislation falling within the scope of SHE Legislation applicable to the project and the Principal Contractor/ Contractor's activities and organization.

Emergency preparedness and response program;

Investigation and reporting of incidents and/or accidents (internal to Client and Department of Labour / Compensation Commissioner

All other applicable records. Principal Contractor duties are to ensure compliance with the Construction Regulation (2014), which are to:

Provide a suitably documented health and safety plan based on the health and safety specification

- Keep a health and safety file on site, which must include all documentation required in terms of the Act and
- Regulations, and which are made available on request to an inspector, the client, the client's agent or a Contractor
- Ensure appointed contractor complies with the Act
- Perform duties of client with regard to contractors
- Appoint contractors in writing
- Ensure a contractor's health and safety plan is implemented and maintained
- Ensure that potential contractors submitting tenders have made sufficient provision for health and safety
- Ensure Principal Contractor is satisfied that contractor that he/she intends to appoint, is competent and has resources to perform work safely
- Prior to work commencing, every contractor needs to be registered and in good standing with the compensation fund or with a licensed compensation insurer – COID Act, 1993
- Audit contractor monthly
- Stop any contractor from executing work which is not in accordance with health and safety plan for the site or which poses a threat to health and safety of persons
- Where changes are made to the design and construction, make available sufficient health and safety information and resources
- After discussions and negotiations with Principal Contractor on the contents of the health and safety plan, it must be sent for final approval
- Ensure copies of all health and safety plans are available on request to an employee, an inspector, a contractor, the client or the client's agent
- Hand over the consolidated health and safety file to the client on completion of the construction work (include drawings, designs, materials used, etc.)
- Provide updated list and agreements/contracts of all contractors on-site to the client
- Ensure all employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3
- Principal Contractor must ensure cooperation between all appointed contractors.
- Principal Contractor allows or permit any employee or person to enter any site, unless they have undergone a health and safety induction training

Principal Contractor must ensure all visitors to a construction site have personal protective equipment. The regulations require that the duties extend through to all levels of responsibility to sub - contractors. For this reason, it is advised that contractors require sub-contractors to be up front on their intent to further sub-contract any aspects of their work. Lepelle Northern Water will conduct an inspection and evaluation of the principal contractor's SHE File on a monthly basis.

Principal Contractor is required to submit the SHE File after receiving letter of appointment from Lepelle Northern Water. Lepelle Northern Water will allocate a day to evaluate the file and to give feedback on the evaluation report of the file to the contractor.

The approval letter from Lepelle Northern Water must be kept in the SHE File and any letter issued concerning the evaluation of the file.

COVID-19 BASELINE RISK ASSESSMENT.

Compliance with the **Occupational Health and Safety Act No.85 of 1993 and the Disaster Management Act, of 2002, and the subsequent regulations.** This specification is compiled in line with the COVID-19 Baseline Risk Assessment. Principal Contractor must use it as a reference document when developing their COVID-19 response plans.

Workplace Plan - A plan must be developed by the contractor for the phased in return of employees to site. Please refer to the latest regulations and amendments, all persons who are able to work from home should do so. Coordination on Site Relating to COVID-19 matters –

The contractor must appoint a manager to address employees concerns and keep them informed re COVID-19.

Additionally, the contractor must designate a COVID-19 compliance officer (required of all industries, businesses, entities, both private and in the public sector). This compliance officer is responsible for overseeing the following:

implementation of the workplace plan; and adherence to the standards of hygiene and health protocols relating to COVID-19 at the workplace;

developing a plan for the phased in return of their employees to the workplace, prior to reopening the workplace for business, which plan must correspond with Annexure E of the Disaster Management Act 2002 (as amended April 2020) and be retained for inspection and contain the following information: which employees are permitted to work; what the plans for the phased-in return of their employees to the workplace are; what health protocols are in place to protect employees from COVID-19; and the details of the COVID-19 compliance officer; phase in the return of their employees to work to manage the return of employees from other provinces metropolitan and district areas; and develop measures to ensure that the workplace meets the standards of health protocols, adequate space for employees and social distancing measures for the public and service providers, as required.

Transportation to Site - Procedures for Transportation of Workers to Site - employees should be advised that if using transport, passengers must wear a cloth mask to be allowed entry into the vehicle. Hand sanitisers must be made available, and all passengers must sanitise their hands before entering. Public transport vehicles must be sanitised on a daily basis.

Please note that the government mandated limit on passengers per vehicle must be strictly adhered to.

Site access - Entry to site may only be through pre-arranged security-controlled access points.

Contractor must detail how will members of public be prevented from accessing site (risk of cross contamination between persons working on site and members of public).

Provision of Visitors Book for signing in and out of site. Records of all personnel entering site and their contact details must be kept.

Screening on Site - Contractor to advise how will personnel on site be screened on a daily basis for symptoms of COVID-19, including a symptom check as well as temperature assessment (digital thermometer). The contractor must describe their procedure for employees on site, suspected of having COVID-19 symptoms, refusing to undergo medical examination, prophylaxis, treatment, isolation, and quarantine. Sites with more than 500 employees must have testing facilities.

Risk assessment and safety procedure - Contractor must provide a written policy concerning the protection of its staff from COVID-19. Contractor must compile a COVID-19 risk assessment and safety procedures for the site. How will it be communicated to all on site and records kept thereof. The Risk Assessments must include the identification of exposure levels, identification of "high contact" activities, the identification of vulnerable workers and special measures for their protection, including protection against unfair discrimination or victimization.

Safety Signage and Hotline Number - Contractor to implement placement of COVID-19 safety signage and hotline number at site entrance and on site, warning of hazards and advising control measures (see samples in Annexure to this document).

Please note that signage must be representative of the local languages.

Communication Procedures - Contractor to describe comprehensive induction and toolbox talk procedures to include

COVID-19. Toolbox talks should be conducted weekly on COVID-19 control measures and risks on site, include personal

hygiene - manner of controlling coughing and sneezing on site - in elbow.

Emergency Procedure - Contractor must describe communication of COVID-19 symptoms and protocol that must be followed if person demonstrates symptoms, or is thought to have COVID-19 - symptoms of COVID-19 include cough, sore throat, shortness of breath or fever/chills (or $\geq 38^{\circ}\text{C}$ measured temperature), redness of eyes, also additional symptoms – body aches, loss of smell or loss of taste, nausea, vomiting, diarrhoea, fatigue, weakness or tiredness. Contractor must advise personnel on site of the symptom reporting procedure to site management of COVID-19 symptoms, and referral protocol for screening or testing if showing symptoms.

Emergency COVID-19 protocol that must be put in place by Principal Contractor must include:

Sick workers may not enter workplace.

If sick worker already on site, then worker must be isolated in designated area for isolation on site, provided with

FFP1 surgical mask and transported for self-isolation or for medical examination or testing at identified testing site.

Worker placed on sick leave.

On receiving their results, the employee and/or health professional supporting the employee should notify them workplace so that the employee is managed accordingly. The workplace should proactively take steps to obtain this information to avoid any delays in reporting.

Assess the risk of transmission, disinfect area and workers workstation, refer exposed workers for screening, etc.

Lodge claim with Workman's Compensation if infection occupationally acquired.

Worker may only return to work after undergoing a medical evaluation confirming worker has tested negative for COVID-19.

Worker must be closely monitored for symptoms on return to work.

If worker has been diagnosed with COVID-19 the employer must notify Dept of Health and Dept of Employment and Labour

NOTE THAT: personnel on site, or presenting themselves to site who appear sick, or have symptoms associated with COVID-19 may not be allowed on site.

Welfare and Washing Facilities, Sanitising and Disinfection - Contractor must describe provision of soap and clean running water and sanitisers at site entrance and at other locations on site. Correct manner of washing / disinfecting hands, 20 second rule. Use of paper towels only. Disinfection of work surfaces and equipment control procedures required - carried out before work begins, regularly during day and after work ends. Toilets, common areas, door handles, shared electronic equipment and any other shared equipment must be regularly cleaned and disinfected, biometric systems disabled or made COVID-19 safe.

Hand sanitiser must contain 70% alcohol.

Employees working away from home should be provided with hand sanitiser by the employer.

COVID-19 PPE on Site - Contractor must describe controls for wearing of PPE on site, including wearing of cloth masks on site - people working and visiting site must be instructed on the correct way of wearing cloth masks, procedure for maintenance and replacement of cloth masks. Surgical masks and N95 masks should only be worn by frontline health workers, not site staff. Note that some surgical masks should be kept on site to give to persons exhibiting COVID-19 symptoms prior to being taken away for testing.

Employer is required to provide each employee with at least 2 cloth masks and must make appropriate arrangements for washing, drying and ironing of cloth masks.

Supervision and Monitoring on Site - Monitoring systems must be in place by Contractor to ensure compliance with safety protocols and identify infections among employees - supervision monitoring and enforcement - how will it be done by the contractor?

Ventilation on Site - How will ventilation and air quality be made safe on site.

Waste Management - Sufficient refuse bins must be on site for disposal of tissues, used PPE. Procedure for safe removal of contents of bins; used PPE, other detritus should be made in contractors safety plan.

Social Distancing Measures - Contractor must describe, so far as practicable how can numbers of workers be minimised on site at any one time (e.g.: through staff rotation, staggered working hours, shift systems, remote working arrangements or similar to achieve social distancing? (1.5m). Note that contractor must minimise contact between workers themselves and workers and public.

Depending on what is reasonably practicable, site must be arranged so that there is distance of at least 1.5m between workers and members of public or put physical barriers in place or provide workers with face shields or visors.

COVID-19 Investigation procedure - Contractor must describe how will they investigate the cause of COVID-19 infection (Including control failure and risk assessment review, checking of PPE requirements, admin support to contact tracing implemented by Dept of Health).

Important notes:

If more than 500 employees in contractors employ the employer must submit this risk assessment and written policy re health and safety of employees from COVID-19 to Safety Committee and Department of Employment and Labour.

Monitoring by the Safety Agent will be strict - noncompliance with COVID-19 control measures will be reported immediately to the principal contractor for action purposes. If necessary, transgressors will be removed from site for re-induction, or a recommendation for permanent barring from site will be made. As this is an ongoing medical crisis it is likely that control measures to prevent the spread of the virus will be updated by the government on a regular basis. Hence the measures in this section of the safety specification will be reviewed on an ongoing basis, as we receive updated information from the government.

**HEALTH AND SAFETY SPECIFICATION FOR:
OLIFANTSPOORT AND OLIFANTSPOORT WATER SUPPLY SCHEMES: REFURBISHMENT OF
THE OLIFANTSPOORT WTW**

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1. PROJECT AND SCOPE OF WORK DETAILS

1.1 Appointment of Health and Safety Agent

Health and Safety Agent has been appointed by Sigodi Marah Martin Management on behalf of Lepelle Northern Water; Refurbishment of the Olifantspoort WTW to perform the duties of Health and Safety Manager or Agent.

In terms of Construction Regulations, 2014:

Regulation 5(1), 5(5), 5(6) and 5(7)

Where a construction work permit is required as contemplated 3(1), the client must, without derogating from his or her health and safety responsibilities or liabilities, appoint a competent person in writing as an agent to act as his or her representative

5 (1) a client must -

- (a) Prepare a baseline risk assessment for an intended construction work project;
- (b) Prepare a suitable, sufficiently documented and coherent site-specific health and safety specification for the intended construction work based on the baseline risk assessment contemplated in paragraph (a):

Therefore, a Health and Safety Agent on behalf of Lepelle Northern Water has therefore prepared the following specification below, must be provided and adhered to by Principal Contractor by means of a Health and Safety File, Plan and Health and Safety Compliance on the following project: Lepelle Northern Water: Refurbishment of the Olifantspoort WTW

Lepelle Northern Water: Refurbishment of the Olifantspoort WTW

The objective of this specification is to ensure that Principal Contractor entering into a contract with Lepelle Northern Water achieves and maintains an acceptable level of occupational health, safety and environmental performance and compliance.

NOTE PRINCIPAL CONTRACTOR AND ITS SUB-CONTRACTORS

The SHE specification provided by Health and Safety Agent on behalf of Lepelle Northern Water is the minimum requirement. Principal Contractor must develop an HSE File and Plan that meets all the requirements and all relevant and applicable legislation. Health and Safety Agent and Lepelle Northern Water in No way assumes Principal Contractor Legal responsibilities and liability. Principal Contractor is accountable for the quality, execution of the Health, Safety and Environmental program and management for its employees, sub-contractors and sub-contractors' employees. The SHE specification provides the minimum requirements and shall not be construed as exhaustive and all encompassing.

Principal Contractor must include a copy of the following documents:

- a) Construction Regulation, 2014
- b) OHS Act 85 of 1993
- c) Appointment Letter from Lepelle Northern Water
- d) Form of a Guarantee

1.2 Project Title as per Tender Document:

Lepelle Northern Water: Refurbishment of the Olifantspoort WTW

1.3 Project description/detailed scope of work

The work to be performed under this contract comprises of the following:

Lepelle Northern Water: Refurbishment of the Olifantspoort WTW

The scope includes the analysis and design of the following elements for Lepelle Northern Water: Refurbishment of the Olifantspoort WTW

The treatment system involves direct filtration purification works with air stripping pre-treatment and chlorination for disinfection post treatment. The raw water supply is of a very good quality under normal circumstances, however, occasional floods within the catchment of the Olifantspoort Dam led to periods of high raw water turbidity. This requires intensive closing and results in short filter runs with the plant struggling to maintain the final water quality targets.

2. ROLES AND RESPONSIBILITIES

Lepelle Northern Water Project Manager: Gundo Motsoare

Project Manager on behalf of Lepelle Northern Water He/she is responsible for managing the contract with the Consulting Engineers, Health and Safety Consultants and Principal Contractor and ensure overall construction works are completed and Compliance with relevant legislation: General Conditions of Contract for Construction Works, 2015 and OHS Act 85 of 1993 and Construction Regulations 2014. In regard regulation 5 Duties of the Client and Particulars of Contract including but not limited to the following:

The contractor must comply with the provisions and contractual arrangements of the Occupational Health and Safety Act (OHSA) as well as the Environmental Management Act (NEMA): Waste Management.

All workers of any project undertaken as part of this bid must undergo a medical fitness test by an Occupational Health and Safety Practitioner who is registered with the South African Nursing Council (SANC). The medical test certificates must be presented by the Principal Contractor to Lepelle Northern Water.

Penalties of R15000 per day are applicable on this contract.

Lepelle Northern Water Health and Safety Manager:

Health and Safety Manager at Lepelle Northern Water responsible for implementation of Health and safety in accordance with OHS Act 85 of 1993 and Construction Regulations 2014 on construction site on behalf of LEPELLE NORTHERN WATER

Consulting Engineers: Sigodi Marah Martin Management

Sigodi Marah Martin Management appointed by LEPELLE NORTHERN WATER for overall implementation and cost management of the Construction Site on behalf of LEPELLE NORTHERN WATER in accordance with General Conditions of Contract for Construction Works, 2015, OHS Act 85 of 1993, Construction Regulations 2014 and COLTO Standard Specifications for Road and Bridge Works for State Authorities 1998. The principal contractor, which is Principal Contractor, executes the construction works as per the tender and relevant legislation. Including duties provided in regulation 6 of the Construction Regulations, 2014

Health and Safety Consultants:

A Health and Safety Agent has been appointed by Sigodi Marah Martin Management on behalf of Lepelle Northern Water : Refurbishment Of The Ebenezer WTW Ref: REW 1107211 to perform the duties of Health and Safety Manager or Agent to ensure that Principal Contractor adheres to all Health and Safety standards , legislation required and must be complied with as per relevant and applicable legislation in terms Health and Safety *Inter Alia* OHS Act 85 of 1993 , National Environmental Management Act 1998 (Act 107 of 1998) and Construction Regulations 2014

Principal Contractor:

Principal Contractor are the appointment principal contractor by LEPELLE NORTHERN WATER to execute the civil works as per tender and the contractor to which compliance with the Health and Safety legislation on site will be required, in executing civil works at the Lepelle Northern Water: Refurbishment of the Olifantspoort WTW

Principal Contractor carries primarily accountability and responsibility for ensuring full compliance to the provision of the OHS Act as contemplated by Section 37(2) written agreements and Construction Regulation (7). The section 37(2) of the OHS Act agreement must be signed by Lepelle Northern Water and Principal Contractor be part of the Health and Safety File

3. COMPLIANCE

Health and Safety Agent on behalf of Lepelle Northern Water requires all of its Contractors to comply with legislation as part of the contract. All expenses to the Contractor, which result from compliance with this legislation as well as special requirements specific to the site, will be for the Contractors account.

No claim or standing time will be accepted as a result of any costs or delays being incurred due to Principal Contractor their sub-contractors not complying with legislation, this SHE specification or their SHE Plan approved by the Lepelle Northern Water and Health and Safety Agent

Should Principal Contractor appoint a sub-contractor, the Principal Contractor would then have the same role and responsibility in relation to the sub-contractors on the Contract No: Lepelle Northern Water: Refurbishment of the Olifantspoort WTW

The requirements within this specification should not be considered to be exhaustive and Health and Safety Agent on behalf of Lepelle Northern Water reserves the right to add, delete or modify conditions where it is considered to be appropriate.

The following applicable legislation has been identified which may impact the Project. The list is not an exhaustive:

- Construction Regulations, 2014
- The Constitution of the Republic of South Africa (particularly Section 24 of the Bill of Rights).
- Occupational Health and Safety Act 1993 (Act 85 of 1993) and its Regulations.
- National Environmental Management Act 1998 (Act 107 of 1998).
- National Road Traffic Act (93 of 1996) National Environmental Management: Waste Act 59 of 2008
- National Environmental Management Act 107 of 1998 and Amendments
- Air Quality Act 39 of 2004
- Hazardous Substances Act 15 of 1973^[L]_{SEP}]
- National Water Act 36 of 1998
- Conservation of Agricultural Resources Act 1983 (Act 43 of 1983).
- Mine Health and Safety Act 29 of 1996
- Compensation for Occupational Injuries and Diseases Act No 130 of 1993 (COIDA)
- Applicable South African National Standards (SANS).
- ISO 9001:2008 -Quality Management Systems requirements^[L]_{SEP}]
- ISO 14001:2004-Environment Management Systems requirements^[L]_{SEP}]
- OHSAS 18001:2007 -Occupational Health and Safety Management Systems Requirements

a) COVID -19

Compliance with the **Occupational Health and Safety Act No.85 of 1993 and the Disaster Management Act, of 2002, and the subsequent regulations**. This specification is compiled in line with the COVID-19 Baseline Risk Assessment. Principal Contractor must use it as a reference document when developing their COVID-19 response plans.

No	Activity	Responsibility	Target date
1	Procurement of thermometers, masks, sanitisers and hand soap and other COVID 19 supplies	Principal Contractor	
2	Review risk assessments to include risks associated with COVID 19	Principal Contractor	
3	Development of COVID 19 standard operating procedures & review SHE plan (in line with these guidelines)	Principal Contractor	
4	Verification of compliance	Principal Contractor	
5	Approval by OHS to resume construction sites	Principal Contractor	
6	Resumption of construction activities	Principal Contractor	
7	Re-induction of all contractors	Principal Contractor	
8	Toolbox talks	Principal Contractor	
9	Regular cleaning and disinfection of surfaces	Principal Contractor	

4. LETTER OF GOOD STANDING – (COIDA)

The Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (**COIDA**) provides for compensation for disablement caused by occupational injuries or diseases sustained or contracted by employees in the course of their employment, or for death resulting from such injuries or diseases.

Principal Contractor must have their Letter of Good Standing in the Health and Safety file including the Section 6 (A)- Annexure 13 W.Cl.2 and other related forms

5. NOTIFICATION OF CONSTRUCTION WORK

In terms of Construction Regulations, 2014:

4(1) A contractor who intends to carry out any construction work other than work contemplated in regulation 3(1), must at least 7 days before that work is to be carried out notify the provincial director in writing in a form similar to annexure 2 if intended construction work will –

- a) Include excavation work;
- b) Include working at a height where there is risk of falling;
- c) Include the demolition of a structure
- d) Include the use of explosives to perform construction

Principal Contractor must therefore provide Notification of Construction in terms of Construction Regulations, 2014. Therefore, **No** construction works shall commence before notification of construction work has been submitted at the relevant Department of Labour by the Principal Contractor. The copy of the notification stamped on both pages must be provided in the Safety File.

6. CONSTRUCTION WORK PERMIT

Regulation 5(1), 5(5) and 5(6)

Where a construction work permit is required as contemplated 3(1), the client must, without derogating from his or her health and safety responsibilities or liabilities, appoint a competent person in writing as an agent to act as his or her representative

Construction Regulation 3 is applicable.

3 (1) A client who intends to have construction work carried out, must at least 30 days before that work is to be carried out apply to the provincial director in writing for a construction work permit to perform construction work if the intended construction work will –

- (a) Exceed 365 days will involve more than 3600-person days of construction work; or
- (b) The tender value limit is grade 6,7,8 or 9 of the Construction Industry Development Board (CIDB) grading

Therefore, in terms of Lepelle Northern Water: Refurbishment of the Olifantspoort WTW

The client or Clients Health and Safety Agent will must apply for a permit due to the requirements of the Construction Regulation fall within scope of this project.

7. NON-CONFORMANCES / WORK STOPPAGE

Health and Safety Agent reserves the right to stop work and issue a non-conformance report whenever safety, health or environmental violations are observed for both Principal Contractor and their sub-contractors. Expenses incurred as a result of such work stoppage and standing time shall be for the Principal Contractor account. Any non-conformances/findings/observations found in these audits/inspections on sub-contractors shall be raised and discussed with the relevant Principal Contractor.

The conditions that lead to work stoppages are based on but not all encompassing:

Management of change – this is when there are changes to the work environment (e.g.: climatic changes) and/construction work (e.g.: modifications to the design), in any phase of the construction project, and/or amendments with regulations and/or legislative amendments; unsafe acts/behaviors;

Unsafe working conditions: Principal Contractor and subcontractors shall ensure that no other work is being performed during this time. Should the estimated time from the outset to make the area safe where life threatening/imminent danger situations exist, then the area will be barricaded and a sign placed with the wording “Unsafe Area – Authorised Access Only”.

Principal Contractor shall address the unsafe working condition and then revise the relevant sections in the SHE Plan to accommodate the changes.

8. SHE POLICIES

Principal Contractor and sub-contractor shall each have a SHE Policy authorised by OHS Act Section 16(1) appointee that clearly states overall, SHE objectives and commitment to improving Safety, Health, Environment and Quality performance and Compliance. Including but not limited to:

- HSE Policy
- Disciplinary policy for employees transgressing occupational health, safety and environmental requirements
- Drug, alcohol & substance abuse policy
- Smoking policy
- HIV/AIDS policy

9. SHE PLAN

a) SHE Plan

In terms of Construction regulation 7(1): Principal Contractor and any sub-contractors appointed must provide a Health and Safety Plan which must be constantly be reviewed as per regulation:

- (a) Provide and demonstrate to the client a suitable, sufficiently documented and coherent site-specific health and safety plan, based on the clients documented health and safety specifications contemplated in regulation 5(1)(b), which plan must be applied from the date of commencement

of and for the duration of the construction work and which must be reviewed and updated by the principal contractor as work progresses;

- (b) Open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, which must be available on request to an inspector, the client, the client's agent or a contractor

Including but not limited to the following documentation:

- Duties and safety responsibilities of all appointed persons on the project.
- Selection, placement and training procedures, including induction and on-going training in 'Basic Safe Work' and Occupational Health and Safety training for newly hired or promoted supervisors.
- Baseline risk assessments, review & monitoring plan & safe work procedures.
- Occupational health and safety goals for the project and arrangements for monitoring and reviewing occupational health and safety performance.
- Occupational Health and Safety communications and meetings, including daily safe task instructions and project safety meetings.
- Assessment of sub-contractors, including requirements for safety plans
- Nomination of personnel to carry out safety inspections. The task may be shared with other duties and provided within the resources of individual gangs and may be rotated
- Rules and regulations including safety procedures the Contractor has in place for recurring work activities.
- Personal protective equipment rules.
- Control of dangerous and hazardous substances.
- Hazard identification and risk control, such as Risk assessments, Daily Safe Task Instructions and communication.
- Audits to ensure compliance with safety plans.
- Daily site safety inspections and audits.
- Inspection of plant, tools and equipment prior to introduction to site and regularly thereafter.
- Accident incident reporting, recording, investigation and analysis, which ensure that corrective action, are taken and this action is communicated to report initiators.
- First aid arrangements.
- Evacuation and emergency planning.
- Substance abuse program
- Record keeping
- Personal Protective equipment arrangements.
- Workers welfare facilities.
- Induction and toolbox talk's arrangements.
- Training arrangements.

b) Fall Protection Plan

Principal Contractor must include a Fall Protection Plan as contemplated in regulation 10. Therefore, must appoint a competent person responsible for the preparation of the plan include the requirements in regulation 10(2), continuously adhere and implement the fall protection plan as per regulation 10(3), 10(4) and 10(5).

c) Traffic Management Plan

The scope - the safe movement of vehicular and pedestrian traffic, protection of workers from passing traffic, provision for access to properties located within the limits of Network Road .The design, construction, maintenance and implementing of any necessary temporary roadways and detours, the provision of traffic controllers, the installation of temporary signs, road markings, lighting , safety , Jersey, temporary speed humps and solid barriers as per Road Traffic Act, 1989 (Act No. 29 of 1989), Road Traffic Sign Applications .

Principal Contractor must provide a comprehensive and detailed a Traffic Management Plan and must include Traffic Control Plans, Emergency Readiness Plan, Objectives of the Traffic Management Plan,

Traffic Management Officer, Communications with community, stakeholders. The traffic Management must be in accordance with the South African Road legislation and Signs Manual as modified to suit site conditions. Application of the Act shall apply throughout the Republic: Provided that any provision thereof shall only apply to those areas of the Republic in respect of which the Road Traffic Act, 1989 (Act No. 29 of 1989), did not apply before its repeal by section 93, as from a date fixed by the Minister by notice in the *Gazette*.

10. APPOINTMENTS AND COMPETENCIES

Principal Contractor must submit in writing the appointments and competences of all competent person appointed, which form part of the SHE Plan in terms of Construction Regulation 8. An organogram must also submit including all legislative appointments, defined responsibility structure, OHS meetings and period of appointment. All appointees and appointers must sign the legislative appointments.

Principal Contractor Chief Executive Officer, in terms of Section 16(1) of the Occupational Health and Safety Act (Act no 85 of 1993), is to ensure that the Employer (as defined in the Occupational Health and Safety Act (Act no. 85 of 1993) – hence the Contractor) complies with the Occupational Health and Safety Act (Act no 85 of 1993) and Construction Regulations (2014) as well as all other applicable legislative requirements.

a) Construction Managers

Principal Contractor, appointed in terms of Construction Regulations is responsible for implementing and maintaining the SHE Plan. Regulation 8 (1) A principal contractor must in writing appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed.

No construction manager appointed under sub regulation 8(1) may manage any construction work on or in any construction site other than the site in respect of which he or she has been appointed.

Regulation 8(7): Principal Contractor Construction managers, in writing must appoint construction supervisors responsible for activates on site and ensuring compliance with occupational health and safety regulations on site. Regulation 8(8) Principal Contractor considering and depending on the size of the project or construction site must appoint in writing one or more competent employees for different sections to assist the construction supervisor envisaged in sub regulation (7)

REGULATION	APPOINTMENT /COMPETENCIES /RESPONSIBILITY
1. 5(1)(K)	Lepelle Norther Water appointment of Principal Contractor
2. 8(1)	Construction Manager - Principal Contractor: Managing Construction works and ensuring Health and Safety Compliance
3. 8(2)	Assistant Construction Manager and Traffic Management Officer – Principal Contractor: Assist the Construction Manager
4. 8(5)	Health and Safety Officer - Principal Contractor: Ensuring Health and Safety Compliance

5. 8(7)	Construction Supervisor - Principal Contractor: Supervision of certain type of construction works
6. 7	Appointment and management of Sub-contractor – Principal Contractor
7. 9(1) Risk Assessor	Risk Assessor to conduct risk assessments - Principal Contractor

8. 10(1)(a)	Appointee for preparation of fall protection plan - Principal Contractor
9. General Safety Regulation 3	First Aider - Principal Contractor
10.12(1) Temporary works designer	Appointee for inspect and approve erected temporary works on site - Principal Contractor
11.12(2) Temporary works Supervisor	Appointee for Supervision of Temporary works on site – Principal Contractor
12. 12(3)(a) Temporary Works Erector	Erect temporary works on site - Principal Contractor
13. 12(3)(f) Temporary Works Inspector	Inspector of Temporary Works on site - Principal Contractor
14. 13(1)(a) Excavation Supervisor	Excavation Supervision - Principal Contractor
15. 13(2)(h) Excavation Inspector	Excavation Inspection - Principal Contractor

16.14(1) Supervisor demolition work	Demolition Supervision - Principal Contractor
17. 16(1) and 16 (2) Scaffold Supervisor, Erector, Inspector	Supervision, Inspection and Erection of Scaffolding - Principal Contractor
18. 14(11) Competent Person for Explosives	Legally certified competent explosives person Principal Contractor
19. 20(1) Batch Plant Supervisor	Supervision of Batch plant - Principal Contractor

20. 22(a) Crane Supervision	Certified Crane Supervisor Principal Contractor
21. 23(1)(d) Construction Vehicle and Mobile Plants Operator	Certified Plant Operator and Vehicle - Principal Contractor
22.24(d) Electrical Machinery Inspector	Inspection of Electrical Machinery - Principal Contractor
23. 24(e) Temporary Electrical Installations Inspector and Controller	Control all temporary electrical installations - Principal Contractor

J24.28(a) Stacking and Storage Supervisor	Supervision of Stacking and Storing - Principal Contractor
25.29(h) Fire Equipment Inspector	Inspection of Fire Equipment - Principal Contractor
26.29(i) Fire extinguisher Users	Operator of extinguisher - Principal Contractor
27. Hand Tool Inspector	Inspection of Hand tool inspector - Principal Contractor
28. 20(2)(g)(i) Person to control and do the issuing and collection of Cartridges and nails/studs	Certified competent control of explosive equipment – Principal Contractor
29.21(2)(b) Explosive actuated fastening device inspector	Inspection of explosive device fastening- Principal Contractor
30. 21(2)(g)(i) Explosive actuated fastening controller	Controller of explosive device fastening- Principal Contractor
31. Explosive Operator	Operator of explosive device- Principal Contractor
32. General Safety Regulation 13A	Ladder Inspector- Principal Contractor

b) Construction Health and Safety Officers/ Practitioners

Regulation 8(5) and 8(6) Principal Contractor must appoint a full time Health and Safety Officer in writing that is registered with approved statutory body. Therefore, the appointed Construction Safety Officer must be registered with the statutory body approved by Chief Inspector the South African Council for Project and Construction Management Professionals (SACPCMP) and have SAMTRAC or safety diploma and at least 4 years relevant construction safety experience.

c) Occupational Health and Safety Representatives

Section 17 and Section 18 of the OHS Act provides for appointment of the Health and Safety Representative and functions thereof. Every employer who has more than 20 employees in his employment at any workplace, shall designate in writing for a specified period health and Safety representative for such workplace. Principal Contractor must therefore appoint a Health and Safety Representative if Principal Contractor employs on site on than 20 employees including sub-contractors and their employees. Shall appoint one SHE representative for every 50 employees or part thereof.

d) Health and Safety Committee

In regards to section 19 and section 20 of the OHS Act 85 of 1993 Principal Contractor must establish an occupational health and safety committee consisting of all the designated occupational health and safety representatives together with a number of management representatives. The management representatives shall not exceed the number of occupational health and safety representatives on the committee. The members of the occupational health and safety committee must be appointed in writing. Representatives from Health and Safety Agent will act as co-opted members to the Health and Safety Committee meetings as and when required. Principal Contractor is required to compile a schedule for the statutory occupational health and safety committees for the duration of the project and supply the proposed schedule in the SHE Plan.

11. TRAINING

Inductions and Training must be submitted with SHE Plan and SHE File with all the registers for specific training, which will be conducted. Training is to be carried out as required by the Occupational Health and Safety Act (Act no 85 of 1993) and the Construction Regulations (2014). All training courses required and attended are to be included in the principal contractor's SHE File. All members of Principal Contractor site management as well as all the persons appointed responsible for occupational health, safety and environmental management in terms of the Construction Regulations (2014) and other legislative requirements, will be required to attend a SHE System Induction training

Construction Site induction carried out by the Principal Contractor

The aim of this section is to outline expectations in respective of the scope of the training, which Principal Contractor and Sub Contractor employees receive. The scope of the training includes but is not limited to the type of work being performed and the relevant procedures. Additional to the requirements, will be that Principal Contractor and sub-contractors would have the appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training, certificates and are under competent supervision. Records of all training and qualifications of all contractor employees must be kept. Principal Contractor shall maintain comprehensive records of all employees under his control (including all employees of the sub-contractor) attending induction training.

Acknowledgement of receiving and understanding the induction must be signed by all persons receiving the induction respectively and the Induction Register be kept in the Health and Safety File

When there is an amendment to the Acts and/or to the regulations, SHE specification and SHE plan, all affected staff shall undergo the relevant re-training. For appointees that do not meet the minimum competencies as indicated above: full compliance to the above competencies would be expected. A training plan must be submitted on a monthly basis to reflect progress of meeting the minimum training requirements.

Medicals

Prior to induction all Principal Contractor and Sub-contractor employees must undergo a pre-employment medical examination and found fit for duty. A copy of the certificate of medical fitness must be presented for permanent record at the induction venue and kept at Health and Safety File and site offices for permanent record.

Job specific induction carried out by the Principal Contractor/Sub-Contractor Supervisor on the site

Principal Contractor shall ensure that all his employees and his contractors' employees working on the site are adequately trained in the type of work/tasks to be performed. The training shall extend to include relevant procedures, hazard identification and risk assessment. They shall have the appropriate qualifications, certificates and are under competent supervision. Copies of records of appropriate training and qualifications for all employees must be kept and maintained.

Principal Contractor shall ensure that all his employees, agents and contractors have undergone the Project safety induction program prior to commencing work on site. Appropriate time must be set-aside for training (induction and other) for all employees.

All employees and visitors on site shall carry the proof of induction training. The relevant site Risk Control/SHE Training Officer shall keep a database of all records pertaining to induction and will inform contractors of pending expiry.

Principal Contractor shall ensure that all his employees and sub-contractor employees undergo general work induction with regard to the approved SHE plan, general hazards prevalent on the construction site, construction risk assessment, rules and regulations, and other related aspects. The induction should also include identification of sensitive features such as wetlands areas, red data species, graves, etc.

Principal Contractor will be required to ensure that before an employee commences work on the project that the supervisor in control with responsibility for the employee has informed the employee of his scope of authority, any hazards associated with the work to be performed as well as the control measures to be taken. This will include man- task specifications, the discussion of any standard task procedures or hazardous operational procedures to be performed by the employee. Principal Contractor is to ensure that the supervisor has satisfied himself that the employee understands the hazards associated with any work to be performed by conducting task/job observations.

Other Training

All Operators, Drivers and Users of construction vehicles, mobile plant and other equipment must be in possession of valid proof of training. All employees in jobs requiring training in terms of the Act and Regulations must be in possession of valid proof of training.

The principal contractor is required to have a promotion and awareness program in place to create an occupational health and safety culture within employees E.g.: Toolbox Talks, Videos, Health and Safety circles.

12. CONTRACTOR'S SITE FACILITIES AND ACCESS CONTROL TO THE CONSTRUCTION SITE

Principal Contractor must manage site facilities as per Environmental Regulations for workplaces, Facility Regulation, Security Personnel, General safety regulation as framed under the OHS Act.

Principal Contractor must establish site access rules and implement and maintain these throughout the construction period. Access control must, amongst other, include the rule that non-employees will not be allowed on site unaccompanied.

Principal Contractor shall provide a guardhouse for a security working during the day and at night. The guardhouse should be in good condition and at-least meet minimum requirements as per environmental regulations for workplaces.

Temporary Facility

Ablution facilities, Site Offices and Amenities, lay down and Storage, Site Access, Temporary Site Services Principal Contractor employees are registered on the site access system and are issued with access certificates. Access certificates to be kept with the Contractor at all times within the site.

Principal Contractor and his sub-contractors shall adhere to the site traffic plan to ensure the safe movement of all construction related mobile plant. Principal Contractor shall adhere to the pedestrian and vehicle routings and Traffic Authority.

The project/site security arrangements are: Site Safeguarding: Nets, Canopies, Platforms, Fans, Barriers etc. to protect members of the public passing / entering the site

13. RISK MANAGEMENT AND ASSESSEMENTS

Regulation 9(1) A contractor must, before the commencement of any construction work and during such construction work, have risk assessments performed by a competent person appointed in writing, which risk assessments form part of the health and safety plan to be applied on site

Principal Contractor must identify the construction site SHE risks and hazards before commencing any construction works on site as per regulation 9 and his/her subcontractors to identify hazardous and potentially hazardous work operations. Principal Contractor needs to demonstrate that the site hazards and the contractor's activity risks and the mitigating measure have been considered in his risk assessments. ^[13]_[SEP]

The Occupational Health and Safety Act (Act no. 85 of 1993) specifically requires that employers shall provide and maintain working environments that are safe and without risk to health. The general awareness of hazards needs to be raised as work ethic to maintain a safe and risk-free environment on an on-going basis. This is achieved by continuous risk assessments, a form of risk assessment that takes place as an integral part of day-to-day management.

There must be method statements or written safe work procedures for all the Principal Contractor activities

Emerging risks and hazards must be managed during construction work. Activity based risk assessments must be conducted by an appointed and competent person of the Principal Contractor on a regular basis. Principal Contractor prior to daily work beginning on site shall conduct ^[13]_[SEP] Preliminary hazard identification.

Site Specific Health and Safety Hazards

Principal Contractor Site-Specific list may not be totally comprehensive and it is the duty of Principal Contractor to ensure that all the hazards are identified, before and during the project, and the necessary

activity-based risk assessments are carried out. These risk assessments shall form part of the SHE Plan. The site-specific health and safety hazards are on continuous during the duration of the project.

Hazardous and potentially hazardous work operations and Emerging Risks^[SEP]

Principal Contractor shall identify hazards and potentially hazardous work operations. For each work operation Identified, the Contractor shall supply Risk Assessment, which shall:

1. Describe the operation to be performed in the sequence of the basic job steps. ^[SEP]
2. Identify and rank the hazard or potential hazard. ^[SEP]
3. A plan to review the risk assessments as the work progresses and changes are introduced; ^[SEP]
4. Describe how the hazard will be managed therefore a documented plan and Safe Working Procedures, and its relevance to the risk assessment, ^[SEP]to mitigate, reduce or control the risks and hazards that have been identified.
5. ^[SEP]A plan to monitor the application of the Safe Working Procedures
6. Signature of appointed competent person conducting risk assessment; and Signature of Principal Contractor management and employees involved in risk assessment. ^[SEP]
7. Review plan; ^[SEP]Based on the risk assessments, the principal contractor must develop a set of site-specific occupational SHE rules that will be applied to regulate the health, safety and environmental aspects of the construction work. ^[SEP]
8. Identify the responsible person for each mitigation action.

The hazards and risk to which persons, plant, vehicles and facilities may be exposed during the construction should be identified and evaluated. The aspects and impacts resulting in environmental pollution or degradation should also be identified and evaluated. Measures to reduce or control these risks or hazards should be defined during this assessment.

Principal Contractor must ensure that all employees under his or her control are informed instructed and trained by a competent person regarding any hazard and the related work procedure and or control measure before any work commences, and thereafter at the times determined in the risk assessment monitoring and review plan of the relevant site.

During construction work, Principal Contractor, his sub-contractors or Lepelle Northern Water representative or agent may identify emerging hazards and risks. For each such newly identified hazard or risk, the Lepelle Northern Water representative or agent shall review the baseline site hazard identification and the relevant section(s) of the Baseline Risk Assessment during Audits. The hazard identification shall be submitted to the Principal Contractor who will review his own risk assessments and relevant sections of the SHE Plan, as well as those of the sub-contractors.

Principal Contractor representative or agent will prepare and submit to the Lepelle Northern Water representative or agent, both documents for approval.

Principal Contractor and his subcontractors shall not proceed with the work/operation in hazardous areas until the Client/Agent's representative has reviewed the Risk Assessment and has approved and signed the revised SHE plan and issued a valid permit to work.

Principal Contractor shall on a daily basis and for every task to be performed, conduct a pre-task risk assessment with all employees involved with the task(s). The pre-task risk assessment will form the basis of the daily pre-job brief/toolbox talks prior to the start of work. Proof of communication as well as confirmation that it was received and understood by all will be noted on a standard form, which will be kept at the job site during the job execution. The completed signed pre-task risk assessment form will be filed in the Principal Contractor **SHE** files.

The Contractor must ensure through his risk management process the hierarchy of controls stipulated as follows, are implemented:

1. **Eliminate** - The complete elimination of the hazard. [L] [SEP]
2. **Substitute** - Replacing the material or process with a less hazardous one. [L] [SEP]
3. **Redesign** - Redesign the equipment or work process. [L] [SEP]
4. **Separate** - Isolating the hazard by guarding or enclosing it. [L] [SEP]
5. **Administrate** - Providing control such as training, procedures etc. [L] [SEP]
6. **Personal Protective Equipment (PPE)** - Use of appropriate and properly fitted PPE where other controls are not practical. (PPE as the last resort) [L] [SEP]

14. SAFE WORK PROCEDURES AND PRACTICES

Principal Contractor is to provide an indication of the activities that require safe work procedures and practices to mitigate the identified risks. There must be written safe work procedures or method statements for all activities. Risk Assessments should refer to the safe work procedures.

- A safe working procedure should be written when
 - Designing a new job or task;
 - Changing a job or task;
 - Introducing new equipment or substances; and
 - Reviewing a procedure when problems have been identified, e.g. from near miss incidents or accident/incident investigation. The safe working procedure should identify:
 - The supervisor for the task or job and the employees who will undertake the task
 - The tasks that are to be undertaken that pose risks
 - The equipment and substances that are used in these tasks
 - The control measures that have been built into these tasks
 - Any training or qualification needed to undertake the task
 - The personal protective equipment to be worn;
 - Actions to be undertaken to address safety issues that may arise while undertaking the task
 - The methodology that will be used to ensure compliance with the method statement/ procedure.
 - Any other information deemed to be necessary by the Lepelle Northern Water Project team.
 - Associated responsibilities and authorities
 - Authorised staff positions to conduct the relevant activities contained in the Safe Work Procedure.

15. EMERGENCY PREPAREDNESS AND RESPONSE

Principal Contractor and his sub-contractors must develop a site-specific emergency response plan and contingency plan, appoint a competent person to act as emergency controller and/or coordinator. [L] [SEP]

Principal Contractor, together with his sub-contractors, must develop their own emergency response for both site and offices and submit this plan to Lepelle Northern Water representative or agent for approval. Principal Contractor must ensure that his employees and his sub-contractor employees are trained on this plan. Principal Contractor must initiate his own emergency drills and must hold regular practice drills

of contingency plans and emergency procedures to test them and familiarise employees with them, have written arrangements in place with his other contractors regarding the responsibility of the other contractors towards their own injured and/or ill employee [SEP]

Principal Contractor must provide third parties and other specialised sub-contractors with training of emergency response plan and contingency plan, such training must be writing be part of SHE Plan.

General Safety Regulations promulgated in terms of the Occupational Health and Safety Act (Act no. 85 of 1993) provides for a qualified First Aider and First Aid Equipment regulation 7 [SEP]

16. ENVIRONMENTAL MANAGEMENT

Principal Contractor must comply with the National Environmental Management Act 107 of 1998 and Amendments, therefore must provide a comprehensive Environmental Management Plan

Spillage of Hazardous Chemical Substances

Principal Contractor must have register of Hazardous Chemical Substances and Material Safety Data Sheets should be kept on site. Herbicide usage [SEP]

Principal Contractor must have an Herbicide register for usage to be compiled and maintained if such will be utilised on site. The application of herbicides to be in accordance with the Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act No. 36 of 1947. Only approved and tested herbicides with a low environmental risk shall be used. [SEP] Only registered pest control operators may apply herbicides on a commercial basis. All staff applying herbicides must be trained in the application of herbicides.

Fire hazard

Principal Contractor shall comply with regulation 29 in terms of Fire precautions on construction site, ensure that staff are educated in fire prevention and will be held responsible to avoid the risk of fire. No area is to be denuded of vegetation to create firebreaks, to prevent or make fires. No open fires are allowed on site. Principal Contractor must ensure that operations are in compliance with statutory requirements at all times.

Waste

Principal Contractor must compile and submitted waste management plan included the SHE File before commencement of construction works on site. Registers of hazardous and non-hazardous waste to be kept on-site. Principal Contractor must include in the SHE File and a record of disposal and continuous updating of records. [SEP] No waste, whether it be biodegradable or not, is to be left on site once work has ended. [SEP] Domestic and hazardous waste generated will not be burned, buried, or disposed of on site or other Landowners' property but will be controlled and removed to a registered waste site on a regular basis (Daily/Weekly/Monthly) must be taken to the appropriate local government site [SEP]

Principal Contractor and sub-contractor working on site must ensure that oil, fuel, and chemicals are confined to [SEP] specific and secure areas throughout the construction period and appropriate signage. These materials must be stored in a barricade area with adequate containment for potential spills and leaks. Principal Contractor must ensure that sufficient waste bins / containers are made available for waste control.

Dust and Noise

Principal Contractor shall monitor dust and noise caused by mobile equipment, generators and other equipment during construction must have a Dust and Noise Management Plan. Factors such as wind can often affect the intensity to which these impacts are experienced. To ensure that noise does not constitute a disturbance during construction activities, all construction works shall occur between specific working hours. Dust suppression measures must be in place to reduce the dust caused by the movement of heavy vehicles.

Environmental Incidents

All environmental incidents such as pollution (air, water, land, noise, etc.), bird kills, animals killed, plants destroyed, public complaints etc. must be reported to Lepelle Northern Water or representative or agent within 24 hours of its occurrence. All environmental incidents occurring on site must be recorded; detailing how each incident was dealt with. Proof thereof must be kept in an incident register. Principal Contractor will be held liable for any infringement of statutory requirements of the National Environmental Management Act of 1998 or any other relevant legislation.

Water

Principal Contractor must comply with regulation 26. Should observe and water restrictions on site. Must provide water for consumption for by employees during extreme weather conditions. Should any pollution of the watercourse occur, t Lepelle Northern Water or representative or agent the Department of Water Affairs (DWA) must be notified immediately via the ECO/Corporate Environmental Advisor.^[1]_{SEP} Bore hole water must be verified for human consumption fitness. All incidents related to water contamination to be reported within 24 hours. Chemical toilets may not be within close proximity of the drainage lines / ways.

Flora

All suitable and rare flora and seeds will be rescued and removed from the site. They must be suitably stored, for future use in rehabilitation. The felling and/or cutting of trees and clearing of bush will be minimised. Bush will only be cleared to provide essential access for construction purposes. The spread of alien vegetation must be minimised. Any incident of unauthorised removal of plant material, as well as accidental damage to priority plants, will be documented.

Fauna

No species of animal may be poached, snared, hunted, captured or wilfully damaged or destroyed. Snakes and other reptiles that may be encountered on the construction site will not be killed unless the animal endangers the life of an employee. Principal Contractor will ensure that the work site is kept clean and free from rubbish, which could attract pests.

Soil pollution management

Topsoil will be temporarily stockpiled, separately from (clay) subsoil and rocky material, when areas are cleared. If mixed with clay sub-soil the usefulness of the topsoil for rehabilitation of the site will be lost. Stockpiled topsoil will not be compacted but will be replaced as the final soil layer. No vehicles will be allowed access onto the stockpiles after they have been placed. Stockpiled soil will be protected by erosion-control berms if exposed for a period of greater than 14 days during the wet season. The need for such measures will be indicated in the site-specific report. Topsoil stripped from different sites will be stockpiled separately and clearly identified as such. Topsoil obtained from sites with different soil types will not be mixed. Topsoil stockpiles will not be contaminated with oil, diesel, petrol, waste or any other foreign matter, which may inhibit the later growth of vegetation and microorganisms in the soil.

Aesthetic and visual impact management

Damage to the natural environment must be minimised. Trees and tall woody shrubs will be protected from damage to provide a natural visual shield. Excavated material will not be placed on such plants and movement across them will not be allowed, as far as practical.

All above ground structures will be located in areas where the visual impact from roads, houses etc. is minimised. All above ground structures could be treated or painted to blend in with the natural environment. Cut and fill areas, river and stream crossings and other soil stabilisation works will be constructed to blend in with the natural environment.

All finds of human remains will be reported to the nearest police station. Human remains from the graves

of victims of conflict, or any burial ground or part thereof which contains such graves and any other graves that are deemed to be of cultural significance may not be destroyed, damaged, altered, exhumed or removed from their original positions without a permit from the South African Heritage and Resource Agency (SAHRA).

17. SHE AUDITS AND INSPECTIONS

17.1 Compliance with OHS ACT and Construction Regulations

In terms of Construction Regulations 2014, regulation 5(1)(n) to 5(1)(q) the client must take reasonable steps the client must ensure periodic health and safety audits and document verification are conducted at intervals mutually agreed upon between the principal contractor any contractor, but at least once every 30 days. Regulation 5(1)(q) stop any contractor from executing a construction activity which poses a threat to health and safety of persons

17.2 Contractor SHE Performance Evaluation

Health and Safety Agent shall evaluate contractor SHE performance on an on-going basis against the requirements of OHS ACT and Construction Regulations. There will be monthly audits/inspections conducted by Health and Safety Agent on Principal Contractor and/or sub- contractors. The contractor's site manager or his representative shall attend these audits. Find SHE Performance Evaluation attached.

18. INCIDENT MANAGEMENT (PRINCIPAL CONTRACTOR AND SUB- CONTRACTORS)

Reporting of Accidents and Incidents

Principal Contractor shall compile and implement procedure for Reporting and investigation of incidents – This document sets out the procedures to be followed when reporting, recording and investigating incidents that occur on a construction site.

Principal Contractor must report to Lepelle Northern Water or representative or agent within 24 Hours and to the Provincial Director of the Department of Labour within seven days from date of incident (Section 24 of the Occupational Health and Safety Act (Act no. 85 of 1993)

Principal Contractor shall report all incidents/accidents as required in terms of legislation including near miss incidents, first aid, medical treatment, lost time incidents (lost time injuries and fatalities); Section 24 and 25 incidents; electrical contact; major equipment damage; chemical spillage and other environmental incidents within 24 hours or before the end of the work shift. ^[17]_{SFP}

All fatal incidents, employee and contractor incidents, shall be reviewed by the committee within one week after the incident and the members of the Project Progress meeting notified of corrective actions taken. Preliminary investigation information shall be shared ^[17]_{SFP}

A comprehensive and detailed investigation report shall be submitted to the Health and Safety Agent manager within 7 -14 days after the incident which shall include: Date, time and place of incident; Description of incident; Root cause of incident/accident; Type of injury (if any); Medical treatment provided (if any); Persons involved; Names of witness/s; Corrective action to prevent recurrence (with clear deadlines and responsible persons). It is required that all corrective action is closed out within 3 months. If this is not practicable within the time frame, then it is to be submitted at a later date agreed to by the Lepelle Northern Water or Gatsheni Sizwe (Pty) Ltd. ^[17]_{SFP}

Health and Safety Agent shall ensure that all accidents/incidents are investigated by him/her and are discussed at the SHE committee meeting held on site. Accidents/incidents shall be investigated and recorded in terms of the requirements of the Occupational Health and Safety Act, the National Environmental Management Act and National Water Act as applicable.

Please note that providing the Accident/incident investigation report does not exempt the Principal Contractor from providing accident reports required by Statutory Authorities, in particular, the Contractors' responsibility for reporting accidents in accordance with the requirements of the OHS Act and COID Act.

Health and Safety Agent will participate in any accident/incident investigation if the accident/incident is directly linked to any activity within the scope of the construction project. Principal Contractor shall keep on site/workplace a record of all accidents and incidents reported in the form of the OHS Act Annexure 1 investigation form as referenced in the OHS Act. (Incident Investigation Report) Health and Safety Agent on behalf of Lepelle Northern Water reserves the right to conduct an independent investigation in any incident

Principal Contractor shall report **all Incidents/Accidents** where an employee is injured on duty to the extent that he:

- Dies
- Becomes unconscious
- Loses a limb or part of a limb
- Is injured or becomes ill to such a degree that he is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he was usually employed

Or where -

- A major incident occurred
- The health or safety of any person was endangered
- Where a dangerous substance was spilled
- The uncontrolled release of any substance under pressure took place
- Machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- Machinery ran out of control

To Lepelle Northern Water or representative or agent within two days and to the Provincial Director of the Department of Labour within seven days from date of incident (Section 24 of the Occupational Health and Safety Act (Act no. 85 of 1993) and General Administrative Regulations), except that, where a person has died, has become unconscious for any reason or has lost a limb or part of a limb or may die or suffer a permanent physical defect, the incident must be reported to both Lepelle Northern Water and the Provincial Director of the Department of Labour forthwith by telephone, telefax or e-mail.

Principal Contractor shall provide Lepelle Northern Water with copies of all statutory reports required in terms of the Occupational Health and Safety Act (Act no. 85 of 1993) within 7 days of the incident occurring.

Principal Contractor shall provide Lepelle Northern Water with copies of all internal and external accident/incident investigation reports, within 7 days of the incident occurring.

Accident and Incident Investigation

Principal Contractor will be responsible for the investigation of all accidents and/or incidents where employees and non-employees were injured to the extent that they had to receive medical treatment other than first aid.

The results of the investigation will be entered into the accident and/or incident register. Principal Contractor will be responsible for the investigation of all minor and non-injury incidents as described in Section 24(1)(b) and (c) of the Occupational Health and Safety Act (Act no. 85 of 1993) and for keeping a record of the results of the investigations including the steps taken to prevent similar accidents in future. Principal Contractor will be responsible for the investigation of all road traffic accidents, related to the construction activities, and for keeping a record of the results of the investigations including the steps taken to prevent similar accidents in future.


19. MONTHLY STATISTICAL REPORTING AND WEEKLY STATISTICAL REPORTING

Principal Contractor must report to Health and Safety Agent on the 2nd of every month, each company's performance which includes the following as a minimum: Incidents: Lost time /Disabling Injuries, Medical; first aid, near misses reported; Staff Complement per principal contractor and Sub-Contractor Company; Actual man-hours worked; Status on incidents investigated and recommendations closed out and Status on audits conducted and findings closed out. Principal Contractor Safety Officer where appointed must report all the SHE Matters to Health and Safety Agent on include day and time using the Weekly Report Template.

20. OPERATIONAL CONTROL REQUIREMENTS

Notices and Signs

It's mandatory for Principal Contractor and their sub-contractors to display construction notices and signage.

- The location of every first aid box; fire extinguisher and emergency exit are to be clearly indicated by means of a sign.
- At the entrance to premises where machinery is used: Restricted access on “**Authorised Person Only**” signs on entry. Notices & Signs at entrances and along perimeters indicating “No Unauthorised Entry”.
- When in use, an Explosive Power Tool shall have a sign, warning people of its use.
- Principal Contractor shall provide the signage where work is conducted and where unauthorised entry is prohibited and/or where alerting and cautioning passers-by to be aware of potential dangers.
- Notices & Signs at entrance instructing visitors and non - employees what to do, where to go and where to report on entering the site/yard with directional signs. e.g. “Visitors to report to Office”
- Notices & Signs posted to warn of overhead work and other hazardous activities. E.g. **General Warning Sign's**
- All equipment brought onto the construction site, (including motorised equipment, e.g. bobcat) that requires PPE to be worn during operation, must have the relevant PPE mandatory sign/s attached. The type and use of PPE will be placed at all entry points to the construction site.
- At every place where machinery is used a notice (English & Pictograms) shall be posted.
- Explosive Power Tool shall have a sign warning people when it is in use.
- Electrical Control Gear. A notice shall be posted so as to warn against the re-closing of a switch of  control gear whilst a person is working on such equipment.
- Emergency contact telephone numbers.
- Adequate scaffolding signs. (When applicable).
- Adequate firefighting equipment signs.
- Speed limit signs.
- “MEN WORKING ABOVE”
- “MEN WORKING BELOW”
- “ROAD CLOSED - DETOUR”
- “CAUTION - MEN WORKING - DRIVE SLOWLY”
- “EXCAVATION IN PROGRESS”
- “NO WALKWAY”
- “NO CLEARANCE”
- “WALKWAY”
- “RED AND YELLOW DANGER FLAGS”

- “DANGER - LIVE CABLES”
- Warning notices at openings through which people may fall.
- Risk based signage depending on the task being performed i.e. overhead work, hot work etc.
- No-entry signs to incomplete platforms

Barricading

Principal Contractor will erect barricading for any major operations involving site works for approval by Lepelle Northern Water . Examples are Man at work, Narrow, Arrow etc. Where there is a risk of injury, Principal Contractor will erect the area secure solid barricades. The barricade will be constructed a minimum of 1,5m away from the area. All physical barricades must be covered with netting ensuring visibility for personnel and operators of machinery.

Barricading for the prevention of access into areas with a potential risk of injury shall as a minimum be constructed of a handrail, knee-rail and appropriately supported as to prevent any person from falling into the restricted/risk area.

Working in confined spaces (manholes)

Principal Contractor will take adequate steps to eliminate or control hazards when the workers working inside confined space. Before working in an area, which contains dust, the area is to be ventilated and hosed down to settle and dampen the dust.

Principal Contractor shall provide all necessary equipment to manage confined spaces, including all necessary monitoring and rescue equipment (such as tripods, breathing equipment and the like). Principal Contractor shall ensure that all persons working in a confined space or managing entry to a confined space are appropriately trained.

Construction Vehicles and Mobile Plant

In terms of regulation 23(1) to 23 (2) provides regulations which Principal Contractor must comply with in regards to construction vehicles and mobile plant:

All lifting equipment and cranes must load test certificates.

All motor vehicles operated by Contractors within the area shall, in all respects, comply with the Road Traffic Ordinance and Road Traffic Act. Designated drivers shall be in possession of a driver's license, valid for the class of vehicle. The person or operator so authorised and shall produce such card on request shall keep the driver's license. ^[1]_[SEP]

All drivers of construction vehicles and mobile plant to have medical certificates of fitness. Each Project site will have system/ process to manage vehicle access to site. ^[1]_[SEP]

The speed limit within the bounds of the construction site is 40 km/h. ^[1]_[SEP]

No drivers or operator may talk on cell phones or two-way radios whilst driving, unless a hands-free kit is used.

It is the responsibility of the driver to ensure:

- He/ She and his/her passengers wear seat belts whilst the vehicle is in motion.
- Comply with all safety, direction and speed signs.
- Ensure that vehicle loads are properly secured and loaded onto vehicles.
- Ensure that vehicles are not overloaded.

The requirements with regard to the transportation of tools/equipment/material and persons on the back of construction vehicles must be adhered to:

- No Personnel to be transported in the back of construction vehicles with tools.

- Tools, equipment and material to be secured in order to prevent movement;
- Fixed and firmly secured seats with seat belts - Number of passengers
- The driver and all passengers must have seatbelts fastened whilst driving

Principal Contractor shall ensure that his employees and those of his subcontractors do not:

- Ride on back of elevators, cranes or other mobile plant equipment. Only competent Machine, Equipment operator in Construction Vehicles.
- Leave vehicles unattended with the engine running.
- Park vehicles in unauthorised zones/areas.

Principal Contractor shall be solely responsible for the safety and security of any of his vehicles (including private vehicles) on the premises.

A current maintenance logbook is required for all cranes and large plant equipment, and shall be available for inspection at any time. The logbook shall be located in the cabin of the crane or plant equipment.

Principal Contractor is to ensure that visibility (e.g.: switching on of lights, reflectors, barricades equipped with lights, etc.) is enhanced on all Construction Vehicles and Mobile plants in order to identify the location of the vehicles or plant.

Principal Contractor must maintain his vehicles in roadworthy condition and a valid license. These vehicles shall be subject to inspection by the Client/Agent's representative. Vehicles, which are not roadworthy, will not be allowed onto the site.

In the event where the Principal Contractor and his sub-contractor do not own the equipment, the Principal Contractor is still responsible for ensuring all conditions are complied with by all of his subcontractors or hire companies. Drivers/operators shall be responsible for the travel-worthiness of all loads conveyed by them. Precautions

Cranes and lifting equipment

Regulation 22 provides for requirement for Principal Contractor to provide risk assessments and procedure or method statements in regards cranes and for competent operators with medical certificates of plant and cranes. Compliance with Driven Machinery Regulations promulgated in terms of the Occupational Health and Safety Act (Act no 85 of 1993)

Lifting equipment must be designed and constructed in accordance with the manufactures/designer's specifications as well as generally accepted technical standards and operated, used, inspected and maintained in accordance with the manufactures requirements as well as that of the of Driven Machinery Regulations promulgated in terms of the Occupational Health and Safety Act (Act no 85 of 1993)

Lifting equipment is clearly and conspicuously marked with the maximum mass load (MML) that it is designed to carry safely. Lifting equipment shall be fitted with a load limiting device that automatically arrest the lift when the load reaches its highest safe position or when the mass of the load is greater than the MML. No person may be lifted by a lifting machine not designed for lifting persons unless in a cradle approved by the inspector of the Department of Labour.

All lifting equipment and cranes must load test certificates.

No Crane shall be used without a pre-use check and findings entered on an approved checklist. Before any cranes are established on site the following must be inspected and approved. Certification will be required for record purpose, and shall cover the following:

Brake or other device capable of holding the maximum mass should the power fail, or which is such that it shall automatically prevent the uncontrolled downward movement of the load when the raising effort is interrupted; and Limiting device that shall automatically arrest the driving effort when:

The Hook or Load attachment point of the Power-Driven lifting machine reaches its highest safe position; and in the case of a Winch Operated lifting machine with a lifting capacity of 5000kg or more; the load is greater than the rated mass load of such machine.

Bulk Mixing Plant

Regulation 20 provides:

Principal Contractor must ensure that the operations of a bulk mixing plants are operated and supervised by a competent person who has been appointed in writing and is

- (a) Aware of all the dangers involved in the operation thereof; and
- (b) Conversant with the precautionary measures to be taken in the interest of health and safety.

No person supervising or operating a bulk mixing plant may authorise any other person to operate the plant, unless that person is competent to operate a bulk mixing plant.

Principal Contractor must ensure that the placement and erection of a bulk mixing plant complies with the requirements set out by the manufacturer and that such plant is erected as designed.

Structures

In terms of regulation 11 Principal Contractor must comply with regulation –

He or she prevent uncontrolled collapse of any new/existing structure

Ensure structures are not overloaded to the extent that it becomes unsafe

Contractor to ensure all drawing are kept on site and available to interested parties

Owners of structures to ensure inspections are conducted by competent persons at least once every 6 months for the first 2 years and thereafter annually.

Owner to retain records to ensure maintenance of a structure and ensure records are kept

Scaffolding

Principal Contractor compliance with regulation 16(1), 16(2) and usage complies with regulation 44 of the Act. Principal Contractor must appoint a competent person in writing to supervise all scaffolding works, erection, team leaders and inspectors are competent.

A scaffold is a temporary structure for the purpose of creating a work platform, on which workers can carry out their work at varying heights, whether on buildings under construction, or during maintenance of buildings.

The most serious risks associated with scaffolds are firstly that the structure itself may collapse, leading to damage and injuries. Secondly, the items on the scaffold may fall and be damaged or cause damage to items on a lower level or injure or kill people. Thirdly, people may fall from the scaffold and the results are usually serious or fatal.

Personal and other Protective Equipment

In terms of Section 8 of the OHS Act, the duty of the employer is to take steps to eliminate or mitigate (hierarchy of control measures) any hazard or potential hazard to the safety or health of employees before resorting to PPE.

Principal Contractor employees and his sub-contractor employees at the construction site, including visitors, shall use the following SANS or the relevant internationally recognised authority approved risk-based PPE at all times, as a minimum:

- Head protection (Hard hat).
- Steel toe capped safety boots.
- Eye protection.
- Long sleeved and long pants protective clothing.
- High visibility vests.

Refer to General Safety Regulation 2 of the OHS Act However, if there are particular activities/areas/risk assessments that require a specific type of PPE, then that specific PPE requirement must be adhered to (e.g.: for dusty environments – eye goggles; for welding – welding helmet; etc.).

Principal Contractor must provide a detailed program on the issuing, maintenance and replacement of PPE for all his employees and subcontractors on site. Principal Contractor required to keep an updated register of all PPE issued to staff, including that of his sub-contractors

The principal contractor is required continuously to identify the hazards in the workplace and deal with them. He must either remove them or, where impracticable take steps to protect workers and make it possible for them to work safely and without risk to health under the hazardous conditions.

Personal protective equipment should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of personal protective equipment is considered.

Where it is not possible to create an absolutely safe and healthy workplace the principal contractor is required to inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

Suspended Platforms

A contractor must appoint a competent person in writing who must ensure that all suspended platforms work operations are carried out under his or her supervision and that all suspended platform erectors, operators and inspectors are competent to carry out their work. Principal Contractor must adhere to the requirements by regulation 17.

No contractor may use or permit the use of a suspended platform, unless -

- (a) the design, stability and construction thereof comply with the safety standards incorporated for this purpose into these Regulations under section 44 of the Act;
- (b) he or she is in possession of a certificate of system design issued by a professional engineer, certificated engineer or a professional technologist for the use of the suspended platform system; and

- (c) he or she is, before the commencement of the work, in possession of an operational compliance plan developed by a competent person based on the certificate of system design contemplated in subparagraph (b) and applicable to the environment in which the system is being used, which operational compliance plan must include proof.

Explosive Actuated Fastening Devices

No contractor may use or permit any person to use an explosive actuated fastening device unless:

- The user is provided with and uses suitable protective equipment
- User is trained in the operation, maintenance and use of such a device
- Firing mechanism designed to ensure no accidental firing

Blasting Operations

No blasting shall be done by Principal Contractor or subcontractors without the approval and permission of Lepelle Northern Water Gatsheni Sizwe (Pty)Ltd. The Contractor shall apply in writing to Lepelle Northern Water for permission to blast. All contact with the Inspector of Labour shall be done through the appropriate channels.

Principal Contractor must furnish the following information to Lepelle Northern Water and Gatsheni Sizwe (Pty)Ltd before blasting takes place:

- The blaster must hold a surface-blasting permit for blasting.
- The name of the blaster.
- The number of his blasting permit.
- The registration number of the explosive vehicle.
- The number of the continuous transport permit held.
- The blasting method statement in detail.

Hazard Identification Risk Assessment. The Occupational Health and Safety Act (Act no. 85 of 1993) and Mine Guidelines are to be strictly adhered to at all times. NB: Insofar as those Regulations shall apply in all cases, irrespective of the depth of the hole to be blasted. The Site Manager of Principal Contractor is to be advised each morning as to the blasting program for the day.

Electrical installations and machinery on construction sites

Principal Contractor must, in addition to compliance with the Electrical Installation Regulations, 2009, and the Electrical Machinery Regulations, 1988, promulgated by Government Notice No. R. 1593 of 12 August 1988, ensure that:

- Before construction commences and during the progress thereof, adequate steps are taken to ascertain the presence of and guard against danger to workers from any electrical cable or apparatus which is under, over or on the site;
- All parts of electrical installations and machinery are of adequate strength to withstand the working conditions on construction sites;

Electrical and mechanical lockout

An electrical and mechanical (as applicable) lockout procedure must be developed by the principal contractor and submitted to Lepelle Northern Water or Gatsheni Sizwe (Pty)Ltd for approval before construction commences. All contractors on site must adhere to this lockout procedure.

Fuel Storage

No petrol or fuel oil shall be stored in bulk on the surface in quantities in excess of two thousand liters in any tank above or below ground level except with the prior written approval of the Chief Inspector. No petrol shall be stored in drums in excess of a total of two hundred liters in any building or other place except with the prior written approval of the Department of Labour Chief Inspector. No fuel oil shall at any time be stored underground unless it is stored in a suitable container or tank, which does not leak.

Every storage tank provided at any filling station on the surface for the purpose of containing petrol or fuel oil shall be suitably constructed to an acceptable standard that would ensure the safe storage thereof. Suitable means for firefighting shall be installed at a safe location for the extinguishing of fire in the event of an incident. Fire equipment supply shall be appropriate to the quantity being stored.

All storage facilities shall be bunded 110% of the quantity contained and bunded areas will be supplied with a drain facility to enable the bunded area to be drained in a receptacle for disposal in the event of a spill or accumulation of water.

Housekeeping and general safeguarding on construction sites

Principal Contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, promulgated by Government Notice No. R. 2281 of 16 October 1987, ensure that suitable housekeeping is continuously implemented on each construction site, including:

- The proper storage of materials and equipment;
- The removal of scrap, waste and debris at appropriate intervals;
- Ensuring that materials required for use, are not placed on the site so as to obstruct means of access to and egress from workplaces and passageways
- Ensuring that materials which are no longer required for use, do not accumulate on and are removed from the site at appropriate intervals;
- Ensuring that waste and debris are not disposed of from a high place with a chute, unless the chute complies with the requirements set out in regulation 14(6);
- Ensuring that construction sites in built-up areas adjacent to a public way are suitably and sufficiently fenced off and provided with controlled access points to prevent the entry of unauthorised persons;
- Ensuring that a catch platform or net is erected above an entrance or passageway or above a place where persons work or pass under, or fencing off the danger area if work is being performed above such entrance, passageway, or place so as to ensure that all persons are kept safe in the case of danger or possibility of persons being struck by falling objects.

Stacking and storage on construction sites

Principal Contractor must, in addition to compliance with the provisions for the stacking of articles in the General Safety Regulations, 2014, regulation 28 ensure that:

A competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site;

- Adequate storage areas are provided;
- There are demarcated storage areas; and
- Storage areas are kept neat and under control.

Fire precautions on construction sites

The principal contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, ensure that:

- All appropriate measures are taken to avoid the risk of fire;
- Sufficient and suitable storage is provided for flammable liquids, solids and gases;
- Smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials;
- In confined spaces and other places in which flammable gases, vapor's or dust can cause danger –
- Only suitably protected electrical installations and equipment, including portable lights, are used;
- There are no flames or similar means of ignition; There are conspicuous notices prohibiting smoking;
- Oily rags, waste and other substances liable to ignite are without delay removed to a safe place; and
- Adequate ventilation is provided;
- Combustible materials do not accumulate on the construction site;
- Welding, flame cutting and other hot work are done only after appropriate precautions have been taken to reduce the risk of fire;

Excavations

Principal Contractor must ensure compliance regulation 13 amongst other must appoint competent person for supervision of excavation works. Principal Contractor must provide for Excavation and Back Filling Plan.

Principal Contractor who performs excavation work must take reasonable and sufficient steps in order to prevent, as far as is reasonably practicable, any person from being buried or trapped by a fall or dislodgement of material in an excavation. May not require or permit any person to work in an excavation, which has not been adequately shored or braced: Provided that shoring and bracing may not be necessary where.

Appropriate signage shall be affixed to the barricade indicating the risk associated (i.e. deep excavation, lifting operations etc.) and the responsible Supervisor and contact details shall be displayed.

The process of excavation and back filling must be carried out as a sequential process following

one another as quickly as possible. Excavations must only remain open for a minimum period of time and during this time they must be clearly demarcated. If excavations place the public at risk these sites must be fenced. The residents directly affected by open trenches must be notified of the dangers. This will be done during the site-specific phase.

21. HEALTH AND SAFETY AWARENESS PROGRAMME

The awareness program must be provided by Principal Contractor for community awareness, Schools, Clinic, local Vendors etc., must be in place to create an occupational health and safety culture within employees. The following are some of the methods that may be used:

- Toolbox talks;
- Posters;
- Videos;
- Competitions;
- Suggestion schemes;
- Participative employee activities such as “occupational health and safety circles”.

22. MINIMUM REQUIREMENTS OF THE SHE FILE

As required by the Construction Regulations (2014), Principal Contractor and other Contractors will each keep an SHE File on site containing the following minimum documentation:

Approval letter by Lepelle Northern Water on contents of Health and Safety File / SHE Plan;

Notification of construction work to the relevant Department of Labour (stamped on each page / no faxed copies);

Scope of work to be performed;

OH&S / SHE Policy and other Policies;

Updated copy of the Occupational Health and Safety Act (Act no. 85 of 1993) and its Regulations.

Updated copy of the Compensation for Occupational Injuries and Diseases Act (Act no. 130 of 1993) and its Regulations;

Proof of registration and good standing with the Compensation Commissioner or another licensed Insurer;

SHE plan agreed with Lepelle Northern Water including the underpinning risk assessment(s);

A list of contractors (sub-contractors) including copies of the agreements between the parties and the type of work being done by each contractor;

- Notice of new projects;
- Designs and/or drawings;
- Copies of occupational health and safety committee meetings and other relevant minutes;
- Copies of written designations and appointments of competencies;
- Management structure (inclusive of OH&S responsibility & meeting structure);
- Induction training and site, SHE rules;

- Occupational health and safety training;
- Arrangements with contractors and/or mandatories;
- Description of security measures;
- Occupational health and safety rules and procedures;

The following registers:

- Accident and/or incident register;
- Occupational health and safety representative's inspection register;
- Construction vehicles and mobile plan inspections;
- Daily inspections of construction vehicles, plant and other equipment by the operator, driver and/or user;
- Daily inspections of excavations by competent person;
- Daily inspections of demolition work by competent person;
- Record of entry to confined space;
- Record of training;
- Record of toolbox talks;
- Designer's inspections and structures record;
- Inspection and maintenance of explosive powered tools;
- Inspection of electrical installations (including inspection of portable electrical tools, electrical equipment and other electrical appliances);
- Fall protection inspections;
- First-aid box content;
- Record of first-aid treatment;
- Fire equipment inspection and maintenance;
- Record of hazardous chemical substances kept and used on site;
- Ladder inspection;
- Machine safety inspections (including machine guards, lock-outs etcetera);
- Inspection registers and logbooks for lifting machines and -tackle (including daily inspections by drivers/operators);
- Inspection of temporary work
- Inspection of scaffolding;
- Inspection of excavation
- Inspection of demolition work
- Inspection of tunneling
- Inspection of stacking and storage;
- Inspections of structures;
- Inspection of use and temporary storage of flammable liquids on construction sites
- Inspection of water environments
- Inspection of housekeeping and general safeguarding on construction site

- Inspection of construction employees' facilities
- Inspection of suspended platforms
- Inspection of rope access work
- Inspection of material hoists
- Inspection of bulk mixing plant
- Inspection of explosive actuated fastening device
- Inspection of cranes and Load Test Certificates
- Inspection of construction vehicles and mobile plant Inspections of vessels under pressure;
- Inspection of electrical installations and machinery on construction sites; and
- Records of issuing of Personal Protective Equipment;
- Lepelle Northern Water Master Way Leaves

Monthly reporting and recording of statistics;

Keeping of any other record in terms of applicable legislation falling within the scope of SHE Legislation applicable to the project and the Principal Contractor/ Contractor's activities and organisation.

Emergency preparedness and response program;

Investigation and reporting of incidents and/or accidents (internal to Client and Department of Labour / Compensation Commissioner

All other applicable records. Principal Contractor duties are to ensure compliance with the Construction Regulation (2014), which are to:

Provide a suitably documented health and safety plan based on the health and safety specification

- Keep a health and safety file on site, which must include all documentation required in terms of the Act and
- Regulations, and which are made available on request to an inspector, the client, the client's agent or a Contractor
- Ensure appointed contractor complies with the Act
- Perform duties of client with regard to contractors
- Appoint contractors in writing
- Ensure a contractor's health and safety plan is implemented and maintained
- Ensure that potential contractors submitting tenders have made sufficient provision for health and safety
- Ensure Principal Contractor is satisfied that contractor that he/she intends to appoint, is competent and has resources to perform work safely

- Prior to work commencing, every contractor needs to be registered and in good standing with the compensation fund or with a licensed compensation insurer - COID Act, 1993
- Audit contractor monthly
- Stop any contractor from executing work which is not in accordance with health and safety plan for the site or which poses a threat to health and safety of persons Where changes are made to the design and construction, make available sufficient health and safety information and resources
- After discussions and negotiations with Principal Contractor on the contents of the health and safety plan, it must be sent for final approval
- Ensure copies of all health and safety plans are available on request to an employee, an inspector, a contractor, the client or the client's agent
- Hand over the consolidated health and safety file to the client on completion of the construction work (include drawings, designs, materials used, etc.)
- Provide updated list and agreements/contracts of all contractors on-site to the client
- Ensure all employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3
- Principal Contractor must ensure cooperation between all appointed contractors.
- Principal Contractor allow or permit any employee or person to enter any site, unless they have undergone a health and safety induction training

Principal Contractor must ensure all visitors to a construction site have personal protective equipment. The regulations require that the duties extend through to all levels of responsibility to sub - contractors. For this reason, it is advised that contractors require sub-contractors to be up front on their intent to further sub- contract any aspects of their work. Lepelle Northern Water will conduct an inspection and evaluation of the principal contractor's SHE File on a monthly basis.

Principal Contractor is required to submit the SHE File after receiving letter of appointment from Lepelle Northern Water. Lepelle Northern Water will allocate a day to evaluate the file and to give feedback on the evaluation report of the file to the contractor.

The approval letter from Lepelle Northern Water must be kept in the SHE File and any letter issued concerning the evaluation of the file.

HEALTH AND SAFETY SPECIFICATION FOR:
OLIFANTSPOORT AND OLIFANTSPOORT WATER SUPPLY SCHEMES:
REHABILITATION OF
MEGORING AND THAKGALANG RIVER CROSSINGS

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1. PROJECT AND SCOPE OF WORK DETAILS

1.1 APPOINTMENT OF HEALTH AND SAFETY AGENT

Gatsheni Sizwe (Pty)Ltd has been appointed by Sigodi Marah Martin Management on behalf of Lepelle Northern Water (LNW) Rehabilitation of the Megoring and Thakgalang River Crossings to perform the duties of Health and Safety Manager or Agent.

In terms of Construction Regulations, 2014:

Regulation 5(1), 5(5), 5(6) and 5(7)

Where a construction work permit is required as contemplated 3(1), the client must, without derogating from his or her health and safety responsibilities or liabilities, appoint a competent person in writing as an agent to act as his or her representative

5 (1) The Client must -

- a) Prepare a baseline risk assessment for an intended construction work project;
- b) Prepare a suitable, sufficiently documented and coherent site-specific health and safety specification for the intended construction work based on the baseline risk assessment contemplated in paragraph (a):

Gatsheni Sizwe (Pty) Ltd on behalf of Lepelle Northern Water has therefore prepared the following specification below, must be provided and adhered to by Principal Contractor by means of a Health and Safety File, Plan and Health and Safety Compliance on the following project: Lepelle Northern Water; Rehabilitation of The Megoring and Thakgalang River Crossings.

The objective of this specification is to ensure that Principal Contractor entering into a contract with Lepelle Northern Water achieves and maintains an acceptable level of occupational health, safety and environmental performance and compliance.

NOTE PRINCIPAL CONTRACTOR AND ITS SUB-CONTRACTORS

The SHE specification provided by Gatsheni Sizwe (Pty) Ltd on behalf of Lepelle Northern Water is the minimum requirement. Principal Contractor must develop an HSE File and Plan that meets all the requirements and all relevant and applicable legislation. Gatsheni Sizwe (Pty) Ltd and Lepelle Northern Water in No way assumes Principal Contractor Legal responsibilities and liability. Principal Contractor is accountable for the quality, execution of the Health, Safety and Environmental program and management for its employees, sub-contractors and sub-contractors' employees. The SHE specification provides the minimum requirements and shall not be construed as exhaustive and all encompassing. Principal Contractor must include a copy of the following documents:

- a) Construction Regulation, 2014
- b) OHS Act 85 of 1993
- c) Appointment Letter from Lepelle Northern Water
- d) Form of a Guarantee

1.2 PROJECT TITLE AS PER TENDER DOCUMENT:

Lepelle Northern Water: Olifantspoort and Ebenezer Water Supply Schemes: Rehabilitation of The Megoring and Thakgalang River Crossings

1.3 PROJECT DESCRIPTION/DETAILED SCOPE OF WORK

The work to be performed under this contract comprises of the following:

The project forms part of the Upgrade of Olifantspoort and Ebenezer Water Schemes as defined and approved in terms of the Project Charter for the Implementation of Phase 1.

The scope of work involves the design and preparation of tender documentation to rehabilitate gravity mains, fed from the Rustfontein reservoir complex, at two river crossings. The sections of the pipelines were exposed due to severe soil erosion and face imminent danger of collapse.

The implementation of this project should be regarded as the matter of the highest priority due to precarious condition of the infrastructure and the strategic importance of the Ebenezer scheme as one of the primary bulk water supplies to Polokwane.

The existing 600Ø LNW gravity main run parallel to the 600Ø raw water gravity main (owned and operated by PLM) from Dam Naude Dam to PLM WTW.

A. Megoring River Crossing

The two 600Ø LNW gravity pipelines run parallel to the PLM raw water main, with sections of LNW pipeline dangerously exposed over a gully. Although, the PLM pipeline seems not to be in an imminent danger of collapse the construction activities to rehabilitate LNW pipelines may compromise the PLM pipeline.

B. Thakgalang River Crossing

A section of LNW 600Ø between chambers GA95 and GA96 crossing the Thakgalang River and the PLM raw water pipeline are exposed due to river bed erosion.

2. ROLES AND RESPONSIBILITIES

Lepelle Northern Water Project Manager: Gundo Motsoare

Project Manager on behalf of Lepelle Northern Water He/she is responsible for managing the contract with the Consulting Engineers, Health and Safety Consultants and Principal Contractor and ensure overall construction works are completed and Compliance with relevant legislation: General Conditions of Contract for Construction Works, 2015 and OHS Act 85 of 1993 and Construction Regulations 2014. In regard regulation 5 Duties of the Client and Particulars of Contract including but not limited to the following:

The contractor must comply with the provisions and contractual arrangements of the Occupational Health and Safety Act (OHSA) as well as the Environmental Management Act (NEMA): Waste Management.

All workers of any project undertaken as part of this bid must undergo a medical fitness test by an Occupational Health and Safety Practitioner who is registered with the South African Nursing Council (SANC). The medical test certificates must be presented by the Principal Contractor to Lepelle Northern Water.

Penalties of R15 000 per day are applicable on this contract.

Lepelle Northern Water Health and Safety Manager:

Health and Safety Manager at Lepelle Northern Water responsible for implementation of Health and safety in accordance with OHS Act 85 of 1993 and Construction Regulations 2014 on construction site on behalf of LEPELLE NORTHERN WATER

Consulting Engineers: Sigodi Marah Martin Management

Sigodi Marah Martin Management appointed by LEPELLE NORTHERN WATER for overall implementation and cost management of the Construction Site on behalf of LEPELLE

NORTHERN WATER in accordance with General Conditions of Contract for Construction Works, 2015, OHS Act 85 of 1993, Construction Regulations 2014 and COLTO Standard Specifications for Road and Bridge Works for State Authorities 1998. The principal contractor, which is Principal Contractor, executes the construction works as per the tender and relevant legislation. Including duties provided in regulation 6 of the Construction Regulations, 2014

Health and Safety Consultants: Gatsheni Sizwe (Pty) Ltd

Gatsheni Sizwe(Pty)Ltd has been appointed by Sigodi Marah Martin Management on behalf of Lepelle Northern Water : Olifantspoort and Ebenezer Water Supply Schemes: the Megoring and Thakgalang River Crossings to perform the duties of Health and Safety Manager or Agent to ensure that Principal Contractor adheres

to all Health and Safety standards , legislation required and must be complied with as per relevant and applicable legislation in terms Health and Safety *Inter Alia* OHS Act 85 of 1993 , National Environmental Management Act 1998 (Act 107 of 1998) and Construction Regulations 2014

Principal Contractor: Principal Contractor

Principal Contractor is the appointment principal contractor by LEPELLE NORTHERN WATER to execute the civil works as per tender and the contractor to which compliance with the Health and Safety legislation on site will be required, in executing civil works at the Lepelle Northern Water; the Megoring and Thakgalang River Crossings.

Principal Contractor carries primarily accountability and responsibility for ensuring full compliance to the provision of the OHS Act as contemplated by Section 37(2) written agreements and Construction Regulation (7). The section 37(2) of the OHS Act agreement must be signed by Lepelle Northern Water and Principal Contractor be part of the Health and Safety File

3. COMPLIANCE

Gatsheni Sizwe (Pty) Ltd on behalf of Lepelle Northern Water requires all of its Contractors to comply with legislation as part of the contract. All expenses to the Contractor, which result from compliance with this legislation as well as special requirements specific to the site, will be for the Contractors account.

No claim or standing time will be accepted as a result of any costs or delays being incurred due to Principal Contractor their sub-contractors not complying with legislation, this SHE specification or their SHE Plan approved by the Lepelle Northern Water and Gatsheni Sizwe (Pty) Ltd

Should Principal Contractor appoint a sub-contractor, the Principal Contractor would then have the same role and responsibility in relation to the sub-contractors on the Contract No: XX Lepelle Northern Water; the Megoring and Thakgalang River Crossings.

The requirements within this specification should not be considered to be exhaustive and Gatsheni Sizwe (Pty) Ltd on behalf of Lepelle Northern Water reserves the right to add, delete or modify conditions where it is considered to be appropriate.

The following applicable legislation has been identified which may impact the Project. The list is not an exhaustive:

- Construction Regulations, 2014
- The Constitution of the Republic of South Africa (particularly Section 24 of the Bill of Rights).
- Occupational Health and Safety Act 1993 (Act 85 of 1993) and its Regulations.
- National Environmental Management Act 1998 (Act 107 of 1998).
- National Road Traffic Act (93 of 1996) National Environmental Management: Waste Act 59 of 2008

- National Environmental Management Act 107 of 1998 and Amendments
- Air Quality Act 39 of 2004
- Hazardous Substances Act 15 of 1973
- National Water Act 36 of 1998
- Conservation of Agricultural Resources Act 1983 (Act 43 of 1983).
- Mine Health and Safety Act 29 of 1996
- Compensation for Occupational Injuries and Diseases Act No 130 of 1993 (COIDA)
- Applicable South African National Standards (SANS).
- ISO 9001:2008 -Quality Management Systems requirements
- ISO 14001:2004-Environment Management Systems requirements
- OHSAS 18001:2007 -Occupational Health and Safety Management Systems Requirements

a) COVID -19

Compliance with the Occupational Health and Safety Act No.85 of 1993 and the Disaster Management Act, of 2002, and the subsequent regulations. This specification is compiled in line with the COVID-19 Baseline Risk Assessment.

Principal Contractor must use it as a reference document when developing their COVID-19 response plans.

No	Activity	Responsibility	Target date
1	Procurement of thermometers, masks, sanitizers and hand soap and other COVID 19 supplies	Principal Contractor	
2	Review risk assessments to include risks associated with COVID 19	Principal Contractor	
3	Development of COVID 19 standard operating procedures & review SHE plan (in line with these guidelines)	Principal Contractor	
4	Verification of compliance	Principal Contractor	
5	Approval by OHS to resume construction sites	Principal Contractor	
6	Resumption of construction activities	Principal Contractor	
7	Re-induction of all contractors	Principal Contractor	
8	Toolbox talks	Principal Contractor	
9	Regular cleaning and disinfection of surfaces	Principal Contractor	

4. LETTER OF GOOD STANDING –(COIDA)

The Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (COIDA) provides for compensation for disablement caused by occupational injuries or diseases sustained or contracted by employees in the course of their employment, or for death resulting from such injuries or diseases.

Principal Contractor must have their Letter of Good Standing in the Health and Safety file including the Section 6 (A)- Annexure 13 W.Cl.2 and other related forms

5. NOTIFICATION OF CONSTRUCTION WORK

In terms of Construction Regulations, 2014:

4(1) A contractor who intends to carry out any construction work other than work contemplated in regulation 3(1), must at least 7 days before that work is to be carried out notify the provincial director in writing in a form similar to annexure 2 if intended construction work will –

- a) Include excavation work;
- b) Include working at a height where there is risk of falling;
- c) Include the demolition of a structure
- d) Include the use of explosives to perform construction

Principal Contractor must therefore provide Notification of Construction in terms of Construction Regulations, 2014. Therefore, **No** construction works shall commence before notification of construction work has been submitted at the relevant Department of Labour by the Principal Contractor. The copy of the notification stamped on both pages must be provided in the Safety File.

6. CONSTRUCTION WORK PERMIT

Regulation 5(1), 5(5) and 5(6)

Where a construction work permit is required as contemplated 3(1), the client must, without derogating from his or her health and safety responsibilities or liabilities, appoint a competent person in writing as an agent to act as his or her representative

Construction Regulation 3 is **NOT** applicable because of the temporary exemption provided by 42(1) of the Occupational Health and Safety Act, 1993 Construction Regulations, 2014

3 (1) A client who intends to have construction work carried out, must at least 30 days before that work is to be carried out apply to the provincial director in writing for a construction work permit to perform construction work if the intended construction work will –

- a) Exceed 365 days will involve more than 3600-person days of construction work; or
- b) The tender value limit is grade 6,7,8 or 9 of the Construction Industry Development Board (CIDB) grading

Therefore, in terms of Lepelle Northern Water; the Megoring and Thakgalang River Crossings the client will apply for permit due to the requirements of the regulation.

7. NON-CONFORMANCES / WORK STOPPAGE

Gatsheni Sizwe (Pty) Ltd reserves the right to stop work and issue a non- conformance report whenever safety, health or environmental violations are observed for both Principal Contractor and their sub-contractors. Expenses incurred as a result of such work stoppage and standing time shall be for the Principal Contractor account. Any non-conformances /findings/observations found in these audits/inspections on sub-contractors shall be raised and discussed with the relevant Principal Contractor.

The conditions that lead to work stoppages are based on but not all encompassing:

Management of change – this is when there are changes to the work environment (e.g.: climatic changes) and/construction work (e.g.: modifications to the design), in any phase of the construction project, and/or amendments with regulations and/or legislative amendments; unsafe acts/behaviors;

Unsafe working conditions: Principal Contractor and subcontractors shall ensure that no other work is being performed during this time. Should the estimated time from the outset to make the area safe where life threatening/imminent danger situations exist, then the area will be barricaded and a sign placed with the wording “Unsafe Area – Authorized Access Only”.

Principal Contractor shall address the unsafe working condition and then revise the relevant sections in the SHE Plan to accommodate the changes.

8. HSE POLICIES

Principal Contractor and sub-contractor shall each have a SHE Policy authorized by OHS Act Section 16(1) appointee that clearly states overall, SHE objectives and commitment to improving Safety, Health, Environment and Quality performance and Compliance. Including but not limited to:

- Disciplinary policy for employees transgressing occupational health, safety and environmental requirements
- Drug, alcohol & substance abuse policy
- Smoking policy
- HIV/AIDS policy

9. SHE PLAN

a) SHE Plan

In terms of Construction regulation 7(1): Principal Contractor and any sub-contractors appointed must provide a Health and Safety Plan which must constantly be reviewed as per regulation:

- i) Provide and demonstrate to the client a suitable, sufficiently documented and coherent site-specific health and safety plan, based on the client's documented health and safety specifications contemplated in regulation 5(1)(b), which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the principal contractor as work progresses;
- ii) Open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, which must be available on request to an inspector, the client, the client's agent or a contractor

Including but not limited to the following documentation:

- Duties and safety responsibilities of all appointed persons on the project.
- Selection, placement and training procedures, including induction and on- going training in 'Basic Safe Work' and Occupational Health and Safety training for newly hired or promoted supervisors.
- Baseline risk assessments, review & monitoring plan & safe work procedures.
- Occupational health and safety goals for the project and arrangements for monitoring and reviewing occupational health and safety performance.
- Occupational Health and Safety communications and meetings, including daily safe task instructions and project safety meetings.
- Assessment of sub-contractors, including requirements for safety plans
- Nomination of personnel to carry out safety inspections. The task may be shared with other duties and provided within the resources of individual gangs and may be rotated

- Rules and regulations including safety procedures the Contractor has in place for recurring work activities.
- Personal protective equipment rules.
- Control of dangerous and hazardous substances.
- Hazard identification and risk control, such as Risk assessments, Daily Safe Task Instructions and communication.
- Audits to ensure compliance with safety plans.
- Daily site safety inspections and audits.
- Inspection of plant, tools and equipment prior to introduction to site and regularly thereafter.
- Accident incident reporting, recording, investigation and analysis, which ensure that corrective action, are taken and this action is communicated to report initiators.
- First aid arrangements.
- Evacuation and emergency planning.
- Substance abuse program
- Record keeping
- Personal Protective equipment arrangements.
- Worker's welfare facilities.
- Induction and toolbox talk's arrangements.
- Training arrangements.

b) Fall Protection Plan

Principal Contractor must include a Fall Protection Plan as contemplated in regulation 10. Therefore, must appoint a competent person responsible for the preparation of the plan include the requirements in regulation 10(2), continuously adhere and implement the fall protection plan as per regulation 10(3), 10(4) and 10(5).

c) Traffic Management Plan

The scope - the safe movement of vehicular and pedestrian traffic, protection of workers from passing traffic, provision for access to properties located within the limits of Network Road .The design, construction, maintenance and implementing of any necessary temporary roadways and detours, the provision of traffic controllers, the installation of temporary signs, road markings, lighting , safety , Jersey , temporary speed humps and solid barriers as per Road Traffic Act, 1989 (Act No. 29 of 1989),Road Traffic Sign Applications .

Principal Contractor must provide a comprehensive and detailed a Traffic Management Plan and must include Traffic Control Plans, Emergency Readiness Plan, Objectives of the Traffic Management Plan, Traffic Management Officer, Communications with community, stakeholders. The traffic Management must be in accordance with the South African Road legislation and Signs Manual as modified to suit site conditions. Application of the Act shall apply throughout the Republic: Provided that any provision thereof shall only apply to those areas of the Republic in respect of which the Road Traffic Act, 1989 (Act No. 29 of 1989), did not apply before its repeal by section 93, as from a date fixed by the Minister by notice in the *Gazette*.

10. APPOINTMENTS AND COMPETENCIES

Principal Contractor must submit in writing the appointments and competences of all competent person appointed, which form part of the SHE Plan in terms of Construction Regulation 8. An organogram must also submit including all legislative appointments, defined responsibility structure, OHS meetings and period of appointment. All appointees and appointers must sign the legislative appointments.

Principal Contractor Chief Executive Officer, in terms of Section 16(1) of the Occupational Health and Safety Act (Act no 85 of 1993), is to ensure that the Employer (as defined in the Occupational Health and Safety Act (Act no. 85 of 1993) – hence the Contractor) complies with the Occupational Health and Safety Act (Act no 85 of 1993) and Construction Regulations (2014) as well as all other applicable legislative requirements.

a) Construction Managers

Principal Contractor, appointed in terms of Construction Regulations is responsible for implementing and maintaining the SHE Plan. Regulation 8 (1) A principal contractor must in writing appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed.

No construction manager appointed under sub regulation 8(1) may manage any construction work on or in any construction site other than the site in respect of which he or she has been appointed.

Regulation 8(7): Principal Contractor Construction managers, in writing must appoint construction supervisors responsible for activates on site and ensuring compliance with occupational health and safety regulations on site. Regulation 8(8) Principal Contractor considering and depending on the size of the project or construction site must appoint in writing one or more competent employees for different sections to assist the construction supervisor envisaged in sub regulation (7).

REGULATION	APPOINTMENT /COMPETENCIES / RESPONSIBILITY
Chief Executive Officer (OSH Act 16(1))	Chief Executive Officer -Principal Contractor
Contract Director / Manager (OSH Act 16 (2))	Contract Director / Manager- Principal Contractor
1. 5(1)(K)	Lepelle Norther Water appointment of Principal Contractor
2. 8(1)	Construction Manager - Principal Contractor: Managing Construction works and ensuring Health and Safety Compliance
3. 8(2)	Assistant Construction Manager and Traffic Management Officer - Principal Contractor: Assist the Construction Manager
4. 8(5)	Health and Safety Officer - Principal Contractor: Ensuring Health and Safety Compliance

REGULATION	APPOINTMENT /COMPETENCIES / RESPONSIBILITY
5. 8(7)	Construction Supervisor - Principal Contractor: Supervision of certain type of construction works
6. 7	Appointment and management of Sub-contractor - Principal Contractor
7. 9(1) Risk Assessor	Risk Assessor to conduct risk assessments - Principal Contractor
8. 10(1)(a)	Appointee for preparation of fall protection plan - Principal Contractor
9. General Safety Regulation 3	First Aider - Principal Contractor
10.12(1) Temporary works designer	Appointee for inspect and approve erected temporary works on site – Principal Contractor
11.12(2) Temporary works Supervisor	Appointee for Supervision of Temporary works on site - Principal Contractor
12. 12(3)(a) Temporary Works Erector	Erect temporary works on site - Principal Contractor
13. 12(3)(f) Temporary Works Inspector	Inspector of Temporary Works on site - Principal Contractor
14. 13(1)(a) Excavation Supervisor	Excavation Supervision - Principal Contractor
15. 13(2)(h) Excavation Inspector	Excavation Inspection - Principal Contractor
16.14(1) Supervisor demolition work	Demolition Supervision - Principal Contractor
17. 16(1) and 16 (2) Scaffold Supervisor, Erector, Inspector	Supervision, Inspection and Erection of Scaffolding - Principal Contractor
18. 14(11) Competent Person for Explosives	Legally certified competent explosives person Principal Contractor
19. 20(1) Batch Plant Supervisor	Supervision of Batch plant - Principal Contractor
20. 22(a) Crane Supervision	Certified Crane Supervisor Principal Contractor

REGULATION	APPOINTMENT /COMPETENCIES / RESPONSIBILITY
21. 23(1)(d) Construction Vehicle and Mobile Plants Operator	Certified Plant Operator and Vehicle - Principal Contractor
22.24(d) Electrical Machinery Inspector	Inspection of Electrical Machinery - Principal Contractor
23. 24(e) Temporary Electrical Installations Inspector and Controller	Control all temporary electrical installations - Principal Contractor
24.28(a) Stacking and Storage Supervisor	Supervision of Stacking and Storing - Principal Contractor
25.29(h) Fire Equipment Inspector	Inspection of Fire Equipment - Principal Contractor
26.29(i) Fire extinguisher Users	Operator of extinguisher - Principal Contractor
27. Hand Tool Inspector	Inspection of Hand tool inspector - Principal Contractor
28. 20(2)(g)(i) Person to control and do the issuing and collection of Cartridges and nails/studs	Certified competent control of explosive equipment - Principal Contractor
29.21(2)(b) Explosive actuated fastening device inspector	Inspection of explosive device fastening- Principal Contractor
30. 21(2)(g)(i) Explosive actuated fastening controller	Controller of explosive device fastening- Principal Contractor
31. Explosive Operator	Operator of explosive device- Principal Contractor
32. General Safety Regulation 13A	Ladder Inspector- Principal Contractor

b) Construction Health and Safety Officers/ Practitioners

Regulation 8(5) and 8(6) Principal Contractor must appoint a full time Health and Safety Officer in writing that is registered with approved statutory body. Therefore, the appointed Construction Safety Officer must be registered with the statutory body approved by Chief Inspector the South African Council for Project and Construction Management Professionals (SACPCMP) and have SAMTRAC or safety diploma and at least 4 years relevant construction safety experience.

c) Occupational Health and Safety Representatives

Section 17 and Section 18 of the OHS Act provides for appointment of the Health and Safety Representative and functions thereof. Every employer who has more than 20 employees in his employment at any workplace, shall designate in writing for a specified period health and Safety representative for such workplace. Principal Contractor must therefore appoint a Health and Safety Representative if Principal Contractor employs on site on than 20 employees including sub-contractors and their employees. Shall appoint one SHE representative for every 50 employees or part thereof.

d) Health and Safety Committee

In regards to section 19 and section 20 of the OHS Act 85 of 1993 Principal Contractor must establish an occupational health and safety committee consisting of all the designated occupational health and safety representatives together with a number of management representatives. The management representatives shall not exceed the number of occupational health and safety representatives on the committee. The members of the occupational health and safety committee must be appointed in writing. Representatives from Gatsheni Sizwe (Pty) Ltd will act as co- opted members to the Health and Safety Committee meetings as and when required. Principal Contractor is required to compile a schedule for the statutory occupational health and safety committees for the duration of the project and supply the proposed schedule in the SHE Plan.

11. TRAINING

Inductions and Training must be submitted with SHE Plan and SHE File with all the registers for specific training, which will be conducted. Training is to be carried out as required by the Occupational Health and Safety Act (Act no 85 of 1993) and the Construction Regulations (2014). All training courses required and attended are to be included in the principal contractor's SHE File. All members of Principal Contractor site management as well as all the persons appointed responsible for occupational health, safety and environmental management in terms of the Construction Regulations (2014) and other legislative requirements, will be required to attend a SHE System Induction training.

Construction Site induction carried out by the Principal Contractor

The aim of this section is to outline expectations in respective of the scope of the training, which Principal Contractor and Sub Contractor employees receive. The scope of the training includes but is not limited to the type of work being performed and the relevant procedures. Additional to the requirements, will be that Principal Contractor and sub-contractors would have the appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training, certificates and are under competent supervision. Records of all training and qualifications of all contractor employees must be kept. Principal Contractor shall maintain comprehensive records of all employees under his control (including all employees of the sub-contractor) attending induction training.

Acknowledgement of receiving and understanding the induction must be signed by all persons receiving the induction respectively and the Induction Register be kept in the Health and Safety File.

When there is an amendment to the Acts and/or to the regulations, SHE specification and SHE plan, all affected staff shall undergo the relevant re-training. For appointees that do not meet the minimum competencies as indicated above: full compliance to the above competencies would be expected. A training plan must be submitted on a monthly basis to reflect progress of meeting the minimum training requirements.

Medicals

Prior to induction all Principal Contractor and Sub-contractor employees must undergo a pre-employment medical examination and found fit for duty. A copy of the certificate of medical fitness must be presented for permanent record at the induction venue and kept at Health and Safety File and site offices for permanent record.

Job specific induction carried out by the Principal Contractor/Sub-Contractor Supervisor on the site

Principal Contractor shall ensure that all his employees and his contractors' employees working on the site are adequately trained in the type of work/tasks to be performed. The training shall extend to include relevant procedures, hazard identification and risk assessment. They shall have the appropriate qualifications, certificates and are under competent supervision. Copies of records of appropriate training and qualifications for all employees must be kept and maintained.

Principal Contractor shall ensure that all his employees, agents and contractors have undergone the Project safety induction program prior to commencing work on site.

Appropriate time must be set-aside for training (induction and other) for all employees.

All employees and visitors on site shall carry the proof of induction training. The relevant site Risk Control/SHE Training Officer shall keep a database of all records pertaining to induction and will inform contractors of pending expiry.

Principal Contractor shall ensure that all his employees and sub-contractor employees undergo general work induction with regard to the approved SHE plan, general hazards prevalent on the construction site, construction risk assessment, rules and regulations, and other related aspects. The induction should also include identification of sensitive features such as wetlands areas, red data species, graves, etc.

Principal Contractor will be required to ensure that before an employee commences work on the project that the supervisor in control with responsibility for the employee has informed the employee of his scope of authority, any hazards associated with the work to be performed as well as the control measures to be taken. This will include man- task specifications, the discussion of any standard task procedures or hazardous operational procedures to be performed by the employee. Principal Contractor is to ensure that the supervisor has satisfied himself that the employee understands the hazards associated with any work to be performed by conducting task/job observations.

Other Training

All Operators, Drivers and Users of construction vehicles, mobile plant and other equipment must be in possession of valid proof of training. All employees in jobs requiring training in terms of the Act and Regulations must be in possession of valid proof of training.

The principal contractor is required to have a promotion and awareness program in place to create an occupational health and safety culture within employees E.g.: Toolbox Talks, Videos, Health and Safety circles.

12. CONTRACTOR'S SITE FACILITIES AND ACCESS CONTROL TO THE CONSTRUCTION SITE

Principal Contractor must manage site facilities as per Environmental Regulations for workplaces, Facility Regulation, Security Personnel, General safety regulation as framed under the OHS Act.

Principal Contractor must establish site access rules and implement and maintain these

throughout the construction period. Access control must, amongst other, include the rule that non-employees will not be allowed on site unaccompanied.

Principal Contractor shall provide a guardhouse for a security working during the day and at night. The guardhouse should be in good condition and at-least meet minimum requirements as per environmental regulations for workplaces.

Temporary Facility

Ablution facilities, Site Offices and Amenities, lay down and Storage, Site Access, Temporary Site Services Principal Contractor employees are registered on the site access system and are issued with access certificates. Access certificates to be kept with the Contractor at all times within the site.

Principal Contractor and his sub-contractors shall adhere to the site traffic plan to ensure the safe movement of all construction related mobile plant. Principal Contractor shall adhere to the pedestrian and vehicle routings and Traffic Authority.

The project/site security arrangements are: Site Safeguarding: Nets, Canopies, Platforms, Fans, Barriers etc. to protect members of the public passing / entering the site

13. RISK MANAGEMENT AND ASSESSMENTS

Regulation 9(1) A contractor must, before the commencement of any construction work and during such construction work, have risk assessments performed by a competent person appointed in writing, which risk assessments form part of the health and safety plan to be applied on site

Principal Contractor must identify the construction site SHE risks and hazards before commencing any construction works on site as per regulation 9 and his/her subcontractors to identify hazardous and potentially hazardous work operations. Principal Contractor needs to demonstrate that the site hazards and the contractor's activity risks and the mitigating measure have been considered in his risk assessments.

The Occupational Health and Safety Act (Act no. 85 of 1993) specifically requires that employers shall provide and maintain working environments that are safe and without risk to health. The general awareness of hazards needs to be raised as work ethic to maintain a safe and risk-free environment on an on-going basis. This is achieved by continuous risk assessments, a form of risk assessment that takes place as an integral part of day-to-day management.

There must be method statements or written safe work procedures for all the Principal Contractor activities

Emerging risks and hazards must be managed during construction work. Activity based risk assessments must be conducted by an appointed and competent person of the Principal Contractor on a regular basis. Principal Contractor prior to daily work beginning on site shall conduct Preliminary hazard identification.

Site Specific Health and Safety Hazards

Principal Contractor Site-Specific list may not be totally comprehensive and it is the duty of Principal Contractor to ensure that all the hazards are identified, before and during the project, and the necessary activity-based risk assessments are carried out. These risk assessments shall form part of the SHE Plan. The site-specific health and safety hazards are on continuous during the duration of the project.

Hazardous and potentially hazardous work operations and Emerging Risks

Principal Contractor shall identify hazards and potentially hazardous work operations. For each work operation Identified, the Contractor shall supply Risk Assessment, which shall:

- a) Describe the operation to be performed in the sequence of the basic job steps.
- b) Identify and rank the hazard or potential hazard.
- c) A plan to review the risk assessments as the work progresses and changes are introduced;
- d) Describe how the hazard will be managed therefore a documented plan and Safe Working Procedures, and its relevance to the risk assessment, to mitigate, reduce or control the risks and hazards that have been identified.
- e) A plan to monitor the application of the Safe Working Procedures
- f) Signature of appointed competent person conducting risk assessment; and Signature of Principal Contractor management and employees involved in risk assessment.
- g) Review plan; Based on the risk assessments, the principal contractor must develop a set of site-specific occupational SHE rules that will be applied to regulate the health, safety and environmental aspects of the construction work.
- h) Identify the responsible person for each mitigation action.

The hazards and risk to which persons, plant, vehicles and facilities may be exposed during the construction should be identified and evaluated. The aspects and impacts resulting in environmental pollution or degradation should also be identified and evaluated. Measures to reduce or control these risks or hazards should be defined during this assessment.

Principal Contractor must ensure that all employees under his or her control are informed instructed and trained by a competent person regarding any hazard and the related work procedure and or control measure before any work commences, and thereafter at the times determined in the risk assessment monitoring and review plan of the relevant site.

During construction work, Principal Contractor, his sub-contractors or Lepelle Northern Water representative or agent may identify emerging hazards and risks. For each such newly identified hazard or risk, the Lepelle Northern Water representative or agent shall review the baseline site hazard identification and the relevant section(s) of the Baseline Risk Assessment during Audits. The hazard identification shall be submitted to the Principal Contractor who will review his own risk assessments and relevant sections of the SHE Plan, as well as those of the sub- contractors.

Principal Contractor representative or agent will prepare and submit to the Lepelle Northern Water representative or agent, both documents for approval.

Principal Contractor and his subcontractors shall not proceed with the work/operation in hazardous areas until the Client/Agent's representative has reviewed the Risk Assessment and has approved and signed the revised SHE plan and issued a valid permit to work.

Principal Contractor shall on a daily basis and for every task to be performed, conduct a pre-task risk assessment with all employees involved with the task(s). The pre-task risk assessment will form the basis of the daily pre-job brief/toolbox talks prior to the start of work. Proof of communication as well as confirmation that it was received and understood by all will be noted on a standard form, which will be kept at the job site during the job execution. The completed signed pre-task risk assessment form will be filed in the Principal Contractor **SHE** files.

The Contractor must ensure through his risk management process the hierarchy of controls stipulated as follows, are implemented:

- a) **Eliminate** - The complete elimination of the hazard.
- b) **Substitute** - Replacing the material or process with a less hazardous one.

- c) **Redesign** - Redesign the equipment or work process.
- d) **Separate** - Isolating the hazard by guarding or enclosing it.
- e) **Administrate** - Providing control such as training, procedures etc.
- f) **Personal Protective Equipment (PPE)** - Use of appropriate and properly fitted PPE where other controls are not practical. (PPE as the last resort)

14. **SAFE WORK PROCEDURES AND PRACTICES**

Principal Contractor is to provide an indication of the activities that require safe work procedures and practices to mitigate the identified risks. There must be written safe work procedures or method statements for all activities. Risk Assessments should refer to the safe work procedures.

- a) A safe working procedure should be written when
- b) Designing a new job or task;
- c) Changing a job or task;
- d) Introducing new equipment or substances; and
- e) Reviewing a procedure when problems have been identified, e.g., from near miss incidents or accident/incident investigation. The safe working procedure should identify:
- f) The supervisor for the task or job and the employees who will undertake the task
- g) The tasks that are to be undertaken that pose risks
- h) The equipment and substances that are used in these tasks
- i) The control measures that have been built into these tasks
- j) Any training or qualification needed to undertake the task
- k) The personal protective equipment to be worn;
- l) Actions to be undertaken to address safety issues that may arise while undertaking the task
- m) The methodology that will be used to ensure compliance with the method statement/procedure.
- n) Any other information deemed to be necessary by the Lepelle Northern Water Project team.
- o) Associated responsibilities and authorities
- p) Authorized staff positions to conduct the relevant activities contained in the Safe Work Procedure.

15. **EMERGENCY PREPAREDNESS AND RESPONSE**

Principal Contractor and his sub-contractors must develop a site-specific emergency response plan and contingency plan, appoint a competent person to act as emergency controller and/or coordinator.

Principal Contractor, together with his sub-contractors, must develop their own emergency response for both site and offices and submit this plan to LNW representative or agent for approval. Principal Contractor must ensure that his employees and his sub-contractor employees are trained on this plan. Principal Contractor must initiate his own emergency drills and must hold regular practice drills of contingency plans and emergency procedures to test them and familiarize employees with them, have written arrangements in place with his other contractors regarding the responsibility of the other contractors towards their own injured and/or ill employee.

Principal Contractor must provide third parties and other specialized sub-contractors with

training of emergency response plan and contingency plan, such training must be writing be part of SHE Plan.

General Safety Regulations promulgated in terms of the Occupational Health and Safety Act (Act no. 85 of 1993) provides for a qualified First Aider and First Aid Equipment regulation 7

16. ENVIRONMENTAL MANAGEMENT

Principal Contractor must comply with the National Environmental Management Act 107 of 1998 and Amendments, therefore must provide a comprehensive Environmental Management Plan

Spillage of Hazardous Chemical Substances

Principal Contractor must have register of Hazardous Chemical Substances and Material Safety Data Sheets should be kept on site. Herbicide usage

Principal Contractor must have an Herbicide register for usage to be compiled and maintained if such will be utilized on site. The application of herbicides to be in accordance with the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act No. 36 of 1947. Only approved and tested herbicides with a low environmental risk shall be used. Only registered pest control operators may apply herbicides on a commercial basis. All staff applying herbicides must be trained in the application of herbicides.

Fire hazard

Principal Contractor shall comply with regulation 29 in terms of Fire precautions on construction site, ensure that staff are educated in fire prevention and will be held responsible to avoid the risk of fire. No area is to be denuded of vegetation to create firebreaks, to prevent or make fires. No open fires are allowed on site. Principal Contractor must ensure that operations are in compliance with statutory requirements at all times.

Waste

Principal Contractor must compile and submitted waste management plan included the SHE File before commencement of construction works on site. Registers of hazardous and non-hazardous waste to be kept on-site.

Principal Contractor must include in the SHE File and a record of disposal and continuous updating of records. No waste, whether it be biodegradable or not, is to be left on site once work has ended. Domestic and hazardous waste generated will not be burned, buried, or disposed of on site or other Landowners' property but will be controlled and removed to a registered waste site on a regular basis (Daily/Weekly/Monthly) must be taken to the appropriate local government site. Principal Contractor and sub-contractor working on site must ensure that oil, fuel, and chemicals are confined to specific and secure areas throughout the construction period and appropriate signage. These materials must be stored in a barricade area with adequate containment for potential spills and leaks. Principal Contractor must ensure that sufficient waste bins / containers are made available for waste control.

Dust and Noise

Principal Contractor shall monitor dust and noise caused by mobile equipment, generators and other equipment during construction must have a Dust and Noise Management Plan. Factors such as wind can often affect the intensity to which these impacts are experienced. To ensure that noise does not constitute a disturbance during construction activities, all construction works shall occur between specific working hours. Dust suppression measures must be in place to reduce the dust caused by the movement of heavy vehicles.

Environmental Incidents

All environmental incidents such as pollution (air, water, land, noise, etc.), bird kills, animals killed, plants destroyed, public complaints etc. must be reported to Lepelle Northern Water or representative or agent within 24 hours of its occurrence. All environmental incidents occurring on site must be recorded; detailing how each incident was dealt with. Proof thereof must be kept in an incident register. Principal Contractor will be held liable for any infringement

of statutory requirements of the National Environmental Management Act of 1998 or any other relevant legislation.

Water

Principal Contractor must comply with regulation 26. Should observe and water restrictions on site. Must provide water for consumption for by employees during extreme weather conditions. Should any pollution of the watercourse occur, t Lepelle Northern Water or representative or agent the Department of Water Affairs (DWA) must be notified immediately via the ECO/Corporate Environmental Advisor. Bore hole water must be verified for human consumption fitness. All incidents related to water contamination to be reported within 24 hours. Chemical toilets may not be within close proximity of the drainage lines / ways.

Flora

All suitable and rare flora and seeds will be rescued and removed from the site. They must be suitably stored, for future use in rehabilitation. The felling and/or cutting of trees and clearing of bush will be minimized. Bush will only be cleared to provide essential access for construction purposes. The spread of alien vegetation must be minimized. Any incident of unauthorized removal of plant material, as well as accidental damage to priority plants, will be documented.

Fauna

No species of animal may be poached, snared, hunted, captured or willfully damaged or destroyed. Snakes and other reptiles that may be encountered on the construction site will not be killed unless the animal endangers the life of an employee. Principal Contractor will ensure that the work site is kept clean and free from rubbish, which could attract pests.

Soil pollution management

Topsoil will be temporarily stockpiled, separately from (clay) subsoil and rocky material, when areas are cleared. If mixed with clay sub-soil the usefulness of the topsoil for rehabilitation of the site will be lost.

Stockpiled topsoil will not be compacted but will be replaced as the final soil layer. No vehicles will be allowed access onto the stockpiles after they have been placed. Stockpiled soil will be protected by erosion- control berms if exposed for a period of greater than 14 days during the wet season. The need for such measures will be indicated in the site- specific report. Topsoil stripped from different sites will be stockpiled separately and clearly identified as such. Topsoil obtained from sites with different soil types will not be mixed. Topsoil stockpiles will not be contaminated with oil, diesel, petrol, waste or any other foreign matter, which may inhibit the later growth of vegetation and microorganisms in the soil.

Aesthetic and visual impact management

Damage to the natural environment must be minimized. Trees and tall woody shrubs will be protected from damage to provide a natural visual shield. Excavated material will not be placed on such plants and movement across them will not be allowed, as far as practical.

All above ground structures will be located in areas where the visual impact from roads, houses etc. is minimised. All above ground structures could be treated or painted to blend in with the natural environment. Cut and fill areas, river and stream crossings and other soil stabilization works will be constructed to blend in with the natural environment.

All finds of human remains will be reported to the nearest police station. Human remains from the graves of victims of conflict, or any burial ground or part thereof which contains such graves and any other graves that are deemed to be of cultural significance may not be destroyed, damaged, altered, exhumed or removed from their original positions without a permit from the South African Heritage and Resource Agency (SAHRA).

17. SHE AUDITS AND INSPECTIONS

Compliance with OHS ACT and Construction Regulations

In terms of Construction Regulations 2014, regulation 5(1)(n) to 5(1)(q) the client must take reasonable steps the client must ensure periodic health and safety audits and document verification are conducted at intervals mutually agreed upon between the principal contractor any contractor, but at least once every 30 days. Regulation 5(1)(q) stop any contractor from executing a construction activity which poses a threat to health and safety of persons

Contractor SHE Performance Evaluation

Gatsheni Sizwe (Pty) Ltd shall evaluate contractor SHE performance on an on-going basis against the requirements of OHS ACT and Construction Regulations. There will be monthly audits/inspections conducted by Gatsheni Sizwe (Pty) Ltd on Principal Contractor and/or sub-contractors. The contractor's site manager or his representative shall attend these audits. Find SHE Performance Evaluation attached.

18. INCIDENT MANAGEMENT (PRINCIPAL CONTRACTOR AND SUB-CONTRACTORS)

Reporting of Accidents and Incidents

Principal Contractor shall compile and implement procedure for Reporting and investigation of incidents – This document sets out the procedures to be followed when reporting, recording and investigating incidents that occur on a construction site.

Principal Contractor must report to Lepelle Northern Water or representative or agent within 24 Hours and to the Provincial Director of the Department of Labour within seven days from date of incident (Section 24 of the Occupational Health and Safety Act (Act no. 85 of 1993)

Principal Contractor shall report all incidents/accidents as required in terms of legislation including near miss incidents, first aid, medical treatment, lost time incidents (lost time injuries and fatalities); Section 24 and 25 incidents; electrical contact; major equipment damage; chemical spillage and other environmental incidents within 24 hours or before the end of the work shift.

All fatal incidents, employee and contractor incidents, shall be reviewed by the committee within one week after the incident and the members of the Project Progress meeting notified of corrective actions taken. Preliminary investigation information shall be shared

A comprehensive and detailed investigation report shall be submitted to the Gatsheni Sizwe (Pty) Ltd manager within 7 -14 days after the incident which shall include: Date, time and place of incident; Description of incident; Root cause of incident/accident; Type of injury (if any); Medical treatment provided (if any); Persons involved; Names of witness/s; Corrective action to prevent recurrence (with clear deadlines and responsible persons). It is required that all corrective action is closed out within 3 months. If this is not practicable within the time frame, then it is to be submitted at a later date agreed to by the Lepelle Northern Water or Gatsheni Sizwe (Pty) Ltd.

Gatsheni Sizwe (Pty) Ltd shall ensure that all accidents/incidents are investigated by him/her and are discussed at the SHE committee meeting held on site.

Accidents/incidents shall be investigated and recorded in terms of the requirements of the Occupational Health and Safety Act, the National Environmental Management Act and National Water Act as applicable.

Please note that providing the Accident/incident investigation report does not exempt the Principal Contractor from providing accident reports required by Statutory Authorities, in particular, the Contractors' responsibility for reporting accidents in accordance with the requirements of the OHS Act and COIDA Act.

Gatsheni Sizwe (Pty) Ltd will participate in any accident/incident investigation if the accident/incident is directly linked to any activity within the scope of the construction project.

Principal Contractor shall keep on site/workplace a record of all accidents and incidents reported in the form of the OHS Act Annexure 1 investigation form as referenced in the OHS Act. (Incident Investigation Report) Gatsheni Sizwe (Pty) Ltd on behalf of Lepelle Northern Water reserves the right to conduct an independent investigation in any incident

Principal Contractor shall report **all Incidents/Accidents** where an employee is injured on duty to the extent that he:

- a) Dies
- b) Becomes unconscious
- c) Loses a limb or part of a limb
- d) Is injured or becomes ill to such a degree that he is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he was usually employed

Or where -

- e) A major incident occurred
- f) The health or safety of any person was endangered
- g) Where a dangerous substance was spilled
- h) The uncontrolled release of any substance under pressure took place
- i) Machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- j) Machinery ran out of control

To Lepelle Northern Water or representative or agent within two days and to the Provincial Director of the Department of Labour within seven days from date of incident (Section 24 of the Occupational Health and Safety Act (Act no. 85 of 1993) and General Administrative Regulations), except that, where a person has died, has become unconscious for any reason or has lost a limb or part of a limb or may die or suffer a permanent physical defect, the incident must be reported to both Lepelle Northern Water and the Provincial Director of the Department of Labour forthwith by telephone, telefax or e-mail.

Principal Contractor shall provide Lepelle Northern Water with copies of all statutory reports required in terms of the Occupational Health and Safety Act (Act no. 85 of 1993) within 7 days of the incident occurring.

Principal Contractor shall provide Lepelle Northern Water with copies of all internal and external accident/incident investigation reports, within 7 days of the incident occurring.

Accident and Incident Investigation

Principal Contractor will be responsible for the investigation of all accidents and/or incidents where employees and non-employees were injured to the extent that they had to receive medical treatment other than first aid.

The results of the investigation will be entered into the accident and/or incident register. Principal Contractor will be responsible for the investigation of all minor and non-injury incidents as described in Section 24(1)(b) and (c) of the Occupational Health and Safety Act (Act no. 85 of 1993) and for keeping a record of the results of the investigations including the steps taken to prevent similar accidents in future. Principal Contractor will be responsible for the investigation of all road traffic accidents, related to the construction activities, and for keeping a record of the results of the investigations including the steps taken to prevent similar accidents in future.

19. MONTHLY STATISTICAL REPORTING AND WEEKLY STATISTICAL REPORTING

Principal Contractor must report to Gatsheni Sizwe (Pty) Ltd on the 2nd of every month, each company's performance which includes the following as a minimum: Incidents: Lost time /Disabling Injuries, Medical; first aid, near misses reported; Staff Complement per principal contractor and Sub-Contractor Company; Actual man- hours worked; Status on incidents investigated and recommendations closed out and Status on audits conducted and findings closed out. Principal Contractor Safety Officer where appointed must report all the SHE Matters to Gatsheni Sizwe (Pty) Ltd on include day and time using the Weekly Report Template.

20. OPERATIONAL CONTROL REQUIREMENTS

Notices and Signs

It's mandatory for Principal Contractor and their sub-contractors to display construction notices and signage as following:

- a) The location of every first aid box; fire extinguisher and emergency exit are to be clearly indicated by means of a sign.
- b) At the entrance to premises where machinery is used: Restricted access on "**Authorized Person Only**" signs on entry. Notices & Signs at entrances and along perimeters indicating "**No Unauthorized Entry**".
- c) When in use, an Explosive Power Tool shall have a sign, warning people of its use.
- d) Principal Contractor shall provide the signage where work is conducted and where unauthorized entry is prohibited and/or where alerting and cautioning passers-by to be aware of potential dangers.
- e) Notices & Signs at entrance instructing visitors and non - employees what to do, where to go and where to report on entering the site/yard with directional signs e.g. "**Visitors to report to Office**"
- f) Notices & Signs posted to warn of overhead work and other hazardous activities. e.g. **General Warning Sign's**
- g) All equipment brought onto the construction site, (including motorized equipment, e.g. bobcat) that requires PPE to be worn during operation, must have the relevant PPE mandatory sign/s attached. The type and use of PPE will be placed at all entry points to the construction site.
- h) At every place where machinery is used a notice (English & Pictograms) shall be posted.
- i) Explosive Power Tool shall have a sign warning people when it is in use.
- j) Electrical Control Gear. A notice shall be posted so as to warn against the re- closing of a switch of control gear whilst a person is working on such equipment.
- k) Emergency contact telephone numbers.
- l) Adequate scaffolding signs. (When applicable).
- m) Adequate firefighting equipment signs.
- n) Speed limit signs.
 - "MEN WORKING ABOVE"
 - "MEN WORKING BELOW"
 - "ROAD CLOSED - DETOUR"
 - "CAUTION - MEN WORKING - DRIVE SLOWLY"
 - "EXCAVATION IN PROGRESS"
 - "NO WALKWAY"
 - "NO CLEARANCE"

- “WALKWAY”
 - “RED AND YELLOW DANGER FLAGS”
 - “DANGER - LIVE CABLES”
- o) Warning notices at openings through which people may fall.
- p) Risk based signage depending on the task being performed i.e. overhead work, hot work etc.
- q) No-entry signs to incomplete platforms

Barricading

Principal Contractor will erect barricading for any major operations involving site works for approval by Lepelle Northern Water . Examples are Man at work, Narrow, Arrow etc. Where there is a risk of injury, Principal Contractor will erect the area secure solid barricades. The barricade will be constructed a minimum of 1,5m away from the area. All physical barricades must be covered with netting ensuring visibility for personnel and operators of machinery.

Barricading for the prevention of access into areas with a potential risk of injury shall as a minimum be constructed of a handrail, knee-rail and appropriately supported as to prevent any person from falling into the restricted/risk area.

Working in confined spaces (manholes)

Principal Contractor will take adequate steps to eliminate or control hazards when the workers working inside confined space. Before working in an area, which contains dust, the area is to be ventilated and hosed down to settle and dampen the dust.

Principal Contractor shall provide all necessary equipment to manage confined spaces, including all necessary monitoring and rescue equipment (such as tripods, breathing equipment and the like). Principal Contractor shall ensure that all persons working in a confined space or managing entry to a confined space are appropriately trained.

Construction Vehicles and Mobile Plant

In terms of regulation 23(1) to 23 (2) provides regulations which Principal Contractor must comply with in regard to construction vehicles and mobile plant:

All lifting equipment and cranes must load test certificates.

All motor vehicles operated by Contractors within the area shall, in all respects, comply with the Road Traffic Ordinance and Road Traffic Act. Designated drivers shall be in possession of a driver's license, valid for the class of vehicle. The person or operator so authorized and shall produce such card on request shall keep the driver's license.

All drivers of construction vehicles and mobile plant to have medical certificates of fitness. Each Project site will have system/ process to manage vehicle access to site.

The speed limit within the bounds of the construction site is 40 km/h.

No drivers or operator may talk on cell phones or two-way radios whilst driving, unless a hands-free kit is used. It is the responsibility of the driver to ensure that:

- He/ She and his/her passengers wear seat belts whilst the vehicle is in motion.
- Comply with all safety, direction and speed signs.
- Ensure that vehicle loads are properly secured and loaded onto vehicles.
- Ensure that vehicles are not overloaded.

The requirements with regard to the transportation of tools/equipment/material and persons on the back of construction vehicles must be adhered to:

- No Personnel to be transported in the back of construction vehicles with tools.
- Tools, equipment and material to be secured in order to prevent movement;
- Fixed and firmly secured seats with seat belts - Number of passengers

- The driver and all passengers must have seatbelts fastened whilst driving

Principal Contractor shall ensure that his employees and those of his subcontractors do not:

- Ride on back of elevators, cranes or other mobile plant equipment. Only competent Machine, Equipment operator in Construction Vehicles.
- Leave vehicles unattended with the engine running.
- Park vehicles in unauthorized zones/areas.

Principal Contractor shall be solely responsible for the safety and security of any of his vehicles (including private vehicles) on the premises.

A current maintenance logbook is required for all cranes and large plant equipment and shall be available for inspection at any time. The logbook shall be located in the cabin of the crane or plant equipment.

Principal Contractor is to ensure that visibility (e.g.: switching on of lights, reflectors, barricades equipped with lights, etc.) is enhanced on all Construction Vehicles and Mobile plants in order to identify the location of the vehicles or plant.

Principal Contractor must maintain his vehicles in roadworthy condition and a valid license. These vehicles shall be subject to inspection by the Client/Agent's representative. Vehicles, which are not roadworthy, will not be allowed onto the site.

In the event where the Principal Contractor and his sub-contractor do not own the equipment, the Principal Contractor is still responsible for ensuring all conditions are complied with by all of his subcontractors or hire companies. Drivers/operators shall be responsible for the travel-worthiness of all loads conveyed by them.

Cranes and lifting equipment

Regulation 22 provides for requirement for Principal Contractor to provide risk assessments and procedure or method statements in regards cranes and for competent operators with medical certificates of plant and cranes. Compliance with Driven Machinery Regulations promulgated in terms of the Occupational Health and Safety Act (Act no 85 of 1993)

Lifting equipment must be designed and constructed in accordance with the manufactures/designer's specifications as well as generally accepted technical standards and operated, used, inspected and maintained in accordance with the manufactures requirements as well as that of the of Driven Machinery Regulations promulgated in terms of the Occupational Health and Safety Act (Act no 85 of 1993)

Lifting equipment is clearly and conspicuously marked with the maximum mass load (MML) that it is designed to carry safely. Lifting equipment shall be fitted with a load limiting device that automatically arrest the lift when the load reaches its highest safe position or when the mass of the load is greater than the MML. No person may be lifted by a lifting machine not designed for lifting persons unless in a cradle approved by the inspector of the Department of Labour.

All lifting equipment and cranes must load test certificates.

No Crane shall be used without a pre-use check and findings entered on an approved checklist. Before any cranes are established on site the following must be inspected and approved. Certification will be required for record purpose, and shall cover the following:

- Brake or other device capable of holding the maximum mass should the power fail, or which is such that it shall automatically prevent the uncontrolled downward movement of the load when the raising effort is interrupted; and Limiting device that shall automatically arrest the driving effort when
- The Hook or Load attachment point of the Power-Driven lifting machine reaches its highest safe position; and in the case of a Winch Operated lifting machine with a lifting capacity of 5000kg or more; the load is greater than the rated mass load of such machine

Bulk Mixing Plant

Regulation 20 states that Principal Contractor must ensure that the operations of a bulk mixing plants are operated and supervised by a competent person who has been appointed in writing and is:

- Aware of all the dangers involved in the operation thereof; and
- Conversant with the precautionary measures to be taken in the interest of health and safety.

No person supervising or operating a bulk mixing plant may authorize any other person to operate the plant, unless that person is competent to operate a bulk mixing plant.

Principal Contractor must ensure that the placement and erection of a bulk mixing plant complies with the requirements set out by the manufacturer and that such plant is erected as designed.

Structures

In terms of regulation 11 Principal Contractor must comply with regulation:

- He or she prevent uncontrolled collapse of any new/existing structure Ensure structures are not overloaded to the extent that it becomes unsafe
- Contractor to ensure all drawing are kept on site and available to interested parties
Owners of structures to ensure inspections are conducted by competent persons at least once every 6 months for the first 2 years and thereafter annually.
- Owner to retain records to ensure maintenance of a structure and ensure records are kept

Scaffolding

Principal Contractor compliance with regulation 16(1), 16(2) and usage complies with regulation 44 of the Act. Principal Contractor must appoint a competent person in writing to supervise all scaffolding works, erection, team leaders and inspectors are competent.

A scaffold is a temporary structure for the purpose of creating a work platform, on which workers can carry out their work at varying heights, whether on buildings under construction, or during maintenance of buildings.

The most serious risks associated with scaffolds are firstly that the structure itself may collapse, leading to damage and injuries. Secondly, the items on the scaffold may fall and be damaged or cause damage to items on a lower level or injure or kill people. Thirdly, people may fall from the scaffold and the results are usually serious or fatal.

Personal and other Protective Equipment

In terms of Section 8 of the OHS Act, the duty of the employer is to take steps to eliminate or mitigate (hierarchy of control measures) any hazard or potential hazard to the safety or health of employees before resorting to PPE.

Principal Contractor employees and his sub-contractor employees at the construction site, including visitors, shall use the following SANS or the relevant internationally recognized authority approved risk-based PPE at all times, as a minimum:

- Head protection (Hard hat).
- Steel toe capped safety boots.
- Eye protection.
- Long sleeved and long pants protective clothing.
- High visibility vests.

Refer to General Safety Regulation 2 of the OHS Act However, if there are particular activities/areas/risk assessments that require a specific type of PPE, then that specific PPE requirement must be adhered to (e.g.: for dusty environments – eye goggles; for welding – welding helmet; etc.).

Principal Contractor must provide a detailed program on the issuing, maintenance and replacement of PPE for all his employees and subcontractors on site. Principal Contractor required to keep an updated register of all PPE issued to staff, including that of his subcontractors.

The principal contractor is required continuously to identify the hazards in the workplace and deal with them. He must either remove them or, where impracticable take steps to protect workers and make it possible for them to work safely and without risk to health under the hazardous conditions.

Personal protective equipment should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of personal protective equipment is considered.

Where it is not possible to create an absolutely safe and healthy workplace the principal contractor is required to inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

Suspended Platforms

A contractor must appoint a competent person in writing who must ensure that all suspended platforms work operations are carried out under his or her supervision and that all suspended platform erectors, operators and inspectors are competent to carry out their work. Principal Contractor must adhere to the requirements by Regulation 17.

No contractor may use or permit the use of a suspended platform, unless -

- a) the design, stability and construction thereof comply with the safety standards incorporated for this purpose into these Regulations under section 44 of the Act;
- b) he or she is in possession of a certificate of system design issued by a professional engineer, certificated engineer or a professional technologist for the use of the suspended platform system; and
- c) he or she is, before the commencement of the work, in possession of an operational compliance plan developed by a competent person based on the certificate of system design contemplated in subparagraph (b) and applicable to the environment in which the system is being used, which operational compliance plan must include proof.

Explosive Actuated Fastening Devices

No contractor may use or permit any person to use an explosive actuated fastening device unless:

- The user is provided with and uses suitable protective equipment
- User is trained in the operation, maintenance and use of such a device
- Firing mechanism designed to ensure no accidental firing

Blasting Operations

No blasting shall be done by Principal Contractor or subcontractors without the approval and permission of Lepelle Northern Water Gatshehi Sizwe (Pty)Ltd. The Contractor shall apply in writing to Lepelle Northern Water for permission to blast. All contact with the Inspector of Labour shall be done through the appropriate channels. Principal Contractor must furnish the following information to Lepelle Northern Water and Gatshehi Sizwe (Pty)Ltd before and blasting takes place:

- The blaster must hold a surface-blasting permit for blasting.
- The name of the blaster.
- The number of his blasting permit.
- The registration number of the explosive vehicle.
- The number of the continuous transport permit held.
- The blasting method statement in detail.

Hazard Identification Risk Assessment. The Occupational Health and Safety Act (Act no. 85 of 1993) and Mine Guidelines are to be strictly adhered to at all times. NB: Insofar as those Regulations shall apply in all cases, irrespective of the depth of the hole to be blasted. The Site Manager of Principal Contractor is to be advised each morning as to the blasting program for the day.

Electrical installations and machinery on construction sites

Principal Contractor must, in addition to compliance with the Electrical Installation Regulations, 2009, and the Electrical Machinery Regulations, 1988, promulgated by Government Notice No. R. 1593 of 12 August 1988, ensure that:

- Before construction commences and during the progress thereof, adequate steps are taken to ascertain the presence of and guard against danger to workers from any electrical cable or apparatus which is under, over or on the site;
- All parts of electrical installations and machinery are of adequate strength to withstand the working conditions on construction sites;

Electrical and mechanical lockout

An electrical and mechanical (as applicable) lockout procedure must be developed by the principal contractor and submitted to Lepelle Northern Water or Gatsheni Sizwe (Pty)Ltd for approval before construction commences. All contractors on site must adhere to this lockout procedure.

Fuel Storage

No petrol or fuel oil shall be stored in bulk on the surface in quantities in excess of two thousand liters in any tank above or below ground level except with the prior written approval of the Chief Inspector. No petrol shall be stored in drums in excess of a total of two hundred liters in any building or other place except with the prior written approval of the Department of Labour Chief Inspector. No fuel oil shall at any time be stored underground unless it is stored in a suitable container or tank, which does not leak.

Every storage tank provided at any filling station on the surface for the purpose of containing petrol or fuel oil shall be suitably constructed to an acceptable standard that would ensure the safe storage thereof. Suitable means for firefighting shall be installed at a safe location for the extinguishing of fire in the event of an incident. Fire equipment supply shall be appropriate to the quantity being stored.

All storage facilities shall be banded 110% of the quantity contained and banded areas will be supplied with a drain facility to enable the banded area to be drained in a receptacle for disposal in the event of a spill or accumulation of water.

Housekeeping and general safeguarding on construction sites

Principal Contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, promulgated by Government Notice No. R. 2281 of 16 October 1987, ensure that suitable housekeeping is continuously implemented on each construction site, including:

- The proper storage of materials and equipment;
- The removal of scrap, waste and debris at appropriate intervals;
- Ensuring that materials required for use, are not placed on the site so as to obstruct means of access to and egress from workplaces and passageways
- Ensuring that materials which are no longer required for use, do not accumulate on and are removed from the site at appropriate intervals;
- Ensuring that waste and debris are not disposed of from a high place with a chute, unless the chute complies with the requirements set out in regulation 14(6);
- Ensuring that construction sites in built-up areas adjacent to a public way are suitably and sufficiently fenced off and provided with controlled access points to prevent the entry of unauthorized persons;

- Ensuring that a catch platform or net is erected above an entrance or passageway or above a place where persons work or pass under, or fencing off the danger area if work is being performed above such entrance, passageway, or place so as to ensure that all persons are kept safe in the case of danger or possibility of persons being struck by falling objects.

Stacking and storage on construction sites

Principal Contractor must, in addition to compliance with the provisions for the stacking of articles in the General Safety Regulations, 2014, regulation 28 ensure that:

- A competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site;
- Adequate storage areas are provided; There are demarcated storage areas; and
- Storage areas are kept neat and under control.

Fire precautions on construction sites

The principal contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, ensure that:

- All appropriate measures are taken to avoid the risk of fire;
- Sufficient and suitable storage is provided for flammable liquids, solids and gases;
- Smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials;
- In confined spaces and other places in which flammable gases, vapor's or dust can cause danger –
- Only suitably protected electrical installations and equipment, including portable lights, are used;
- There are no flames or similar means of ignition; There are conspicuous notices prohibiting smoking;
- Oily rags, waste and other substances liable to ignite are without delay removed to a safe place; and
- Adequate ventilation is provided;
- Combustible materials do not accumulate on the construction site;
- Welding, flame cutting and other hot work are done only after appropriate precautions have been taken to reduce the risk of fire;

Excavations

Principal Contractor must ensure compliance regulation 13 amongst other must appoint competent person for supervision of excavation works. Principal Contractor must provide for Excavation and Back Filling Plan.

Principal Contractor who performs excavation work must take reasonable and sufficient steps in order to prevent, as far as is reasonably practicable, any person from being buried or trapped by a fall or dislodgement of material in an excavation. May not require or permit any person to work in an excavation, which has not been adequately shored or braced: Provided that shoring and bracing may not be necessary where.

Appropriate signage shall be affixed to the barricade indicating the risk associated (i.e., deep excavation, lifting operations etc.) and the responsible Supervisor and contact details shall be displayed

The process of excavation and back filling must be carried out as a sequential process following one another as quickly as possible. Excavations must only remain open for a minimum period of time and during this time they must be clearly demarcated. If excavations place the public at risk these sites must be fenced. The residents directly affected by open trenches must be notified of the dangers. This will be done during the site-specific phase.

21. HEALTH AND SAFETY AWARENESS PROGRAMME

The awareness program must be provided by Principal Contractor for community awareness, Schools, Clinic, local Vendors etc., must be in place to create an occupational health and safety culture within employees. The following are some of the methods that may be used:

- Toolbox talks;
- Posters;
- Videos;
- Competitions;
- Suggestion schemes;
- Participative employee activities such as “occupational health and safety circles”.

22. MINIMUM REQUIREMENTS OF THE SHE FILE

As required by the Construction Regulations (2014), Principal Contractor and other Contractors will each keep an SHE File on site containing the following minimum documentation:

- a) Approval letter by Lepelle Northern Water on contents of Health and Safety File / SHE Plan;
- b) Notification of construction work to the relevant Department of Labour (stamped on each page / no faxed copies);
- c) Scope of work to be performed;
- d) OH&S / SHE Policy and other Policies;
- e) Updated copy of the Occupational Health and Safety Act (Act no. 85 of 1993) and its Regulations.
- f) Updated copy of the Compensation for Occupational Injuries and Diseases Act (Act no. 130 of 1993) and its Regulations;
- g) Proof of registration and good standing with the Compensation Commissioner or another licensed Insurer;
- h) SHE plans agreed with Lepelle Northern Water including the underpinning risk assessment(s);
- i) A list of contractors (sub-contractors) including copies of the agreements between the parties and the type of work being done by each contractor;
 - Notice of new projects;
 - Designs and/or drawings;
 - Copies of occupational health and safety committee meetings and other relevant minutes;
 - Copies of written designations and appointments of competencies;
 - Management structure (inclusive of OH&S responsibility & meeting structure);
 - Induction training and site, SHE rules;
 - Occupational health and safety training;
 - Arrangements with contractors and/or mandatories;
 - Description of security measures;
 - Occupational health and safety rules and procedures;

The following registers:

- Accident and/or incident register;
- Occupational health and safety representative's inspection register;
- Construction vehicles and mobile plan inspections;

- Daily inspections of construction vehicles, plant and other equipment by the operator, driver and/or user;
- Daily inspections of excavations by competent person;
- Daily inspections of demolition work by competent person;
- Record of entry to confined space;
- Record of training;
- Record of toolbox talks;
- Designer's inspections and structures record;
- Inspection and maintenance of explosive powered tools;
- Inspection of electrical installations (including inspection of portable electrical tools, electrical equipment and other electrical appliances);
- Fall protection inspections;
- First-aid box content;
- Record of first-aid treatment;
- Fire equipment inspection and maintenance;
- Record of hazardous chemical substances kept and used on site;
- Ladder inspection;
- Machine safety inspections (including machine guards, lock-outs etcetera);
- Inspection registers and logbooks for lifting machines and -tackle (including daily inspections by drivers/operators);
- Inspection of temporary work
- Inspection of scaffolding;
- Inspection of excavation
- Inspection of demolition work
- Inspection of tunneling
- Inspection of stacking and storage;
- Inspections of structures;
- Inspection of use and temporary storage of flammable liquids on construction sites
- Inspection of water environments
- Inspection of housekeeping and general safeguarding on construction site
- Inspection of construction employees' facilities
- Inspection of suspended platforms
- Inspection of rope access work
- Inspection of material hoists
- Inspection of bulk mixing plant
- Inspection of explosive actuated fastening device
- Inspection of cranes and Load Test Certificates
- Inspection of construction vehicles and mobile plant Inspections of vessels under pressure;
- Inspection of electrical installations and machinery on construction sites; and
- Records of issuing of Personal Protective Equipment;
- Lepelle Northern Water Master Way Leaves

Monthly reporting and recording of statistics:

- a) Keeping of any other record in terms of applicable legislation falling within the scope of SHE Legislation applicable to the project and the Principal Contractor/ Contractor's activities and organization.
- b) Emergency preparedness and response program;
- c) Investigation and reporting of incidents and/or accidents (internal to Client and Department of Labour / Compensation Commissioner
- d) All other applicable records. Principal Contractor duties are to ensure compliance with the Construction Regulation (2014), which are to:
- e) Provide a suitably documented health and safety plan based on the health and safety specification
 - Keep a health and safety file on site, which must include all documentation required in terms of the Act and
 - Regulations, and which are made available on request to an inspector, the client, the client's agent or a Contractor
 - Ensure appointed contractor complies with the Act
 - Perform duties of client with regard to contractors
 - Appoint contractors in writing
 - Ensure a contractor's health and safety plan is implemented and maintained
 - Ensure that potential contractors submitting tenders have made sufficient provision for health and safety
 - Ensure Principal Contractor is satisfied that contractor that he/she intends to appoint, is competent and has resources to perform work safely
 - Prior to work commencing, every contractor needs to be registered and in good standing with the compensation fund or with a licensed compensation insurer - COID Act, 1993
 - Audit contractor monthly
 - Stop any contractor from executing work which is not in accordance with health and safety plan for the site or which poses a threat to health and safety of persons
 - Where changes are made to the design and construction, make available sufficient health and safety information and resources
 - After discussions and negotiations with Principal Contractor on the contents of the health and safety plan, it must be sent for final approval
 - Ensure copies of all health and safety plans are available on request to an employee, an inspector, a contractor, the client or the client's agent
 - Hand over the consolidated health and safety file to the client on completion of the construction work (Include drawings, designs, materials used, etc.)
 - Provide updated list and agreements/contracts of all contractors on-site to the client
 - Ensure all employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3
 - Principal Contractor must ensure cooperation between all appointed contractors.
 - Principal Contractor allows or permit any employee or person to enter any site, unless they have undergone a health and safety induction training

Principal Contractor must ensure all visitors to a construction site have personal protective equipment. The regulations require that the duties extend through to all levels of responsibility to sub - contractors. For this reason, it is advised that contractors require sub-contractors to be up front on their intent to further sub- contract any aspects of their work. Lepelle Northern Water will conduct an inspection and evaluation of the principal contractor's SHE File on a monthly basis.

Principal Contractor is required to submit the SHE File after receiving letter of appointment from Lepelle Northern Water. Lepelle Northern Water will allocate a day to evaluate the file and to give feedback on the evaluation report of the file to the contractor.

The approval letter from Lepelle Northern Water must be kept in the SHE File and any letter issued concerning the evaluation of the file.

23. COVID-19 BASELINE RISK ASSESSMENT.

Compliance with the Occupational Health and Safety Act No.85 of 1993 and the Disaster Management Act, of 2002, and the subsequent regulations. This specification is compiled in line with the COVID-19 Baseline Risk Assessment.

Principal Contractor must use it as a reference document when developing their COVID-19 response plans.

Workplace Plan - A plan must be developed by the contractor for the phased in return of employees to site. Please refer to the latest regulations and amendments, all persons who are able to work from home should do so. Coordination on Site Relating to COVID-19 matters –

The contractor must appoint a manager to address employees concerns and keep them informed re COVID-19.

Additionally, the contractor must designate a COVID-19 compliance officer (required of all industries, businesses, entities, both private and in the public sector). This compliance officer is responsible for overseeing the following:

- implementation of the workplace plan; and adherence to the standards of hygiene and health protocols relating to COVID-19 at the workplace;
- developing a plan for the phased in return of their employees to the workplace, prior to reopening the workplace for business, which plan must correspond with Annexure E of the Disaster Management Act 2002 (as amended April 2020) and be retained for inspection and contain the following information: which employees are permitted to work; what the plans for the phased-in return of their employees to the workplace are; what health protocols are in place to protect employees from COVID-19; and the details of the COVID-19 compliance officer; phase in the return of their employees to work to manage the return of employees from other provinces metropolitan and district areas; and develop measures to ensure that the workplace meets the standards of health protocols, adequate space for employees and social distancing measures for the public and service providers, as required.

Transportation to Site - Procedures for Transportation of Workers to Site – employees should be advised that if using transport, passengers must wear a cloth mask to be allowed entry into the vehicle. Hand sanitisers must be made available, and all passengers must sanitise their hands before entering. Public transport vehicles must be sanitised on a daily basis. Please note that the government mandated limit on passengers per vehicle must be strictly adhered to. **Site access** - Entry to site may only be through pre-arranged security-controlled access points.

Contractor must detail how will members of public be prevented from accessing site (risk of cross contamination between persons working on site and members of public).

Provision of Visitors Book for signing in and out of site. Records of all personnel entering site and their contact details must be kept.

Screening on Site - Contractor to advise how will personnel on site be screened on a daily basis for symptoms of COVID-19, including a symptom check as well as temperature assessment (digital thermometer). The contractor must describe their procedure for employees on site, suspected of having COVID-19 symptoms, refusing to undergo medical examination, prophylaxis, treatment, isolation, and quarantine.

Sites with more than 500 employees must have testing facilities.

Risk assessment and safety procedure - Contractor must provide a written policy concerning the protection of its staff from COVID-19. Contractor must compile a COVID-19 risk assessment and safety procedures for the site. How will it be communicated to all on site and records kept thereof. The Risk Assessments must include the identification of exposure levels, identification of "high contact" activities, the identification of vulnerable workers and special measures for their protection, including protection against unfair discrimination or victimization.

Safety Signage and Hotline Number - Contractor to implement placement of COVID-19 safety signage and hotline number at site entrance and on site, warning of hazards and advising control measures (see samples in Annexure to this document).

Please note that signage must be representative of the local languages.

Communication Procedures - Contractor to describe comprehensive induction and toolbox talk procedures to include:

COVID-19. Toolbox talks should be conducted weekly on COVID-19 control measures and risks on site, include personal hygiene - manner of controlling coughing and sneezing on site - in elbow. Emergency Procedure - Contractor must describe communication of COVID-19 symptoms and protocol that must be followed if person demonstrates symptoms, or is thought to have COVID-19 - symptoms of COVID-19 include cough, sore throat, shortness of breath or fever/chills (or ≥ 38 C measured temperature), redness of eyes, also additional symptoms – body aches, loss of smell or loss of taste, nausea, vomiting, diarrhoea, fatigue, weakness or tiredness. Contractor must advise personnel on site of the symptom reporting procedure to site management of COVID-19 symptoms, and referral protocol for screening or testing if showing symptoms.

Emergency COVID-19 protocol that must be put in place by Principal Contractor must include:

- Sick workers may not enter workplace.
- If sick worker already on site, then worker must be isolated in designated area for isolation on site, provided with FFP1 surgical mask and transported for self-isolation or for medical examination or testing at identified testing site.

Worker placed on sick leave.

On receiving their results, the employee and/or health professional supporting the employee should notify their workplace so that the employee is managed accordingly. The workplace should proactively take steps to obtain this information to avoid any delays in reporting.

Assess the risk of transmission, disinfect area and workers workstation, refer exposed workers for screening, etc.

Lodge claim with Workman's Compensation if infection occupationally acquired. Worker may only return to work after undergoing a medical evaluation confirming worker has tested negative for COVID-19.

Worker must be closely monitored for symptoms on return to work.

If worker has been diagnosed with COVID-19 the employer must notify Dept of Health and Dept of Employment and Labour

NOTE THAT: personnel on site, or presenting themselves to site who appear sick, or have symptoms associated with COVID-19 may not be allowed on site.

Welfare and Washing Facilities, Sanitising and Disinfection - Contractor must describe provision of soap and clean running water and sanitisers at site entrance and at other locations on site. Correct manner of washing / disinfecting hands, 20 second rule. Use of paper towels only. Disinfection of work surfaces and equipment control procedures required - carried out before work begins, regularly during day and after work ends. Toilets, common areas, door handles, shared electronic equipment and any other shared equipment must be regularly cleaned and disinfected, biometric systems disabled or made COVID-19 safe.

Hand sanitiser must contain 70% alcohol.

Employees working away from home should be provided with hand sanitiser by the employer.

COVID-19 PPE on Site - Contractor must describe controls for wearing of PPE on site, including wearing of cloth masks on site - people working and visiting site must be instructed on the correct way of wearing cloth masks, procedure for maintenance and replacement of cloth masks. Surgical masks and N95 masks should only be worn by frontline health workers, not site staff. Note that some surgical masks should be kept on site to give to persons exhibiting COVID-19 symptoms prior to being taken away for testing.

Employer is required to provide each employee with at least 2 cloth masks and must make appropriate arrangements for washing, drying and ironing of cloth masks.

Supervision and Monitoring on Site - Monitoring systems must be in place by Contractor to ensure compliance with safety protocols and identify infections among employees - supervision monitoring and enforcement - how will it be done by the contractor

Ventilation on Site - How will ventilation and air quality be made safe on site.

Waste Management - Sufficient refuse bins must be on site for disposal of tissues, used PPE. Procedure for safe removal of contents of bins; used PPE, other detritus should be made in contractors safety plan.

Social Distancing Measures - Contractor must describe, so far as practicable how can numbers of workers be minimised on site at any one time (e.g.: through staff rotation, staggered working hours, shift systems, remote working arrangements or similar to achieve social distancing? (1.5m). Note that contractor must minimise contact between workers themselves and workers and public.

Depending on what is reasonably practicable, site must be arranged so that there is distance of at least 1.5m between workers and members of public or put physical barriers in place or provide workers with face shields or visors.

COVID-19 Investigation procedure - Contractor must describe how will they investigate the cause of COVID-19 infection (Including control failure and risk assessment review, checking of PPE requirements, admin support to contact tracing implemented by Dept of Health).

Important notes:

If more than 500 employees in contractors employ the employer must submit this risk assessment and written policy re health and safety of employees from COVID-19 to Safety Committee and Department of Employment and Labour.

Monitoring by the Safety Agent will be strict - noncompliance with COVID-19 control measures will be reported immediately to the principal contractor for action purposes. If necessary, transgressors will be removed from site for re-induction, or a recommendation for permanent barring from site will be made. As this is an ongoing medical crisis it is likely that control measures to prevent the spread of the virus will be updated by the government on a regular basis. Hence the measures in this section of the safety specification will be reviewed on an ongoing basis, as we receive updated information from the government.