



REQUEST FOR QUOTATION

Terms of Reference

**RE-ADVERT: INVITATION TO SUBMIT FORMAL WRITTEN PRICE QUOTATION
FOR CONSTRUCTION AND COMMISSION A BLAST FREEZER, FREEZER
STORAGE ROOM AND AN ICE ROOM for TABLE MOUNTAIN NATIONAL PARK -
SANParks**

RFQ NO: TMNP210/2025-26a

REQUEST FOR QUOTATION	
INVITATION TO SUBMIT FORMAL WRITTEN PRICE QUOTATION FOR THE CONSTRUCTION AND COMMISSIONING OF A BLAST FREEZER, FREEZER STORAGE ROOM AND ICE ROOM FOR TABLE MOUNTAIN NATIONAL PARK.	
RFQ NUMBER:	TMNP210/2025-26a
ADVERTISEMENT DATE:	17 March 2026
Compulsory Site Meeting	25 March 2026 Time: 10:00am -11:00am Address: Unit 2,63 Tenth Avenue, Retreat 7945
CLOSING DATE:	03 April 2026
CLOSING TIME:	11h00am
RFQ DOCUMENT DELIVERY ADDRESS:	tablemountain.scm@sanparks.org Please reference RFQ number on email subject line for bid submission
RFQ VALIDITY PERIOD:	90 days (commencing from the RFQ Closing Date)
TECHNICAL RELATED QUERIES	Khanyisa Tyolo Khanyisa.Tyolo@sanparks.org Ramotshwane Mogomotsi Mogomotsi.Ramotshwane@sanparks.org
SCM RELATED QUERIES	Lubabalo.Moni@sanparks.org

Bidders should ensure that bids are delivered timeously to the correct address. If the bid is late, it will not be accepted for consideration.

Bidders shall submit proposal responses in accordance with the prescribed manner of submissions as specified above. Bids received after the time stipulated shall not be considered.

Where applicable, the successful bidder will be required to fill in and sign a written Contract Form (SBD 7).

Bidders are not allowed to contact any other SANParks staff in the context of this RFQ other than the indicated officials under SBD 1 or as indicated above.

NB: No proposal shall be accepted by SANPARKS if submitted in any manner other than as prescribed above.

**PART A
INVITATION TO BID**

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE SOUTH AFRICAN NATIONAL PARKS					
BID NUMBER:	TMNP210/2025-26a	CLOSING DATE:	03 April 2026	CLOSING TIME:	11am
DESCRIPTION	INVITATION TO SUBMIT FORMAL WRITTEN PRICE QUOTATION FOR THE CONSTRUCTION AND COMMISSIONING OF A BLAST FREEZER AND FREEZER STORAGE ROOM.				
BID RESPONSE DOCUMENTS MUST BE SENT TO THE DESIGNATED EMAIL ADDRESS					
tablemountain.scm@sanparks.org					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Lubabalo Moni		CONTACT PERSON	Khanyisa Tyolo	
TELEPHONE NUMBER	021 714 2350		TELEPHONE NUMBER	071 229 6033	
E-MAIL ADDRESS	Lubabalo.Moni@sanparks.org		E-MAIL ADDRESS	Khanyisa.Tyolo@sanparks.org	
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAAA
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	[TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No	
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]					
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]	
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS					
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? <input type="checkbox"/> YES <input type="checkbox"/> NO					
DOES THE ENTITY HAVE A BRANCH IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO					
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO					
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO					
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? <input type="checkbox"/> YES <input type="checkbox"/> NO					
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER BELOW.					

TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:

- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED-(NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.**
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
- 1.4. **THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).**

2. TAX COMPLIANCE REQUIREMENTS

- 2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
- 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
- 2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.6 WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
- 2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER:

.....

CAPACITY UNDER WHICH THIS BID IS SIGNED:

(Proof of authority must be submitted e.g. company resolution)

.....

DATE:

.....

1. PURPOSE

The purpose of this RFQ is to invite a service provider for the construction and commissioning of a blast freezer room, freezer storage room and an ice room at Retreat, Cape Town.

2. BACKGROUND

South African National Parks (SANParks) is a public entity functioning under National Environmental Management: Protected Areas Act 57 of 2003 (Act 57 of 2003); with the mandate to conserve; protect; control; and manage national parks and other defined protected areas and their biological diversity (Biodiversity). As a public entity, SANParks is also governed by the Public Finance Management Act, Act 1 of 1999 (as amended by Act 29 of 1999), and it is listed as Schedule 3 Part A: public entities.

SANParks' operations are totally guided by its vision statement and mission statement. As a public entity, the organisation is committed to act in pursuance of transformation of South Africa's society in support of entrenching South Africa's democracy. In this regard, the organisation has adopted a transformation mission to guide its efforts accordingly.

3. SCOPE OF WORK

SANParks aims to appoint a service provider for the construction and commissioning of a blast freezer room, freezer storage room and an ice room.

3.1 Scope of work

- Provide for partitioning of the current room into the required size for blast freezer and cold freezer storage as per the specification sizes and drawings attached.
- Install insulation doors for both the blast freezer and freezer storage room.
- Install blast freezer for to blast freeze 1(one) ton(1000kg) of fresh fish from +10°C to -18°C in 12 hours.
- Install freezer storage room to store up 2,5 ton (2500kg) already frozen fish at -18°C.
- Commission the blast freezer and freezer storage room.
- Provide maintenance services for Blast freezer and Freezer Storage room as per BOQ and Technical Specification as and when required for a period of three (3) years.

3.2 Technical regulatory compliance for/ during installations

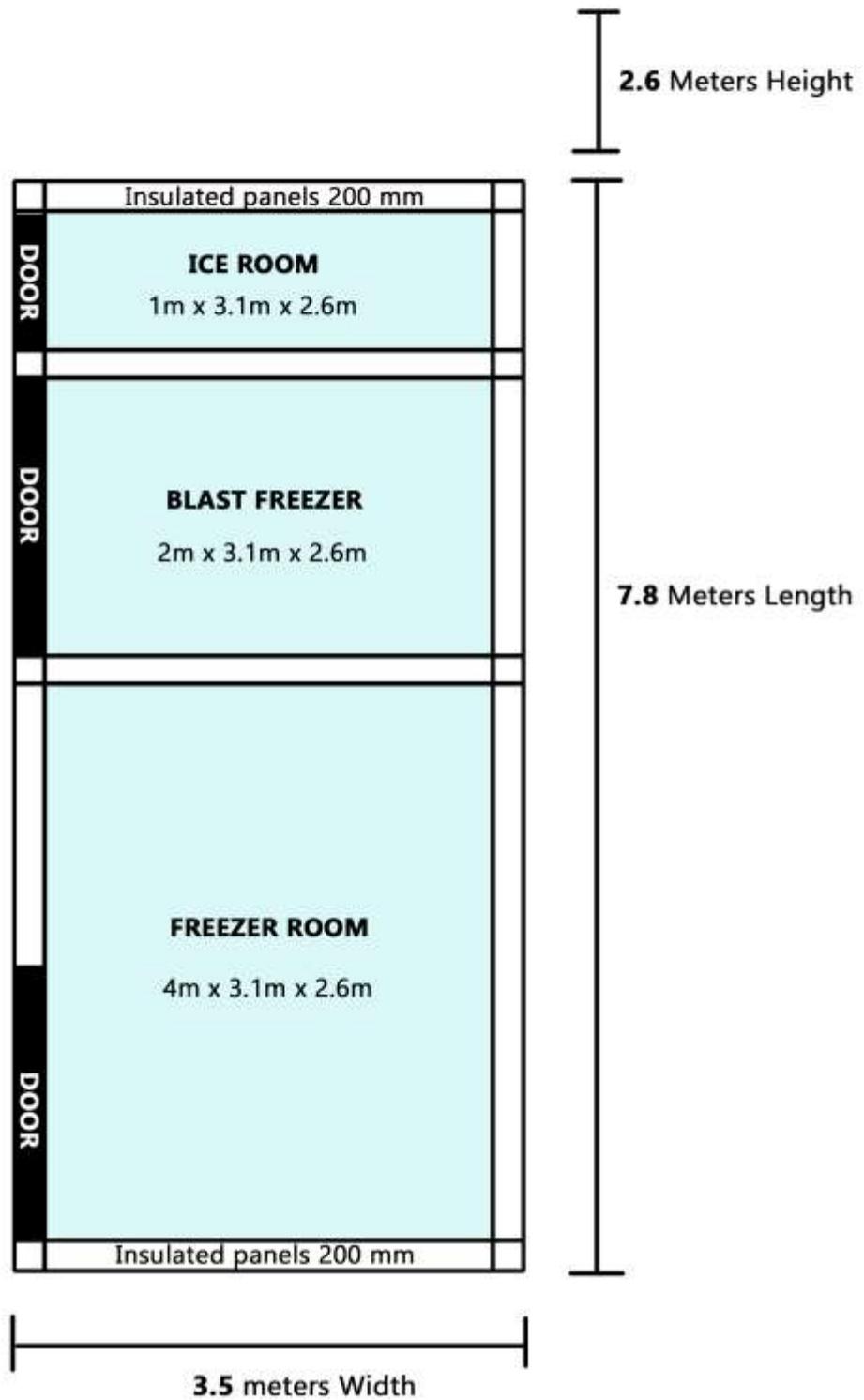
- Qualified Refrigeration Technicians: Installers must be trained in commercial and industrial refrigeration systems. (Certificate of Installers to be attached with RFQ submission)
- SAQCC Gas / SARACCA Registration: Technicians working with refrigeration systems must be registered with the South African Qualification & Certification Committee for Gas Practitioners and or South African Refrigeration & Air Conditioning Contractors Association. (Certificate to be attached with RFQ submission)

- Compliance with SANS Standards: Installations must adhere to SANS 10147 (Refrigeration systems) and SANS 1238 (Cold storage construction).
- Building Regulations (SANS 10400)
- Certificate: Must comply with SANS 10400-XA for thermal insulation and energy use.
- Food Safety & Hygiene (Health Act & HACCP)
- Blast freezers used for food must meet food-grade standards:
- HACCP Compliance: Identify and control critical points in the freezing process to prevent contamination.
- SANS 10049 & SANS 10330: Cover hygienic food handling and Hazard Analysis Critical Control Point (HACCP) systems.
- Electrical & Mechanical Compliance
- Power Supply: Must comply with SANS 10142 for electrical installations.
- Compressor & Refrigerant: Use approved refrigerants (e.g., R404A) and ensure systems are installed by certified technicians.
- Defrost Systems: Must be safe and efficient (electric or hot gas defrost).
- Occupational Health & Safety (OHS Act) 85 of 1993.
- Emergency Exits & Alarms: Required for walk-in freezers to prevent entrapment.
- Lighting: Must be IP65-rated and suitable for sub-zero environments.
- Ventilation & Airflow: Proper circulation to prevent cold spots and ensure worker safety.
- Environmental & Energy Efficiency
- Insulation: Must meet thermal conductivity standards ($\sim 0.022 \text{ W/m}\cdot\text{K}$).
- Energy Use: Systems should be optimized for low energy consumption, especially under SANS 204 for energy efficiency in buildings.

Mandatory Requirements

- **Registration: CIDB 1ME or Higher (Mandatory requirements)**
 - Valid letter of good standing for Compensation for Occupational Injuries and Diseases Act, 130 of 1993 (COIDA):
 - Qualified Refrigeration Technicians: Installers must be trained in commercial and industrial refrigeration systems. (Certificate of Installers to be attached with RFQ submission
- CIDB GRADING** - Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for a **1ME** or higher class are eligible to submit tenders.

ICE ROOM, BLAST FREEZER AND FREEZER ROOM DIMENSIONS



4. TECHNICAL SPECIFICATION – DESIGN REQUIREMENTS/GUIDELINES AND LIMITATIONS

4.1.1 ROOM 1 – BLAST FREEZER ROOM

Design limitations

- Product: 1000 kg fish, type (e.g., cod, salmon), size, and packaging (whole, fillets, glazed).
- **Freezer dimensions: 2m(width) x 3m(length) x 2.6m(height).**
- Temperature: From 10°C to -18°C in 12 hours, operating at -35°C to -40°C.
- Ambient temperature: Local maximum (40°C).
- Power supply: 380V/50Hz
- Trolley/tray requirements: 2 trolleys, 28 tiers each, 600x400x48mm pans.
- Refrigerant preference: R404A or other (e.g., R449A for lower GWP).
- Freezing Load: Includes sensible heat, latent heat, and heat of respiration for fish, plus losses from walls, air infiltration, and equipment.

Design Considerations

- **Airflow Design:** Use a tunnel air blast freezer configuration to ensure uniform airflow (10-15 m/s) over fish. Avoid open-room designs where air may bypass product.
- **Loading:** Arrange fish on trays with uniform spacing (e.g., 50-100mm gaps) to ensure consistent freezing. Avoid overloading to maintain airflow.
- **Freezing Time:** 12 hours(preferred). Faster freezing (2-3 hours)
- **Insulation:** 150mm PU/PIR panels minimize heat ingress (~1-2 kW heat load).
- **Safety Factor:** Include 20-30% extra refrigeration capacity for unexpected heat loads, equipment inefficiencies, or future expansion
- Shares a side wall with freezer storage room.

Components and Specifications for Blast Freezer

1. Insulated Room Structure (Cold Room Panels)

- **Material:** Polyurethane (PU) or Polyisocyanurate (PIR) panels with stainless steel or galvanized steel cladding (internal: 0.8mm stainless steel 304, external: 1.0mm stainless steel or color plate steel).
- **Panel Thickness:** 150mm (recommended for -35°C to -45°C operation to reduce heat transfer; thermal conductivity ~0.022 W/m·K).
- **Dimensions:**
 - Walls: 2m (W) x 2.6m (H) x 2 panels, 3m (L) x 2.6m (H) x 2 panels.
 - Floor: 2m x 3m (50mm XPS board, 4 layers, for waterproofing and insulation).
 - Ceiling: 2m x 3m.
 - Total panel area: ~22 m² (walls, floor, ceiling).
- **Features:**
 - Fire rating: B1 grade for safety.
 - Moisture-proof layer (0.2mm thick) and waterproof layer (3mm thick).
 - Sliding door (customizable, 1.5 m x 2.4m) for forklift access, with a high-quality heater to prevent frosting.

2. Refrigeration System

The refrigeration system must handle the heat load to freeze 1000 kg of fish in 12 hours, including sensible heat (cooling from 10°C to freezing point), latent heat (phase change), and additional losses.

- **Compressor:**
 - **Type:** Screw compressor , (single-stage setup) or hermetic compressor or equivalent.
 - **Capacity:** Estimated refrigeration load (based on freezing 1000 kg fish from 10°C to -18°C in 12 hours).
 - **Heat Load Calculation:**
 - **Sensible Heat:**
 - = 35,000 kJ.
 - **Latent Heat:**
 - = 250,000 kJ.
 - **Sensible Heat (Frozen):** From 0°C to -18°C, $c \approx 1.8 \text{ kJ/kg}\cdot\text{K}$.
 - = 32,400 kJ.
 - **Total Heat:** $35,000 + 250,000 + 32,400 = 317,400 \text{ kJ}$.
 - **Refrigeration Load:** $317,400 \text{ kJ} / (12 \text{ hours} \times 3600 \text{ s}) = \sim 7.35 \text{ kW}$ (product load only).
 - **Preferred Compressor Power = 8.7kW - 9kW**
- **Condenser:**
 - **Type:** Air-cooled condenser (suitable for most installations).
 - **Capacity:** Matches compressor
 - **Water Consumption:** None/ air-cooled required.
 - **Features:** PLC control for energy efficiency, adjustable energy levels.
- **Evaporator (Cooler Unit):**
 - **Type:** Ceiling or wall-mounted evaporator with high-velocity fans.
 - **Capacity:** Matches compressor load.
 - **Airflow:** 20,000 m³/h at high fan speed, reducing to 10,000 m³/h at low speed (-5°C and below).
 - **Air Speed:** 10-15 m/s over fish for efficient heat transfer (reduces boundary layer resistance).
 - **Defrost System:** Electrical defrost to prevent frost buildup, activated when compressor/fans are off.
- **Expansion Valve:** Thermostatic or electronic to regulate refrigerant flow.
- **Refrigerant:** R404A, initial charge ~10-15 kg (depends on system design).

3. Air Circulation System

- **Fans:**
 - **Quantity:** 4 high-velocity fans (depending on evaporator design).
 - **Airflow:** 20,000 m³/h at high speed, 10-15 m/s air velocity over fish.
 - **Power:** 3-4 kW total for fan motors.
- **Ducting:** Essential to direct air over fish, preventing air from taking the path of least resistance. Tunnel design with even resistance across the cross-section.

4. Trolleys and Trays

- **Trolley Specifications:**
 - **Quantity:** 2 trolleys (as per BF-2S model).
 - **Size:** : 500mm (W) x 600mm, (L) x 1850mm (H), 28 tiers each.
 - **Capacity:** ~500 kg per trolley (total 1000 kg).

- **Tray Specifications:**
 - **Size:** Stainless steel pans, 600mm (L) x 400mm (W) x 48mm (H).
 - **Quantity:** 28 pans (14 pans per trolley).
 - **Loading Density:** ~220 kg/m³ (1000 kg / 15.6 m³ ≈ 64 kg/m³).
- **Features:** Trolleys designed for secure movement.

5. Control System

- **Purpose:** Manages temperature, fan speed, and defrost cycles.
- **Type:** PLC-based control system, preferably touchscreen interface.
- **Features:**
 - Temperature monitoring (-35°C to -40°C).
 - Programmable freezing cycles.
 - Visual display of temperature, time, and cycle status.

6. Electrical System

- **Power Supply:** 380V/50Hz
- **Total Power:** ~17 kW (compressor, fans, defrost, controls).
- **Safety Features:** Compressor safety cutoffs, emergency shutdown, backup power options.

7. Additional Features

- **Defrost System:** Electrical or hot gas defrost to maintain evaporator efficiency.
- **Lighting:** LED lights for internal visibility, low heat output.
- **Safety Mechanisms:** Emergency stop, door safety locks, alarms for temperature deviations.
- **Backup System:** Optional cross-connection with cold storage refrigeration for emergency cooling.

4.1.2 ROOM 2 – FREEZER STORAGE ROOM

Design Considerations/limitations

1. **Purpose:** The freezer storage room is for holding 2.5 tons (2,500 kg) of blast-frozen fish at -18°C, not for freezing the fish from a higher temperature.
2. **Proximity to Blast Freezer:** A shared wall or insulated partition is recommended to minimize heat transfer between the two rooms.
3. **Room size:** 4m(width), 3m(long), 2.6m(high)
4. **Insulation:** The storage room must minimize heat ingress to maintain -18°C efficiently, requiring high-quality insulation panels and a robust refrigeration system.
5. **Airflow:** Uniform airflow is critical to maintain consistent temperatures throughout the room and prevent hot spots. Fans must ensure air circulates over the fish without excessive moisture loss.
6. **Capacity:** The room's volume is 4m x 3m x 2.6m = 31.2 m³. Assuming a storage density of approximately 220 kg/m³ for seafood proper stacking and airflow considerations.
7. **Access:** A sliding door is recommended for forklift access to transfer fish from the blast freezer to the storage room.

Components and Specifications for Freezer Storage Room

1. Insulated Panels

- **Specifications:**
 - **Material:** Polyurethane (PU) or Polyisocyanurate (PIR) panels with a foaming density of 42 kg/m³ for optimal insulation and structural strength.
 - **Thickness:** 150 mm for walls and ceiling, suitable for -18°C at ambient temperatures up to 40°C. For the floor, use 150 mm PIR panels or four layers of 50 mm XPS (extruded polystyrene) boards for high compressive strength (250 kPa).
 - **Fire Rating:** B1 fire protection grade for safety.
 - **Surface Material:** Stainless steel (internal) and color-coated steel plate or galvanized steel (external) with a thickness of 0.5 mm to 0.6 mm for durability and corrosion resistance.
 - **Panel Connection:** Cam-lock connection for airtight assembly or continuous panel installation.
 - **Thermal Conductivity:** Approximately 0.022 W/m·K to ensure minimal heat ingress.

2. Cold Room Door

- **Specifications:**
 - **Type:** Sliding door for ease of use with forklifts.
 - **Size:** 2.1m (height) x 2.4m (width) to accommodate standard pallets.
 - **Material:** Insulated with 150 mm PU/PIR, matching wall insulation.
 - **Features:** High-quality heater strip to prevent frosting, moisture-proof layer (0.2 mm thick), and waterproof coating (3 mm thick).
 - **Operation:** Manual or automatic sliding mechanism with an internal release for safety.

3. Refrigeration System

- **Purpose:** Maintains the storage room at -18°C with minimal temperature fluctuation to preserve fish quality.
- **Specifications:**
 - **Type:** Air-cooled condensing unit with a screw compressor or hermetic compressor or equivalent.
 - **Capacity:** For a 2.5-ton (2,500 kg) storage room at -18°C, the heat load is primarily from heat ingress through walls, door openings, and product respiration (minimal for frozen fish). Using a heat load estimate of 220 kg/m³, the room requires approximately 5-7 kW of cooling capacity, for a 24-hour operation cycle and an ambient temperature of 40°C.
 - **Compressor:** One 7.5 HP semi-hermetic compressor or two 3 HP hermetic compressors for redundancy and energy efficiency. Or equivalent compressor sizes.
 - **Evaporator:** Ceiling/wall-mounted unit cooler with high airflow (0.3 m³/min per ton of product, approximately 750 m³/h for 2.5 tons) to ensure uniform temperature distribution.
 - **Refrigerant:** R404A or R134a for (2-4 tons/day),
 - **Controls:** PLC control system with energy level adjustment for precise temperature management and energy savings. Includes sensors for temperature monitoring (±0.5°C accuracy).
 - **Power Supply:** 380-440V, 50/60 Hz, 32A, 3-phase.
 -

4. Air Circulation System

- **Purpose:** Ensures uniform temperature distribution to prevent quality loss in fish.
- **Specifications:**
 - **Fans:** High-speed fans integrated with the evaporator unit, circulating air at approximately 150 times per hour (every 24 seconds) across the room.
 - **Airflow Design:** Ducted airflow to force cold air over pallets, avoiding the path of least resistance. Air supply at floor level, with return at the top to maximize circulation over the fish.
 - **Air Speed:** 2-5 m/s to balance freezing maintenance and minimize moisture loss from fish surfaces.

5. Flooring

- **Purpose:** Supports heavy pallets (2.5 tons) and prevents heat ingress through the floor.
- **Specifications:**
 - **Material:** 150 mm PIR panels or four layers of 50 mm XPS boards (250 kPa compressive strength).
 - **Surface:** Non-slip, food-grade stainless steel or aluminium to meet hygiene standards and withstand forklift traffic.
 - **Moisture Protection:** 3 mm waterproof coating and 0.2 mm moisture-proof layer to prevent condensation and damage.
- Flooring requirements for seafood storage with forklift access.

6. Shelving/Pallet Racking

- **Specifications:**
 - **Type:** Galvanized steel or stainless-steel racking, corrosion resistant.
 - **Capacity:** Designed to hold 2.5 tons, assuming 4-6 standard pallets (1.2m x 1.0m each, stacked to 2m high).
 - **Configuration:** Racks spaced to allow 100-150 mm gaps for airflow between pallets, ensuring cold air reaches all fish surfaces.
 - **Load Density:** Approximately 220 kg/m³, allowing 2,500 kg to fit within the 31.2 m³ volume with proper stacking.

7. Safety and Monitoring Systems

- **Specifications:**
 - **Internal Alarm:** Person-trapped alarm with fridge shutdown and battery backup.
 - **Monitoring:** IoT-based temperature and humidity sensors with real-time alerts for deviations beyond $\pm 0.5^{\circ}\text{C}$.
 - **Lighting:** LED lights, IP65-rated, suitable for -18°C , providing 200-300 lux for safe operation.
 - **Emergency Access:** Internal door release mechanism.

Additional Considerations

- **Compatibility with Blast Freezer:** A shared insulated wall (150 mm PIR) between the two rooms prevents heat transfer, as the blast freezer operates at -30°C to -45°C . A connecting door or tunnel may be used for efficient fish transfer, with an air curtain to minimize cold air loss.
- **Heat Load Calculation:** The refrigeration capacity is calculated based on:
 - **Room Dimensions:** 4m x 3m x 2.6m = 31.2 m³.
 - **Insulation:** 150 mm PIR panels.
 - **Ambient Temperature:** Assumed 40°C

- **Product Load:** 2,500 kg of fish, already at -18°C, with minimal heat input from respiration.
- **Door Openings:** Estimated 2-3 openings per hour for fish transfer.
- **Safety Factor:** 20% additional capacity for unexpected heat loads. Using tools like the Blue Cold Heat Load Calculator, the estimated cooling load is 5-7 kW.

4.1.3 Ice Room

1. Refrigeration System

- **Compressor Unit:** Semi-hermetic or hermetic compressor (5–8 kW capacity).
- **Evaporator Unit:** Ceiling-mounted or wall-mounted evaporator with low-velocity fans.
- **Condenser Unit:** Air-cooled condenser sized to match compressor capacity.
- **Refrigerant:** R404A or R507 (low-temperature applications).
- **Expansion Valve:** Thermostatic or electronic, matched to system capacity.

2. Insulated Structure

- **Panels:** 150 mm thick polyurethane sandwich panels (walls, ceiling, floor).
- **Doors:** Insulated cold room door with heater strip and magnetic gasket.
- **Flooring:** Non-slip, insulated, food-grade surface- epoxy-coated concrete.

3. Temperature Control & Monitoring

- **Digital Thermostat:** Programmable controller with display.
- **Temperature Sensors:** Multiple probes for accurate monitoring.
- **Alarm System:** Audible/visual alarm for temperature deviations or door left open.

5. Lighting & Electrical

- **LED Lighting:** Waterproof, cold-room rated LED fixtures.
- **Electrical Panel:** For controlling refrigeration and lighting circuits.

6. Ventilation & Safety

- **Pressure Relief Valve:** To prevent vacuum lock when opening doors.
- **Emergency Release Handle:** Inside door safety mechanism.
- **Drainage System:** Floor drain with trap.

4.1.4 Maintenance:

- Provision of maintenance services for Blast Freezer and Freezer Storage room as per the BOQ as and when required for a period of three (3) years.
- Servicing of compressor unit, evaporator unit, condenser unit and electrical systems.
- Stipulate warranty period for both refrigeration systems.

5. COMPLIANCE AND GOVERNANCE VERIFICATION DOCUMENTS (Standard Bidding Documents)

The verification during this phase is to assess the bid responses for purposes of verifying compliance with RFQ requirements, whereby a bidder may be disqualified if they do not fully comply with which requirements as stipulated below:

- Submission of fully completed SBD1 (Invitation to Bid).
- Submission of a quotation on the company letterhead.
- Submission of fully completed SBD 4 (Bidder's disclosure).
- Submission of fully completed SBD6.1 (Preferential points claim form).
- In order to qualify for preference points for HDI and/or Specific Goals, it is the responsibility of the bidder to submit documentary proof (BBBEE certificate or sworn affidavits) in support of bidders claims for such preference for that specific goal.
- Bidders are further referred to the content of the (SBD 6.1) Preference Schedule for the full terms and conditions applicable to the awarding of preference points.
- Submission of BBBEE certificate or Sworn affidavit
- Submission of SARS Tax Pin
- CIDB 1ME or higher. (Mandatory requirements)
- Valid letter of good standing for Compensation for Occupational Injuries and Diseases Act, 130 of 1993 (COIDA): (Mandatory requirements)
- Submission of fully completed SBD7.1 (Contract Form) in case of a contract.
- Qualified Refrigeration Technicians: Installers must be trained in commercial and industrial refrigeration systems. (Certificate of Installers to be attached with RFQ submission)
- SAQCC Gas Registration: Technicians working with refrigeration systems must be registered with the South African Qualification & Certification Committee for Gas Practitioners.(Certificate to be attached with RFQ submission)

6. CENTRAL SUPPLIER DATABASE INFORMATION

Bidders are required to be registered on the Central Supplier Database (CSD) of National Treasury. Failure to submit the requested information may lead to disqualification. (Please provide proof of registration on the Central Supplier Database).

7. PRICING

INVITATION TO SUBMIT FORMAL WRITTEN PRICE QUOTATION FOR SUPPLY, DELIVER, INSTALL AND COMMISSION A BLAST FREEZER, FREEZER STORAGE ROOM AND AN ICE ROOM FOR TABLE MOUNTAIN NATIONAL PARK

SUMMARY PRICING PAGE FOR SUPPLY, DELIVER, INSTALL AND COMMISSION

1. BLAST FREEZER				
Section	Description	Qty	Unit Rate	Total (R)
1.	Supply Install and commission Blast Freezer as per technical specification 4.1.1 of 4. from page 7- page 14			
	VAT at 15%			
	Total			
2. FREEZER STORAGE ROOM				
2.	Supply, Install and commission Blast Freezer Storage room as per technical specification 4.1.2 of 4. from page 7- page 14 VAT at 15%			
	Total			
ICE ROOM				
3.	Supply Install and commission Ice Room as per technical specification 4.1.3 of 4. from page 8- page 14 VAT at 15%			
	Total			
GRAND TOTAL				

SUMMARY PRICING PAGE FOR MAINTENANCE SERVICES OF BLAST FREEZER AND FREEZER STORAGE ROOM and ICE ROOM AS PER THE BOQ AS AND WHEN REQUIRED FOR A PERIOD OF THREE YEARS

Item No	Item Description	Quantity	Price Inclusive of VAT
1.	Provide for an hourly rate for repairs/service during working hours		
2.	Provide for an hourly rate for work/ repairs/service after hours, weekends and public holidays		
3.	Once off maintenance service of the refrigeration system per annum.		
<ul style="list-style-type: none"> • Prices must be inclusive of travel • Parts replacement will align with technical specification. • Maintenance services will be done once off per annum. • Maintenance services include servicing of compressor unit, evaporator unit, condenser unit and electrical systems. 			

7. PROTECTION OF PERSONAL INFORMATION ACT, 4 OF 2013 (POPIA)

SANParks adheres to the Protection of Personal Information Act, 4 of 2013 (POPIA) requirements regarding personal information which came into effect 1 July 2021.

As SANParks, we are committed to protecting your privacy and ensuring that personal information collected is used properly, lawfully and transparently.

8. TIMELINES

The Successful supplier will be required to deliver the goods immediately after appointment as per the terms of reference on the RFQ, failure to deliver SANParks reserve the right to cancel the Purchase Order.

9. FINANCIAL PAYMENT

Payment will be made in accordance with the PFMA (within 30 days of receipt of invoice) after the service has been rendered.

10. FINAL AWARD

SANParks recommends the bidder who has quoted on all the items as required in terms of the RFQ for the contract award, subject to the bidder having supplied the relevant administrative documentation and complied in all aspects with the terms and conditions and requirements of the RFQ.

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state? **YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

.....

Full Name	Identity Number	Name of State institution

.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

2.3.1 If so, furnish particulars:

.....

¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

.....

3 DECLARATION

I, the undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect.

- 3.1 I have read, and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect.
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities

² Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....

Signature

.....

Date

.....

Position

.....

Name of bidder

SBD 6.1**PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL
PROCUREMENT REGULATIONS 2022**

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

- a) The applicable preference point system for this tender is the 90/10 preference point system.
- b) The applicable preference point system for this tender is the 80/20 preference point system.
- c) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

- 1.6** The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

$$Ps = 80 \left(1 - \frac{Pt - Pmin}{Pmin} \right) \text{ or } Ps = 90 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Percentage of ownership		
Black people with at least 51% shareholding or more	5	
Exempted Micro Enterprises; - 10 points Qualifying Micro Enterprise; - 5 points Generic; - 2 points	10	
Black woman ownership/ shareholding – 5 points maximum	5	
TOTAL POINTS CLAIMED BY THE SERVICE PROVIDER	20	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One-person business/sole propriety
- Close corporation
- Public Company
- Personal Liability Company
- (Pty) Limited
- Non-Profit Company
- State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- i) The information furnished is true and correct.
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process.
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person’s conduct.
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation.
 - (d) recommend that the tenderer or contractor, its shareholders, and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary

.....

SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ANNEXURE A:

HEALTH AND SAFETY SPECIFICATIONS

Annexure A

**Health and Safety Specifications for South African
National Parks**

**RENOVATIONS/ CONSTRUCTION / MAINTENANCE / REPAIRS AT TABLE
MOUNTAIN NATIONAL PARK – SANParks**



**HEALTH & SAFETY
SPECIFICATIONS
FOR**

**INVITATION TO SUBMIT FORMAL WRITTEN PRICE
QUOTATION FOR SUPPLY, DELIVER, INSTALL AND
COMMISSION A BLAST FREEZER, FREEZER STORAGE ROOM
AND AN ICE ROOM for TABLE MOUNTAIN NATIONAL PARK -
SANParks**

CONTRACT NO: TMNP210/2025-26

Date: January 2026

Contact person: Zamakhosi Mkhonza

**Address: PO Box 787
Pretoria, 0001**

Tel No: (012) 426 5199

Email Fax: 086 695 9139

Email: zamakhosi.mkhonza@sanparks.org

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1. PURPOSE OF THE HEALTH AND SAFETY SPECIFICATION

This Health and Safety Specification has been prepared to comply with the requirements of the Construction Regulations 2014.

The purpose of this site specific Health and Safety Specification is to comply with legal requirements and to provide health and safety information about specific project risks known by the Client, Designer and Client Agent to be applicable to this project. This document also provides minimum health and safety requirements, standards and expectations that the principal contractor and contractors must adhere to.

The Contractor must take into account all information in this specification and ensure that their tenders include adequate resource and competence to deal with the matters detailed herein so that all relevant contents are dealt with in a way which is in compliance with legislation and the ethical concerns for the safeguarding of employees, contractors and other persons affected by the construction activities.

The Health and Safety Specification will be implemented during construction of the works and any construction activity that the Client has control over.

This will also assist in ensuring that all the costs related to the compliance with Occupational Health Act 85 of 1993 and the Construction Regulations 2014, as well as this Health and Safety Specification, are taken into consideration at Tender stage.

No advice, approval of any document required by the Health and Safety Specification such as hazard identification and risk assessment action plans or any other form shall be construed as an acceptance by the Client of any obligation that absolves the Contractor from achieving the required level of performance and compliance with legal requirements.

Further, there is no acceptance of liability by the Client which may result from the Contractor failing to comply with the Health and Safety Specification unless the Client has issued an instruction to any requirement, i.e. the Contractor remains responsible for achieving the required performance levels.

2. IMPLEMENTATION OF THE HEALTH AND SAFETY SPECIFICATION

This Health and Safety Specification forms an integral part of the Contract, and Contractors shall make it an integral part of their Contracts with Sub Contractors and Suppliers. Contractors employed by the Client are to ensure that the provisions of the Health and Safety Specification are applied both on the site and in respect of all off site activities relating to the project, in particular in transport activities and project dedicated off site fabrication works.

The Contractor shall enforce the provisions of the Health and Safety Specification amongst all sub-contractors and suppliers for the project.

The Contractor shall sign the acknowledgment on the last page of this safety specification that he/she has familiarized him/herself with the content of the Health and Safety Specification and shall comply with all obligations in respect thereof.

The successful Contractor will be required to compile a Health and Safety Plan based on the requirements of the Occupational Health Act 85 of 1993 and these Specifications, which will need to be approved by Client prior to commencement with construction work.

3. APPLICATION AND INTERPRETATION

This document is to be read and understood in Conjunction with the following inter alia:

- Occupational Health and Safety Act (Act 85 of 1993)
- SABS codes and standards referred to by the Occupational Health and Safety Act
- Regulations as per the Occupational Health and Safety Act (Act 85 of 1993) with specific reference but not limited to:
 - General Safety Regulations (GN 928, 25 June 2003)
 - General Machinery Regulations (GN R1521, 5 August 1988)
 - Electrical Machinery Regulations (GN R250, 25 March 2011)
 - Electrical Installation Regulations (GN R242, 6 March 2009)
 - Driven Machinery Regulations (GN R1010, 18 July 2003)
 - Hazardous Chemical Substance Regulations (GN R930, 25 June 2003)
 - Hazardous Biological Agents Regulations (GN R 1390, 27 December 2001)
- Basic Conditions of Employment Act (Act 75 of 1997)
- SANParks Environmental Management Plan
- SANParks Code of Conduct of working in a National Park

4. DEFINITIONS

ALL REFERENCES TO CLIENT IN THIS HEALTH AND SAFETY SPECIFICATION ALSO REFER TO CLIENT AGENT, WHERE SO APPOINTED.

Definitions (as per the Construction Regulations 2014) applicable to this Health and Safety Specification:

"agent" means a competent person who acts as a representative for a client;

"angle of repose" means the steepest angle of a surface at which a mass of loose or fragmented material will remain stationary in a pile on the surface, rather than sliding or crumbling away;

"bulk mixing plant" means machinery, appliances or other similar devices that are assembled in such a manner so as to be able to mix materials in bulk for the purposes of using the mixed product for construction work;

"client" means any person for whom construction work is being performed;

"competent person" means a person who has, in respect of the work or task to be performed, the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where 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; and is familiar with the Act and with the applicable regulations made under the Act;

"construction manager" means a competent person responsible for the management of the physical construction processes and the coordination, administration and management of resources on a construction site;

"construction site" means a work place where construction work is being performed;

"construction supervisor" means a competent person responsible for supervising construction activities on a construction site;

"construction vehicle" means a vehicle used as a means of conveyance for transporting persons or material, or persons and material, on and off the construction site for the purposes of performing construction work;

"construction work" means any work in connection with-

- the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure; or
- the construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work ;

"construction work permit" means a document issued in terms of regulation 3;

"contractor" means an employer who performs construction work;

"demolition work" means a method to dismantle, wreck, break, pull down or knock down of a structure or part thereof by way of manual labour, machinery, or the use of explosives;

"design" in relation to any structure, includes drawings, calculations, design details and specifications ;

"designer" means a competent person who-

- prepares a design;
- checks and approves a design;
- arranges for a person at work under his or her control to prepare a design, including

- an employee of that person where he or she is the employer; or
- designs temporary work, including its components;
- an architect or engineer contributing to, or having overall responsibility for a design;
- a building services engineer designing details for fixed plant;
- a surveyor specifying articles or drawing up specifications;
- a contractor carrying out design work as part of a design and building project; or
- an interior designer, shop-fitter or landscape architect;

"excavation work" means the making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping;

"explosive actuated fastening device" means a tool that is activated by an explosive charge and that is used for driving bolts, nails and similar objects for the purpose of providing fixing;

"fall arrest equipment" means equipment used to arrest a person in a fall, including personal equipment, a body harness, lanyards, deceleration devices, lifelines or similar equipment;

"fall prevention equipment" means equipment used to prevent persons from falling from a fall risk position, including personal equipment, a body harness, lanyards, lifelines or physical equipment such as guard-rails, screens, barricades, anchorages or similar equipment;

"fall protection plan" means a documented plan, which includes and provides for -

- all risks relating to working from a fall risk position, considering the nature of work undertaken;
- the procedures and methods to be applied in order to eliminate the risk of falling; and
- a rescue plan and procedures;

"fall risk" means any potential exposure to falling either from, off or into;

"health and safety file " means a file, or other record containing the information in writing required by these Regulations;

"health and safety plan" means a site, activity or project specific documented plan in accordance with the client's health and safety specification;

"health and safety specification" means a site, activity or project specific document prepared by the client pertaining to all health and safety requirements related to construction work;

"material hoist" means a hoist used to lower or raise material and equipment, excluding passengers;

"medical certificate of fitness" means a certificate contemplated in regulation 7(8);

"mobile plant" means any machinery, appliance or other similar device that is able to move independently, and is used for the purpose of performing construction work on a construction site;

"National Building Regulations" means the National Building Regulations made under the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), and promulgated by Government Notice No. R. 2378 of 30 July 1990, as amended by Government Notices No's R. 432 of 8 March 1991, R. 919 of 30 July 1999 and R. 547 of 30 May 2008;

"person day" means one normal working shift of carrying out construction work by a person on a construction site;

"principal contractor" means an employer appointed by the client to perform construction work;

"Professional Engineer or Professional Certificated Engineer" means a person holding registration as either a Professional Engineer or Professional Certificated Engineer in terms of the Engineering Profession Act, 2000 (Act No. 46 of 2000);

"Professional Technologist" means a person holding registration as a Professional Engineering Technologist in terms of the Engineering Profession Act, 2000;

"provincial director" means the provincial director as defined in regulation 1 of the General Administrative Regulations, 2003;

"scaffold" means a temporary elevated platform and supporting structure used for providing access to and supporting workmen or materials or both;

"shoring" means a system used to support the sides of an excavation and which is intended to prevent the cave-in or the collapse of the sides of an excavation;

"structure" means-

- any building, steel or reinforced concrete structure (not being a building), railway line or siding, bridge, waterworks, reservoir, pipe or pipeline, cable, sewer, sewage works, fixed vessels, road, drainage works, earthworks, dam, wall, mast, tower, tower crane, bulk mixing plant, pylon, surface and underground tanks, earth retaining structure or any structure designed to preserve or alter any natural feature, and any other similar structure;
- any falsework, scaffold or other structure designed or used to provide support or means of access during construction work; or
- any fixed plant in respect of construction work which includes installation, commissioning, decommissioning or dismantling and where any construction work involves a risk of a person falling;

"suspended platform" means a working platform suspended from supports by means of one or more separate ropes from each support ;

"temporary works" means any falsework, formwork, support work, scaffold, shoring or other temporary structure designed to provide support or means of access during construction work;

"the Act" means the Occupational Health and Safety Act , 1993 (Act No. 85 of 1993);

"tunneling" means the construction of any tunnel beneath the natural surface of the earth for a purpose other than the searching for or winning of a mineral.

5. GENERAL REQUIREMENTS

5.1 Duties of Principal Contractor / Contractor in terms of Construction Regulations 2014

A Principal Contractor must:

- 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, 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;
- 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 made available on request to an inspector, the client, the client's agent or a contractor; and
- on appointing any other contractor, in order to ensure compliance with the provisions of the Act –
 - provide contractors who are tendering to perform construction work for the principal contractor, with the relevant sections of the health and safety specifications pertaining to the construction work which has to be performed;
 - ensure that potential contractors submitting tenders have made sufficient provision for health and safety measures during the construction process;
 - ensure that no contractor is appointed to perform construction work unless the principal contractor is reasonably satisfied that the contractor that he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely;
 - ensure prior to work commencing on the site that every contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993;
 - appoint each contractor in writing for the part of the project on the construction site
 - take reasonable steps to ensure that each contractor's health and safety plan is implemented and maintained on the construction site;
 - ensure that the periodic site audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days;
 - stop any contractor from executing construction work which is not in accordance with the client's health and safety specifications and the principal contractor's health and safety plan for the site or which

- poses a threat to the health and safety of persons;
- where changes are brought about to the design and construction, make available sufficient health and safety information and appropriate resources to the contractor to execute the work safely;
- discuss and negotiate with the contractor the contents of their health and safety plan and finally approve that plan for implementation;
- ensure that a copy of both the principal contractor and contractor's health and safety plan is available on request to an employee, an inspector, a contractor, the client or the client's agent;
- hand over a consolidated health and safety file to the client upon completion of the construction work, to include a record of all drawings, designs, materials used and other similar information concerning the completed structure;
- in addition to the documentation required in the health and safety file include and make available a comprehensive and updated list of all the contractors on site accountable to the principal contractor, the agreements between the parties and the type of work being done;
- ensure that all his or her 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.

A contractor must prior to performing any construction work-

- provide and demonstrate to the principal contractor a suitable and sufficiently documented health and safety plan, based on the relevant sections of the client's health and safety specification and provided by the principal contractor, 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 contractor as work progresses;
- open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, and which must be made available on request to an inspector, the client, the client's agent or the principal contractor;
- before appointing another contractor to perform construction work be reasonably satisfied that the contractor that he or she intends to appoint has the necessary competencies and resources to perform the construction work safely;
- co-operate with the principal contractor as far as is necessary to enable each of them to comply with the provisions of the Act;
- as far as is reasonably practicable, promptly provide the principal contractor with any information which might affect the health and safety of any person at work carrying out construction work on the site, any person who might be affected by the work of such a person at work, or which might justify a review of the health and safety plan.

Where a contractor appoints another contractor to perform construction work, the duties that apply to the principal contractor will apply to the contractor as if he or she were the principal contractor.

A principal contractor must take reasonable steps to ensure co-operation between all contractors appointed by the principal contractor to enable each of those contractors to comply with these Regulations.

No contractor may allow or permit any employee or person to enter any site, unless that employee or person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.

A contractor must ensure that all visitors to a construction site undergo health and safety induction pertaining to the hazards prevalent on the site and must ensure that such visitors have the necessary personal protective equipment.

A contractor must at all times keep on his or her construction site records of the health and safety induction training and such records must be made available on request to an inspector, the client, the client's agent or the principal contractor.

A contractor must ensure that all his or her 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 (a template of which can be found in the Construction Regulations, 2014).

5.2 Management and Supervision of Construction Work

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 by the principal contractor.

A principal contractor must upon having considered the size of the project, in writing appoint one or more assistant construction managers for different sections thereof: Provided that the designation of any such person does not relieve the construction manager of any personal accountability for failing in his or her management duties in terms of this regulation.

Where the construction manager has not appointed assistant construction managers, or, in the opinion of an inspector, a sufficient number of such assistant construction managers have not been appointed, that inspector must direct the construction manager in writing to appoint the number of assistant construction managers indicated by the inspector, and those assistant construction managers must be regarded as having been appointed.

No construction manager appointed in terms of the Regulations 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.

A contractor must, after consultation with the client and having considered the size of the project, the degree of danger likely to be encountered or the accumulation of hazards or risks on the site, appoint a full-time or part-time construction health and safety officer in writing to

assist in the control of all health and safety related aspects on the site: Provided that, where the question arises as to whether a construction health and safety officer is necessary, the decision of an inspector is decisive.

No contractor may appoint a construction health and safety officer to assist in the control of health and safety related aspects on the site unless he or she is reasonably satisfied that the construction health and safety officer that he or she intends to appoint is registered with a statutory body approved by the Chief Inspector and has necessary competencies and resources to assist the contractor

A construction manager must in writing appoint construction supervisors responsible for construction activities and ensuring occupational health and safety compliance on the construction site.

A contractor must, upon having considered the size of the project, in writing appoint one or more competent employees for different sections thereof to assist the construction supervisor, and every such employee has, to the extent clearly defined by the contractor in the letter of appointment, the same duties as the construction supervisor: Provided that the designation of such employee does not relieve the construction supervisor of any personal accountability for failing in his or her supervisory duties.

Where the contractor has not appointed such an employee, or, in the opinion of an inspector, a sufficient number of such employees have not been appointed, that inspector must instruct the employer to appoint the number of employees indicated by the inspector.

No construction supervisor appointed may supervise any construction work on or in any construction site other than the site in respect of which he or she has been appointed: Provided that if a sufficient number of competent employees have been appropriately designated on all the relevant construction sites, the appointed construction supervisor may supervise more than one site.

5.3 Notification of Intention to Commence Construction Work

The Contractor shall notify the Provincial Director of the Department of Labour of the intention to commence construction work at least 7 days prior to the works commencing if the intended construction work will:

- include excavation work
- Include work at height where there is a risk of falling
- Include the demolition of a structure, or
- Include the use of explosives to perform construction work.

If the construction work involves construction of a single storey dwelling for a client, and such client will be residing in such dwelling upon completion, the contractor must also notify the Provincial Director of the Department of Labour at least 7 days before the works commence.

This must be done on a form similar to an Annexure 2 (template of which can be found in the Construction Regulations, 2014). A copy of the notification letter to the Provincial Director shall be forwarded to the Client for record purposes.

5.4 Construction Work Permit

It must be noted that from August 2015 all projects that meet the following criteria will require a construction work permit to be applied for at least 30 days prior to the work being carried out:

- Exceeds 180 days
- Will involve more than 1800 person days of construction work
- Works contract is of a value equal to or exceeding thirteen million rand, or Construction Industry Grading Board (CIDB) grading level 6

It is the client's responsibility to apply for this permit from the Provincial Director and construction work may not commence until the permit has been issued by the Provincial Director.

A copy of this permit will be required to be kept in the principal contractors safety file, and the site specific number issued by the Provincial Director must be displayed at the site entrance.

5.5 Assignment of Contractor's Responsible Persons to Manage Health and Safety on Site

The Contractor shall submit management and supervisory appointments as well as any relevant appointments in writing (as stipulated by the Construction Regulations 2014 and the Occupational Safety and Health Act 1993), prior to commencement of work (refer to **Annexure B** at the end of this Health and Safety Specification).

5.6 Competency for Contractor's Responsible Persons

The Contractor's responsible persons shall be competent in health and safety and be familiar with the Occupational Health and Safety Act 1993, and applicable regulations. Valid proof of pertinent health and safety courses attended by such persons will be required to be presented to the Client.

5.7 Compensation of Occupational Injuries and Diseases Act 130 of 1993 (COIDA)

The successful Contractor shall submit to the Client a valid letter of good standing with the Compensation Insurer prior to appointment.

5.8 Occupational Health and Safety Policy

The Contractor shall submit their Health and Safety Policy, prior to construction commencement, signed by the Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented within the operations.

5.9 Health and Safety Organogram

The Contractor shall submit an organogram, prior to construction commencement, outlining the Health and Safety Site Team that will be assigned to the project, if successful with the tender. In cases where appointments have not been made, the organogram shall reflect the position. The organogram shall be updated, when there is a change in the site team.

5.10 Risk Assessments

Baseline Risk Assessment

The Client shall cause a baseline risk assessment to be conducted by a competent person before the design process and tender process commence, and the assessed risks shall form part of the health and safety specifications.

The Contractor must, before commencement of any construction work, and during 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 the site and must include:

- The identification of the risks and hazards to which persons may be exposed to;
- An analysis and evaluation of the risks and hazards identified; based on a documented method
- A documented plan and applicable safe work procedures to mitigate, reduce or control the risks and hazards that have been identified;
- A monitoring plan; and
- A review plan

The Contractor must ensure that, as far as is reasonably practicable, ergonomic related hazards are analysed, evaluated and addressed in a risk assessment.

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

The Principal Contractor must ensure that all contractors are informed regarding any hazard that is stipulated in the risk assessment **before any work commences** and thereafter **at the times determined in the risk assessment monitoring and review plan of the relevant site.**

The Contractor must consult with the health and safety committee or with a representative trade union or representative group of employees if no health and safety committee exists, on the monitoring and review of the risk assessments for the site.

The Contractor must ensure that copies of risk assessment for this site are available on site for inspection purposes by interested parties (inspector, the client, client's agent, any contractor, any employee, a representative trade union, a health and safety representative or safety committee member.

A Contractor must review the relevant risk assessment where changes are effected to the design and/or construction that result in a change to the risk profile, or when an incident has occurred.

Preventative measures must first address the elimination of the hazard or risk. Should PPE be required to reduce risk, the equipment or clothing to be used must be SABS approved

In general the Contractor must ensure that the Risk Assessment involves identifying the hazards present in a work activity on site. This is followed by an evaluation of the extent of the risk involved taking into account those precautions already being taken.

The following general principle should be followed when conducting a risk assessment:

- All relevant risks and/or hazards should be systematically addressed;
- The risk assessment should address what actually happens in the workplace during the work activity;
- All employees and those who may be affected must be considered, including maintenance staff, security guards, visitors and subcontractors;
- The risk assessment should highlight those groups and individuals who may be required to work alone or who have disabilities;
- The risk assessment process should take into account the existing safety measures and controls.
- The level of detail on a risk assessment should be appropriate to the level of risk.

5.11 Safe Work Procedures

Safe Work Procedures are to form part of the H&S Plan and **must be compiled for all the identified activities.**

The safe work procedures must address the following elements:

- The work method to be followed to conduct work safely
- Mitigation of identified risks
- Reducing and controlling risks and hazards that have been identified
- Responsibilities of competent persons
- Required personal protective equipment
- Correct equipment/tools/machinery to be used
- Reference to relevant registers to be completed
- Reference to applicable risk assessment

5.12 Health and Safety Representative(s)

The Contractor shall ensure that Health and Safety Representative(s) is/are elected and trained to carry out his / her functions. The appointment must be in writing. The Health and Safety Representative shall carry out regular inspections, keep records and report to the supervisor to take appropriate action. He / she shall attend Health and Safety Committee

Meetings. The Health and Safety Representative shall be part of the team that will investigate incidents, accidents and non-conformances.

5.13 Health and Safety Committee

Where two or more health and safety representatives have been appointed on site, the Contractor shall ensure that monthly health and safety meetings are held with such representatives and minutes are kept on record. Meetings must be organized and chaired by the Contractor's Health and Safety Committee Chairperson. Minutes of these meetings must be available for the employees of the contractor to refer to.

5.14 Medical Certificate of Fitness

The contractor must ensure that their employees on site have a valid medical certificate of fitness, specific to the construction work being performed, issued by an occupational health practitioner in the form of an Annexure 3 template (refer to the Construction Regulations 2014 on the Department of Labour website for a sample of this form).

5.15 Health and Safety Training

The Contractor shall quarterly conduct a training needs analysis to ascertain what health and safety training is required. A plan of action should be devised and forwarded to the Client for records. Once the identified people have attended the training, the Contractor must provide the Client with copies of certificates obtained.

5.15.1 Induction

No Contractor may allow or permit any employee or person to enter site unless they have undergone health and safety induction training pertaining to the hazards prevalent on site at the time of entry. This includes visitors to site. The Contractor must ensure that visitors to site have the necessary protective equipment (PPE). A copy of attendance registers of all employees who attend inductions shall be kept.

5.15.2 Awareness

The Contractor shall conduct periodic toolbox talks on site, preferably weekly or before any hazardous work takes place. The talks shall cover the relevant activity and an attendance register must be signed by all attendees. This record of who attended and the content of the topic will be kept on the site health and safety file as evidence of training

5.16 Competency

After the Contractor has identified the training to be conducted as part of the competency requirement, and based on Risk Assessment, he shall send the relevant persons on

appropriate courses and keep certificates of training for reference. Familiarity with the Health and Safety Act and Regulations is an integral part of the definition of competence.

5.17 General Record Keeping

The Contractor shall keep and maintain Health and Safety records to demonstrate compliance with the Health and Safety Specification and the Occupational Health and Safety Act. The contractor shall ensure that all records of incidents, spot fines, training etc. are kept on site. All documents shall be available for inspection by the Client, or the Department of Labour's Inspectors.

5.18 General Inspection, Monitoring and Reporting

The Contractor shall carry out inspections as required by **Annexure C** in this Health and Safety Specification, as well as by health and safety legislation.

5.19 Emergency Procedures

The Contractor shall submit a detailed Emergency Procedure for approval by the Client prior to commencement on site. The procedure shall detail the response plan including the following:

- List of key personnel;
- Details of emergency services;
- Actions or steps to be taken in the event of the emergency; and
- Information on hazardous materials / situations, including each material's hazardous potential impact or risk on the environment or human and measures to be taken in the event of an accident.

Emergency procedure(s) shall include, but shall not be limited to, fire, spills, accidents to employees, use of hazardous substances, dangers as a result of riot / service deliver protests / intimidation, etc. The Contractor shall advise the Client in writing of any on-site emergencies, together with a record of action taken, within 24 hours of the emergency occurring. A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc.) must be maintained and available to site personnel.

5.20 First Aid Box and First Aid Equipment

The Contractor shall provide first aid box/es and appoint, in writing, First Aider(s) for this project in line with the results of the Contractor's risk assessment for the project, this health and safety specification as well as the provisions of the General Safety Regulations. The appointed First Aider(s) are to be sent for accredited first aid training before starting on site. Valid certificates are to be kept on site.

First Aid box/es must be adequately stocked at all time, accessible and be controlled by a qualified First Aider. If required by the Client, the Contractor shall have a stretcher on site to be used in case of a serious incident.

5.21 Accident / Incident Reporting and Investigation

The Contractor shall, in addition to the prescribed requirements of the Occupational Health and Safety Act and General Safety Regulations, investigate, record and report all Section 24 reportable incidents to the Client within 24 hours of the incident occurring. Incident investigations shall be conducted by the Contractor's appointed Accident Investigator – this Investigator must be a competent person or persons who have sufficient knowledge to carry out an investigation.

In the event of a fatality or a permanent disabling injury the Contractor must submit proof of reporting of incident to Department of Labour as well as proof of preventative measures to the Client. The Client reserves the right to conduct investigations into any incidents that they deem fit and the Contractor is required to provide full co-operation in this regard.

5.22 Hazards and Potential Situations

The Contractor shall immediately notify other Contractors, Department of Labour etc. of any hazardous or potentially hazardous situations, which may arise during performance of the activities.

The project includes removal of hazardous materials which is the Asbestos Roof Sheets therefore the following items are required:

- Proof of valid and active registration with the Department of Employment and Labour as a Registered Asbestos Contractor for at least type 2 asbestos work.
- Proof of registration as a hazardous waste transporter with the relevant local authorities.
- Proof of registration/permit to dispose hazardous waste at a registered hazardous waste disposal site at all applicable CSIR sites.

5.23 Occupational Health and Safety Signage

The Contractor shall ascertain and provide adequate on site health and safety signage. This signage shall include, but shall not be limited to, Hard Hat / Helmet Area; Safety Shoes to be worn on site; Dust Masks to be worn in areas where there might be exposure to excessive dust; Ear Plugs / Muffs to be worn where there might be noise exposure over 85; Gloves; Safety Goggles; Safety Harness, Workers in Excavation, traffic management, etc. The Contractor shall be responsible to maintain the quality and replacement of signage.

5.24 Management of Contractors by Principal Contractor

The Principal Contractor shall ensure that all contractors under his control are complying with the respective Health and Safety Plans, as well as Health and Safety Legislation.

5.25 Stacking of Materials

In addition to the provisions for the stacking of articles in the General Safety Regulations, 2003, the contractor must 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.

5.26 Housekeeping and General Safeguarding on Construction Sites

A 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 the regulations;
- 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; and
- 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 of possibility of persons being struck by falling objects.

5.27 Construction Vehicles and Mobile Plant

A contractor must ensure that all construction vehicles and mobile plant-

- are of an acceptable design and construction;
- are maintained in a good working order;
- are used in accordance with their design and the intention for which they were designed, having due regard to safety and health;
- are operated by a person who-
- has received appropriate training, is certified competent and in possession of proof of competency and is authorised in writing to operate those construction vehicles and mobile plant;
- has a medical certificate of fitness to operate those construction vehicles and mobile plant, issued by an occupational health practitioner in the form of Annexure 3.
- have safe and suitable means of access and egress;
- are properly organized and controlled in any work situation by providing adequate signalling or other control arrangements to guard against the dangers relating to the movement of vehicles and plant, in order to ensure their continued safe operation;
- are prevented from falling into excavations, water or any other area lower than the working surface by installing adequate edge protection, which may include guard-

- rails and crash barriers;
- are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn;
- are equipped with an acoustic warning device which can be activated by the operator;
- are equipped with an automatic acoustic reversing alarm; and
- are inspected by the authorised operator or driver on a daily basis using a relevant checklist prior to use and that the findings of such inspection are recorded in a register kept in the construction vehicle or mobile plant.

A contractor must ensure that-

- no person rides or is required or permitted to ride on a construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose;
- every construction site is organized in such a way that, as far as is reasonably practicable, pedestrians and vehicles can move safely and without risks to health;
- the traffic routes are suitable for the persons, construction vehicles or mobile plant using them, are sufficient in number, in suitable positions and of sufficient size;
- every traffic route is, where necessary, indicated by suitable signs;
- all construction vehicles and mobile plant left unattended at night, adjacent to a public road in normal use or adjacent to construction areas where work is in progress, have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of the vehicles or plant;
- all construction vehicles or mobile plant when not in use, have buckets, booms or similar appendages, fully lowered or blocked, controls in a neutral position, motors stopped, wheels chocked, brakes set and ignition secured;
- whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation;
- tools, material and equipment are secured and separated by means of a physical barrier in order to prevent movement when transported in the same compartment with employees;
- vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried; and
- all construction vehicles or mobile plant travelling, working or operating on public roads comply with the requirements of the National Road Traffic Act, 1996.

5.28 Electrical Installations and Machinery on Construction Sites

A contractor must, in addition to compliance with the Electrical Installation Regulations and the Electrical Machinery Regulations, 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;
- the control of all temporary electrical installations on the construction site is designated to a competent person who has been appointed in writing for that purpose;

- all temporary electrical installations used by the contractor are inspected at least once a week by a competent person and the inspection findings are recorded in a register kept on the construction site; and
- all electrical machinery is inspected by the authorized operator or user on a daily basis using a relevant checklist prior to use and the inspection findings are recorded in a register kept on the construction site.

5.29 Use and Temporary Storage of Flammable Liquids on Construction Sites

A contractor must, in addition to compliance with the provisions for the use and storage of flammable liquids in the General Safety Regulations, 2003, ensure that –

- where flammable liquids are being used, applied or stored at the workplace concerned, it is done in a manner that does not cause a fire or explosion hazard, and that the workplace is effectively ventilated;
- no person smokes in any place in which flammable liquid is used or stored, and the contractor must affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking;
- an adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs;
- only the quantity of flammable liquid needed for work on one day is taken out of the store for use;
- all containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, are removed from the construction site and safely disposed of;
- where flammable liquids are decanted, the metal containers are bonded and earthed; and
- no flammable material, including cotton waste, paper, cleaning rags or similar material is stored together with flammable liquids

5.30 Water environments

Not applicable on this project..

5.31 Fire precautions on Construction Sites

A 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, vapours 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;
- suitable and sufficient fire-extinguishing equipment is placed at strategic locations or as may be recommended by the Fire Chief or local authority concerned, and that such equipment is maintained in a good working order;
- the fire equipment contemplated above is inspected by a competent person, who has been appointed in writing for that purpose, in the manner indicated by the manufacturer thereof;
- a sufficient number of workers are trained in the use of fire- extinguishing equipment;
- where appropriate, suitable visual signs are provided to clearly indicate the escape routes in the case of a fire;
- the means of escape is kept clear at all times;
- there is an effective evacuation plan providing for all -
 - persons to be evacuated speedily without panic;
 - persons to be accounted for; and
 - plant and processes to be shut down; and
 - a siren is installed and sounded in the event of a fire.

5.32 Construction Employees' Facilities

A contractor must, in terms of the Construction Regulations 2014, provide:

- Shower facilities after consultation with the employees or employees representatives, or at least one shower facility for every 15 persons;
- at least one sanitary facility for each sex and for every 30 workers;
- changing facilities for each sex;
- and sheltered eating area.

A contractor must provide reasonable and suitable living accommodation for the workers at construction sites who are far removed from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

5.33 Fall protection

The Contractor must:

- designate a competent person to be responsible for the preparation of a fall protection plan
- ensure that the fall protection plan contemplated above is implemented, amended where and when necessary and maintained as required; and
- take steps to ensure continued adherence to the fall protection plan.

A fall protection plan contemplated above must include-

- a risk assessment of all work carried out from a fall risk position and the

- procedures and methods used to address all the risks identified per location;
- the processes for the evaluation of the employees' medical fitness necessary to work at a fall risk position and the records thereof;
- a programme for the training of employees working from a fall risk position and the records thereof;
- the procedure addressing the inspection, testing and maintenance of all fall protection equipment; and
- a rescue plan detailing the necessary procedure, personnel and suitable equipment required to affect a rescue of a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following the incident.

A contractor must ensure that a construction manager appointed under regulation 8(1) is in possession of the most recently updated version of the fall protection plan.

A contractor must ensure that all unprotected openings in floors, edges, slabs, hatchways and stairways are adequately guarded, fenced or barricaded or that similar means are used to safeguard any person from falling through such openings;

Also that no person is required to work in a fall risk position, unless such work is performed safely as contemplated in above and fall prevention and fall arrest equipment are approved as suitable and of sufficient strength for the purpose for which they are being used, having regard to the work being carried out and the load, including any person, they are intended to bear; and securely attached to a structure or plant, and the structure of plant and the means of attachment thereto are suitable and of sufficient strength and stability for the purpose of safely supporting the equipment and person who could fall, and fall arrest equipment is used only where it is not reasonably practicable to use fall prevention equipment.

5.34 Temporary works

A contractor must appoint a temporary works designer in writing to design, inspect and approve the erected temporary works on site before use.

A contractor must ensure that all temporary works operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose.

A contractor must ensure that-

- all temporary works structures are adequately erected, supported, braced and maintained by a competent person so that they are capable of supporting all anticipated vertical and lateral loads that may be applied to them, and that no loads are imposed onto the structure that the structure is not designed to withstand;
- all temporary works structures are done with close reference to the structural design drawings, and where any uncertainty exists the structural designer should be consulted;
- detailed activity specific drawings pertaining to the design of temporary works structures are kept on the site and are available on request to an inspector, other contractors, the client, the client's agent or any employee;
- all persons required to erect, move or dismantle temporary works structures are provided with adequate training and instruction to perform those operations safely;

- all equipment used in temporary works structure are carefully examined and checked for suitability by a competent person, before being used;
- all temporary works structures are inspected by a competent person immediately before, during and after the placement of concrete, after inclement weather or any other imposed load and at least on a daily basis until the temporary works structure has been removed and the results have been recorded in a register and made available on site;
- no person may cast concrete, until authorization in writing has been given by the competent person contemplated above;
- if, after erection, any temporary works structure is found to be damaged or weakened to such a degree that its integrity is affected, it is safely removed or reinforced immediately;
- adequate precautionary measures are taken in order to-
 - secure any deck panels against displacement; and
 - prevent any person from slipping on temporary works due to the application of release agents;
- as far as is reasonably practicable, the health of any person is not affected through the use of solvents or oils or any other similar substances;
- upon casting concrete, the temporary works structure is left in place until the concrete has acquired sufficient strength to safely support its own weight and any imposed load, and is not removed until authorization in writing has been given by the competent person
- the foundation conditions are suitable to withstand the loads caused by the temporary works structure and any imposed load in accordance with the temporary works design.
- provision is made for safe access by means of secured ladders or staircases for all work to be carried out above the foundation bearing level;
- a temporary works drawing or any other relevant document includes construction sequences and methods statement;
- the temporary works designer has been issued with the latest revision of any relevant structural design drawing;
- a temporary works design and drawing is used only for its intended purpose and for a specific portion of a construction site; and
- the temporary works drawings are approved by the temporary works designer before the erection of any temporary works.

No contractor may use a temporary works design and drawing for any work other than its intended purpose.

5.35 Excavation

A contractor must-

- ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing for that purpose; and
- Evaluate, as far as is reasonably practicable, the stability of the ground before excavation work begins.

A 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-
- the sides of the excavation are sloped to at least the maximum angle of repose measured relative to the horizontal plane; or
- such an excavation is in stable material: Provided that-
- permission has been given in writing by the appointed competent person contemplated above upon evaluation by him or her of the site conditions; and
- where any uncertainty pertaining to the stability of the soil still exists, the decision from a professional engineer or a professional technologist competent in excavations is decisive and such a decision must be noted in writing and signed by both the competent person and the professional engineer or technologist, as the case may be;
- must take steps to ensure that the shoring or bracing contemplated above is designed and constructed in a manner that renders it strong enough to support the sides of the excavation in question;
- must ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it may cause its collapse and consequently endangers the safety of any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing;
- must ensure that where the stability of an adjoining building, structure or road is likely to be affected by the making of an excavation, steps are taken to ensure the stability of such building, structure or road and the safety of persons;
- must cause convenient and safe means of access to be provided to every excavation in which persons are required to work, and such access may not be further than six meters from the point where any worker within the excavation is working;
- must ascertain, as far as is reasonably practicable, the location and nature of electricity, water, gas or other similar services which may in any way be affected by the work to be performed, and must before the commencement of excavation work that may affect any such service, take the steps that are necessary to render the circumstances safe for all persons involved;
 - must ensure that every excavation, including all bracing and shoring, is inspected-
 - daily, prior to the commencement of each shift;
 - after every blasting operation;
 - after an unexpected fall of ground;
 - after damage to supports; and
 - after rain,

by the competent person, in order to ensure the safety of the excavation and of persons, and those results must be recorded in a register kept on site and made available on request to an inspector, the client, the client's agent, any other contractor or any employee;

- must cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be –
 - adequately protected by a barrier or fence of at least one metre in height and as close to the excavation as is practicable; and
 - provided with warning illuminates or any other clearly visible boundary indicators at night or when visibility is poor, or have resort to any other suitable and sufficient precautionary measure where this is not practicable;
- must ensure that all precautionary measures stipulated for confined spaces as determined in the General Safety Regulations, 2003, are complied with by any person entering any excavation;
- must, where the excavation work involves the use of explosives, appoint a competent person in the use of explosives for excavation, and must ensure that a method statement is developed by that person in accordance with the applicable explosives legislation; and
- must cause warning signs to be positioned next to an excavation within which or where persons are working or carrying out inspections or tests.

5.36 Demolition Work

Not applicable on this project.

5.37 Tunnelling

Not applicable on this project.

5.38 Scaffolding

A contractor must appoint a competent person in writing who must ensure that all scaffolding work operations are carried out under his or her supervision and that all scaffold erectors, team leaders and inspectors are competent to carry out their work.

A contractor using access scaffolding must ensure that such scaffolding, when in use, complies with the safety standards incorporated for this purpose into these Regulations under section 44 of the Act.

5.39 Bulk mixing plant

A contractor must ensure that the operation of a bulk mixing plant is 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.

A 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.

A contractor must ensure that all devices to start and stop a bulk mixing plant are provided and that those devices are placed in an easily accessible position and constructed in a manner to prevent accidental starting.

A contractor must ensure that the machinery and plant selected is suitable for the mixing task and that all dangerous moving parts of a mixer are placed beyond the reach of persons by means of doors, covers or other similar means.

No person may remove or modify any guard or safety equipment relating to a bulk mixing plant, unless authorized to do so by the appointed person.

A contractor must ensure that all precautionary measures stipulated for confined spaces as determined in the General Safety Regulations, 2003, are complied with when entering any silo.

A contractor must ensure that a record is kept of all repairs or maintenance to a bulk mixing plant and that the record is available on site to an inspector, the client, the client's agent or any employee.

5.40 Rope Access Work

Not applicable on this project.

5.41 Hazardous Chemical Substances (HCS)

In addition to the requirements in the HCS Regulations, the principal contractor must provide proof in the Health and Safety Plan that:

- Material Safety Data Sheets (MSDS's) of the relevant materials / hazardous chemical substances are available prior to use by the contractor. All MSDS's shall be available for inspection by the agent at all times.
- Risk assessments are done at least once every 6 months.
- Exposure monitoring is done according to OESSM and by an Approved Inspection Authority (AIA) and that the medical surveillance programme is based on the outcomes of the exposure monitoring.
- How the relevant HCS's are being/going to be controlled by referring to:
 - Limiting the amount of HCS
 - Limiting the number of employees
 - Limiting the period of exposure
 - Substituting the HCS
 - Using engineering controls
 - Using appropriate written work procedures
- The correct PPE is being used.

- HCS are stored and transported according to SABS 072 and 0228.
- Training with regards to these regulations was given.

The Health and Safety plan should make reference to the disposal of hazardous waste on classified sites and the location thereof (where applicable).

The First Aider must be made aware of the MSDS and trained in how to treat HCS incidents appropriately.

5.42 Hazardous Biological Substances (HBS)

Because of the possible exposure of workers to raw sewage the H&S Plan shall include details of the following:

- The conducting of Risk Assessment specifically aimed at exposure to HBA which shall include the following
 - Nature and dose of HBA
 - Where HBA may be present and in what physical form
 - The nature of work or process
 - Steps in the event of failure of control measures
 - The effect of the HBA
 - The period of exposure
 - Control measures to be implemented
- Monitoring of exposure of workers shall be conducted to establish whether any worker is infected with an HBA associated with working or being exposed to raw sewage, in terms of the following:
 - By an occupational medical practitioner
 - Before entering the site to establish the workers baseline
 - During the period of the contract the risk assessment indicate possible exposure
 - After completion of the contract
- Medical surveillance should such be required after the above-mentioned by an occupational health practitioner.
- Indication on how all records of assessment, monitoring, etc. will be kept, taking into account that records have to be kept for a period of 40 years.
- How exposure to HBA is to be controlled
- The provision of personal protective equipment
- What information and training is to be provided to employees regarding the following:
 - The contents of these regulations
 - Potential risks to health
 - Control measures to be implemented
 - The correct use and maintenance of personal protective equipment
 - The results of the risk assessment.

5.43 Noise Induced Hearing Loss

Where noise is identified as a hazard the requirements of the NIHL regulations must be complied with and the following must be included / referred to in the Health and Safety Plan:

- Proof of training with regards to these regulations.
- Risk assessment done within 1 month of commencement of work.
- That monitoring carried out by an AIA and done according to SABS 083.
- Medical surveillance programme established and maintained for the necessary employees.
- Control of noise by referring to:
 - Engineering methods considered
 - Admin control (number of employees exposed) considered
 - Personal protective equipment considered/decided on
 - Describe how records are going to be kept for 40 years.

5.44 Explosives and Blasting

Not applicable on this project.

5.45 Personal Protective Equipment (PPE)

The Contractor shall carry out PPE or clothing needs analysis in accordance with his risk assessment, to determine the necessary PPE or clothing to be used during construction. The Contractor shall make provision and keep adequate quantities of SABS approved PPE or clothing on site at all times.

The Contractor must ensure that personnel are trained in the correct use of PPE to be used.

The Contractor must ensure that lost, stolen, worn out or damaged PPE is replaced as required and receipt signed for by employees on site.

5.46 Asbestos

Applicable on this project.

Should asbestos be identified as a hazard whilst work is carried out, the following must be included in the health and safety plan:

- Notification to the Provincial Director in writing, prior to commencement of asbestos work.
- Proof of a structured medical surveillance programme, drawn up by an occupational medicine practitioner.
- Proof that an occupational health practitioner carried out an initial health evaluation within 14 days after commencement of work.
- Copies of the results of all assessments, exposure monitoring and the written inventory of the location of the asbestos at the workplace.
- Only proof that medical surveillance has been conducted and not the actual records itself since these areas of a confidential nature.
- How records are going to be kept safe for the stipulated period of 40 years.

- Proof that asbestos demolition (if applicable) is going to be done by a registered asbestos contractor and provide proof that a plan of work for such demolition is submitted to an Approved Asbestos Inspection Authority 30 days prior to commencement of the demolition.
- Provide proof that the plan of work was approved by the asbestos AIA and submitted to the provincial director 14 days prior to commencement of demolition work together with the approved standardised procedures for demolition work
- Asbestos work may only be performed subject to prior approval of the Provincial Director, Occupational Health and Safety, department of Labour in writing Proof of such notification must be applied to the Client prior to work proceeding. All employees must be informed and receive training on aspects such as the contents and scope of the Asbestos Regulations as published in Government Gazette 23108 dated 10 February 2002, the potential risks of exposure to asbestos, precautionary measures employees have to take and all other requirements deemed necessary to provide a safe and healthy environment for all employees as specified by the Asbestos Regulations as indicated above. Disposal shall be done under strict accordance with the act.

5.47 Lead

Not applicable on this project.

Should lead be identified as a hazard whilst work is carried out, the following must be included in the health and safety plan:

- Proof that an occupational health practitioner carried out an initial health evaluation within 14 days after commencement of work.
- Copies of the results of all assessments, exposure monitoring and the written inventory of the location of the lead at the workplace.
- Only proof that medical surveillance has been conducted and not the actual records since these are of a confidential nature.
- How records are going to be kept safe for the stipulated period of 40 years.

5.48 Pressure Vessels (Including Gas Bottles)

Not applicable on this project.

5.49 Fire Extinguishers and Fire Fighting Equipment

The Contractor shall provide adequate, regularly serviced fire extinguishers located at strategic points on site. The Contractor shall keep spare serviced portable fire extinguishers. The Contractor shall have adequate persons trained or competent to use the Fire Fighting Equipment.

Safety signage shall be posted up in all areas where fire extinguishers are located.

5.50 Lifting Machinery and Tackle

Not applicable on this project.

5.51 Ladders and Ladder work

The Contractor shall ensure that all ladders are numbered and inspected regularly keeping record of inspections. It should be noted that Aluminium ladders are preferred to wooden ladders.

5.52 General Machinery

The Contractor shall comply with the Driven Machinery Regulations, which include inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE or clothing and training those that use machinery and enforce compliance.

5.53 Portable Electrical Tools

The Contractor shall ensure that use and storage of all explosive actuating fastening devices and portable electrical tools are in compliance with relevant legislation.

The Contractor shall consider that:

- A competent person undertakes routine inspections;
- Only authorised persons use the tools;
- There are safe working procedures applied;
- Awareness training is carried out and compliance is enforced at all times; and
- PPE and clothing is provided and maintained.

5.54 High Voltage Electrical Equipment

The Contractor shall ensure that, where the work is under, on or near high-voltage electrical equipment the Electrical Installation Regulations, together with safety instructions (Regulations of the Owner of the Equipment) are complied with. Such equipment includes:

- Eskom and the Local Authority equipment
- The Contractor's own power supply; and
- Electrical equipment being installed but not yet taken over from a Contractor by The Client.

5.55 Public Health and Safety

The Contractor shall ensure that each person working on or visiting a site, and the surrounding community, shall be made aware of the dangers likely to arise from on-site activities and the precautions to be observed to avoid or minimize those dangers. Appropriate health and safety signage shall be posted at all times.

5.56 Night Work

Not applicable on this project.

5.57 Lighting

Where poor or lack of illumination is identified as a hazard the lighting regulations must be complied with and the following must be included in the H&S Plan:

- How lighting will be ensured/ provided where daylight is not sufficient and /or after hours are worked.
- Planned maintenance programme for replacing luminaries.
- Proof of illumination levels of artificial illumination equipment.

5.58 Environmental Conditions and Flora and Fauna

The Contractor must be mindful of adverse weather conditions upon the health and safety of the workforce. This includes inclement weather, strong wind, heat stress, extreme cold, etc. The Contractor's risk assessment process must take into account the risks associated with such weather conditions. The same is true when working in an environment where there is a risk to employees' health and safety from presence of poisonous flora, or wildlife (including bees, snakes, etc.). The Contractor's risk assessment process must take these risks into account.

5.59 Occupational Health

Exposure of workers to occupational health hazards and risks are very common in any work environment, especially in construction. Occupational health hazards and risks exposure is a major problem and all Contractors are to ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards and risks.

The occupational hazards and risks may enter the body in three ways:

- Inhalation through breathing e.g. cement dust;
- Ingestion through swallowing maybe through food intake;
- Absorption through the skin (pores) e.g. painting or use of thinners.

The contractor is required to ensure that all his personnel are medically fit prior to being allowed onto the work site.

All Contractors should ensure that Occupational Hygiene surveys are conducted as per the Occupational Health and Safety Act to ensure employees are not exposed to hazards. Risk Assessments should identify areas where surveys are to be conducted.

5.60 Suspended Platforms

Not applicable on this project.

5.61 Material Hoists

Not applicable on this project.

5.62 Explosive Actuated Fastening Device

Not applicable on this project

6. TRAINING, INSPECTIONS AND RECORDS

The Contractor must be aware of the following additional requirements:

What	When	Output
Awareness training (Toolbox Talks)	At least fortnightly and before hazardous work is carried out	Attendance Register
Health and Safety Committee Meetings	Monthly	Minutes signed by employer
Health and Safety Reports	Monthly	Report covering: a) Incidents / Accidents and investigation b) Non conformance c) Health and Safety Training d) HIRA Updates e) Internal & External Audits
General Inspections	As per Health and Safety Specifications & OHSA	Report of Health and Safety Specifications and OHSA compliance: a) Scaffolding b) Lifting Machinery c) Excavations d) Construction vehicle
General Inspections	Monthly	Covering: a) Fire Fighting Equipment b) Portable Electrical Equipment c) Hand Tools d) Ladders
Record Keeping	On-going	Covering: a) General Complaints b) Fines c) General Incidents d) MSDS e) Surveillance Medicals f) Inspection Registers g) Department of Labour Notices

ANNEXURE A

The contractor shall submit the info below in an Annexure 2 prior to construction commencement.

Item No.	Health and Safety Specification Requirement	OHSA Requirement	Submission date
1	Notification of Intention to Commence Construction	Construction Regulation 2014	At least 7 days before commencement on site
2	Construction Work Permit	Construction Regulation 2014	At least 30 days prior to project commencement
3	Assignment of Responsible Person to Manage Building Work Via Health and Safety Organogram	Construction Regulation 2014	Before commencement on site
4	Competency for Health and Safety Positions	Client / Client Agent requirement	Before commencement on site
5	Letter of Good Standing	Compensation of Occupational Injuries & Disease Act (COIDA) 130 of 1993	Before commencement on site
6	Occupational Health and Safety Policy	Client / Client Agent requirement	Before commencement on site
7	Risk Assessment, Safety Plan, Demolition Method Statement	Client / Client Agent requirement	Before commencement on site

ANNEXURE B: APPOINTMENTS

The Contractor shall make the following appointments:

No	Description	No	Description
1	Chief Executive Officer (OSHACT 16(1))	17	Material Hoist Inspector (CR19(8)(a))
2	Contract Director/Manager (OSHACT 16(2))	18	Material Hoist Operator (CR19(6))
3	Construction Manager (CR 8(1))	19	Bulk Mixing Plant Supervisor (CR20(1))
4	Construction Supervisor (CR 8(7))	20	Bulk Mixing Plant Operator (CR20(2))
5	Assistant Construction Supervisor (CR 8(8))	21	Controller of Explosive Actuated Fastening Devices (CR21(2)(g)(1))
6	Construction Safety Officer (CR 8(5))	22	Construction Vehicle and Mobile Plant Operator (CR23(1)(d)(i))
7	Construction risk assessor (CR 9(1))	23	Controller of Temporary Electrical Installations (CR24('c))
8	Fall Protection Competent Person (CR 10(1))	24	Stacking Supervisor (CR28(a))
9	Traffic Safety Officer	25	Fire Extinguishing Equipment Inspector (CR29(h))
10	Safety Representative (where > 20 employees on site)	26	Fire Fighters (CR29(i))
11	Temporary work Designer (CR 12(1))	27	First Aider (GSR 3)
12	Temporary work Supervisor (CR12(2))	28	Fall Protection Plan Developer (CR 10(1)(a))
13	Excavation Supervisor (CR13(1)(a))	29	Incident Investigator (OSHACT 9(2))
14	Demolition Supervisor (CR14(1))	30	Competent Person – Confined Spaces (GAR 5(1))
15	Scaffold Supervisor (CR16(1))	31	Health and Safety technical Committee (CR 31)
16	Suspended Platform Supervisor (CR17(1))	32	General Machinery Competent Person (GMR 2)

7. PROJECT DETAILS - MAINTENANCE / REPAIRS TO BOULDERS VISITORS CENTRE AT TABLE MOUNTAIN NATIONAL PARK - SANParks

PROJECT DIRECTORY:

Client	Tokai Administration Building. Tokai Megan Taplin, Park Manager	
Client Agent	SANParks Technical Services	Onwabile Plaatjie

PROJECT DETAILS:

<p>Description of Works Maintenance/Renovations of t, consisting of alterations, carpentry and joinery, ceilings, glazing, electrical works, painting, roofing etc.</p>
<p>Anticipated Project Duration Three years as and when required.</p>
<p>Provisional Start Date As per the appointment letter 2025</p>
<p>Completion Date As per the appointment letter.</p>

EXISTING ENVIRONMENT:

<p>Hazards particular to this project by virtue of location: Wild Animals: Penguins, Spiders, Snakes and Baboons etc.</p> <p>Members of public and children: Not applicable</p> <p>Public Roads: Not applicable</p>
<p>Overhead, Above Ground and Underground Services crossing the site:</p> <p>Overhead: Not applicable</p> <p>Underground: Not applicable.</p> <p>Ground Level: Not applicable.</p> <p>Services Drawings available Not Applicable</p> <p>Way leaves required: Not Applicable</p> <p>Permits required: Not applicable</p> <p>Isolation required: Not Applicable</p>
<p>Existing structures and surrounding land use (with a significant impact on Health and Safety): Houses, Stores and offices etc..</p>
<p>Existing ground conditions and ground survey report: NA</p>

Existing Traffic Systems:

Conditions:	Gravel Roads and Tar Roads
Restrictions to access:	Not Applicable
Speed restrictions:	Normal road restrictions: 40km/h

PROJECT HEALTH AND SAFETY REQUIREMENTS:

Significant health and safety hazards identified by Designer and Client Agent:

Accommodation of Traffic (Management Plan): Not applicable

Members of the Public: The works are located in an area in the vicinity of SANParks employees, but away from the general public. The Principal Contractor is responsible for the safety of the workers as well as SANParks employees. The Principal Contractor is to provide sufficient warning & information signage in place as required by the OHS Act.

Wild animals: Induction to be conducted by Table Mountain National Park which addresses hazards caused by wild animals.

Normal construction hazards expected are as follow:

Carpentry and Joinery

Roofing (Asbestos Roof Sheet)

Ceilings

Ironmongery

Electrical work

Glazing

Paintwork

Hand Tools

Plant / Vehicle and Equipment Operations

Site Establishment

Transportation of workers

NOTE: Please refer to the end of this Health and Safety Specification for the baseline risk assessment of these risks.

ACTIVITIES REQUIRING APPROVED METHOD STATEMENTS

Not applicable

ACTIVITIES REQUIRING PERMITS

Permit to Dig / Permit to Enter Excavations: Not applicable on this project

Permit to Work with Electricity: Not applicable on this project

Confined Space Permit: Not applicable on this project

Hot Works Permit: Not applicable on this project

Permit to work under Power Lines: Not applicable on this project

Blasting: Not applicable on this project

Temporary Works: NA

GENERAL ARRANGEMENTS	
Restrictions on times:	Monday - Friday 08:00 to 16:00
Access to site by Construction Vehicles:	NA
Access to site by Construction workers & Visitors:	Contractor to maintain a daily site attendance register
Site camp location and set up:	Restrictions/requirements, storage areas and security to be advised in consultation with client
Ablution and Welfare:	Contractor to provide as per regulations
Environmental Conditions:	NA
Induction Training:	All workers to receive induction training by Table Mountain National Park prior to commencement on site. Special reference to SANParks EMP and Code of Conduct

PROTECTION OF SITE AGAINST UNAUTHORIZED ACCESS BY PUBLIC	
General: Not Applicable	
Warning Notices: Construction site, Visitors to report to the site office. Fire Extinguisher, First Aid, Emergency Assembly area and Emergency telephone numbers. Reflective vests, safety boots and dust masks signage to be displayed.	

PERSONAL PROTECTIVE EQUIPMENT (PPE)	
The Client requires the Contractor to ensure that employees (and other under his/her control) wear the following minimum PPE:	
Overalls:	Yes, required
Safety Harnesses:	Yes required
Hard Hats:	Yes, required
Safety Footwear:	Yes, required
Reflective Vests:	Yes, required
Goggles / Gloves / ear and respiratory protection	As required per specific job function
Specialist equipment:	As required per specific job function

HAZARDOUS SUBSTANCES	
The following materials and substances have, or may have, to be used in the works and are identified as potentially posing special health and / or safety hazards during the project. Appropriate measures will need to be specified for their control:	
Glass	Silicone
Dust	Solvents
Paint	
Asbestos	
Roof Sheets	

8. BASELINE RISK ASSESSMENT BUILDINGS
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PROJECT: MAINTENANCE / REPAIRS TO BOULDERS VISITORS CENTRE AT TABLE MOUNTAIN NATIONAL PARK - SANParks

Risk Rating is measured by determining the Likelihood (L) and Consequence (C) and using the Matrix to determine the Risk Rating (R).

Risk Ranking below 10 is deemed Tolerable, between 11 and 19 is deemed Medium Risk and above 20 is deemed High Risk

Steps in operation	Ref No.	Hazard	Risk	Risk Rating			Controls Measures	Other Controls
				L	C	R		
General Onsite Activities	A1	Access to Site	Pedestrian & people equipment interaction causing injury	4	2	12	Occupational Health and Safety Act 24(1)	Area to be secured and barricaded / fenced
			Dust Inhalation	3	1	4	Hazardous Chemical Substances Regulation (36)(37)(38)	Induction Training & PPE
			Unauthorised entry	3	2	8	Occupational Health and Safety Act 12(2)	Site Visit Register, signage, Permit for vehicle access
			Slip, trip and fall	3	2	8	Occupational Health and Safety Act 12(1)(b)(c)	Induction Training & PPE
	A2	Lack of employees facilities	Lack of drinking water, dehydration of workers	3	5	22	Construction Regulation 30(1)(a)	Provision of drinking water & Induction training
			Lack of sanitary facilities, unhygienic conditions	3	5	22	Construction Regulation 30(1)(b) and 30(2)	Provision of chemical toilets & proper housekeeping
	A3	Stacking & Storage	Fall, slip resulting in potential injury/damage	4	3	17	Construction Regulation 28(d)	Storage plan, induction training and restricted access
			Obstructing critical equipment and walkways	4	3	17	Construction Regulation 27 (a)(c)(g)	Storage plan, induction training and restricted access
			Flammable liquids catching fire	3	3	13	Construction Regulation 25(a)(b)(c)	Storage plan, induction training and fire-fighting equipment
			Hazardous storage of materials	3	3	13	Hazardous Chemical Regulation(25)9A(2)	Storage plan, regular inspections
	A4	Handling of chemicals and fuels	Exposure	3	3	13	Hazardous Chemical Regulation 9A(1)(a-p)	PPE
			Inhalation	3	3	13	Hazardous Chemical Substances Regulation (36)(37)(38)	
			Burns to Skin	3	3	13	Hazardous Chemical Substances Regulations 9A(2); Material Data Sheet	

A5	Temporary Low voltage Electrical installation	Exposure to live wires-electrocution	2	5	19	Construction Regulation 24(a)(b)	Lockable DB box, Inspection register
		Faulty earth leakage	2	5	19	SANS 10142	Competent person to do installation & inspection
		Short circuit causing fire	2	4	14	Construction Regulation 24(b)	Weekly inspection, Induction Training & Fire-fighting equipment
A6	Issue of PPE	Incorrect PPE	4	2	12	General Safety Regulation 2(1)	PPE Register
A7	Usage of PPE	Incorrect use of PPE	4	2	12	General Safety Regulation 3(2)	PPE Register, Induction Training, supervision
		Negligence to use PPE	4	2	12	General Safety Regulation 5	PPE Register, Induction Training, supervision
A8	Adverse storms	Struck by lightning	2	5	19	Induction Training Safe Operation Procedure	Proper warning system
A9	Adverse heat	Dehydration, Sunburn, heat stroke	3	4	18	Induction Training Safe Operation Procedure	Proper drinking water, PPE
A10	Working in excessive winds	Exposure to dust	3	4	18	Hazardous Chemical Substances Regulation (36)(37)(38)	PPE
A11	House keeping	Objects lying around can result in slip/fall	4	2	12	Construction Regulation 27(a)(b)	Regular cleaning of site
		Unhygienic conditions	3	3	13	Construction Regulation 27(d)	Induction Training
		Pollution of area	3	2	8	Construction Regulation 27(e)	Proper waste bins and waste removal
A12	Fire prevention	Open Fires	3	3	13	Construction Regulation 29(a)	SANParks EMP & Code of conduct
		Inadequate fire-fighting equipment	4	3	17	Construction Regulation 29(g)(h)	Inspection register, supervision
		Runaway fires	4	4	21	Emergency evacuation plan	SANParks EMP & Code of conduct
		Accidental Fires	3	4	18	Construction Regulation 29(a)(d)(iii)	Designated smoking areas
A13	Environmental pollution	Pollution of ground, air, workspace	3	2	8	Environmental Regulation 6(d)	SANParks EMP & Code of conduct
		Littering	4	2	12	SANParks Environmental Management Plan	Induction Training, Provide proper trash bins
A14	Working near hazardous animals incl snakes, spiders & scorpions	Poisons bites/ attack by large animals	3	3	13	SANParks Environmental Management Plan	Induction Training, SANParks ranger where required, Proper treatment in first aid kit

	A15	Working in close proximity of water	Falling into water & drowning	3	4	18	Construction Regulation 26(1)(a)(b)	Safe work area, Induction Training, barricades
			Pollution of water body	3	4	18	SANParks Environmental Management Plan Construction Regulation 26(2)	Induction Training
Transportation	C1	Transportation of employees	Interaction with other vehicle-collision	4	4	21	Construction Regulation 23(1)(b)(j)	Supervisor
			Equipment not roadworthy	3	1	4		Vehicle checklist, vehicle must meet required standards
			Equipment not licensed	3	1	4	Construction Regulations 23(a)(b)	Supervision and monitor
			Operator of vehicle transporting employees not licensed and authorized	3	1	4	Construction Regulation 23(2)(i)(j)	Supervision and monitor if Driver has Valid PDP
			Vehicle not equipped to transport employees	3	1	4	Construction Regulation 23(d)(i)(j)	Vehicle checklist, vehicle must meet required standards
			Not Adhering traffic legislation	3	1	4	Construction Regulation 23(2)(j)	Supervision, implement fines
	C2	Transportation of material or equipment with people	Material/equipment fall from vehicle	4	4	21	Construction Regulation 23(g)(h)	Properly secure all goods
			Potential accident/collision	4	4	21	Construction Regulation 23(2)(g)(h)(j)	Induction Training, Reflective vests, safe work area
	C3	Towing a Trailer	Vehicle accident	4	4	21	Construction Regulations 23(e); Occupational Health and Safety Act 24(1)(c)(iii)(iv)	Awareness, trained operator
			Towing coupler failure	3	3	13	Construction Regulation 22(e)	Inspection Register
Hand Tools	D1	Injury Due to	Incorrect tools used	4	3	17	Hand tool register, Induction Training,	Supervision
			Defective tools	4	3	17	Safe Operation Procedure	Supervision
			Struck by flying debris	3	3	13	Safe Operation Procedure	PPE
	D2	Hand Drills	Clothing being grabbed by rotating drill	3	3	13	Safe Operation procedure, Toolbox Talks Electrical Machinery Regulations 10(3)(4)	PPE, Supervision
			Unsecured work piece rotating with drill	3	3	13		PPE, Supervision
			Shaving flying into eyes	3	3	13		PPE, Supervision

		Accidental injury	4	3	17	Electrical Machinery Regulations 10(4)	PPE, Supervision	
		Electrocution	3	5	22	Electrical Machinery Regulations 10(1)(a)(b)	Tool inspection register	
D3	Angle Grinder	Cutting disc cracked and breaks	3	3	13	Safe Operation procedure, Toolbox Talks	PPE, Supervision	
		Shaving flying into eyes	3	3	13	Electrical Machinery Regulations 10(3)	PPE, Supervision	
		Exposure to noise	3	3	13	Noise Induced Hearing Loss Regulations (7)(1)(a)(b)(c)(d)	PPE	
		Vibration	2	2	5	Safe Operation procedure, Toolbox Talks		
		Accidental injury	4	3	17	Safe Operation procedure, Toolbox Talks	PPE, Supervision	
		Electrocution	3	5	22	Electrical Machinery Regulations 10(1)(a)(b)	Tool inspection register	
D4	Other electrical portable hand tools	Electrocution	3	5	22	Electrical Machinery Regulations 10(1)(a)(b)	Tool inspection register, inspect extension cord	
		Exposure to noise	3	3	13	Noise Induced Hearing Loss Regulations (7)(1)(a)(b)(c)(d)	PPE	
		Vibration	2	2	5	Safe Operation procedure, Toolbox Talks		
		Accidental injury	4	3	17	Safe Operation procedure, Toolbox Talks	PPE, Supervision	
		Shaving flying into eyes	3	3	13	Safe Operation procedure	PPE, Supervision	
D5	Explosive actuated fastening device	Malfunction of equipment causing injury/damage	3	3	13	Explosive Regulations 15(a)(b)	Tool inspection register, inspect extension cord	
		Accidental injury	3	3	13	Explosive Regulations 15(b)	PPE, Supervision	
		Accidental discharge	3	3	13	Explosive Regulations 15(a)(b)	Safety mechanism working, Store in unloaded condition	
Site Clearance	E1	Removal of waste	Moving machinery accident	4	4	22	Construction Regulation 23(1)(b)(c)	Reflective vests, restricted access, induction training
			Waste material falling of vehicle	3	3	13	Construction Regulations 23(h)	Secure load, stay within maximum vehicle load capacity
			Dust Inhalation	3	2	8	Hazardous Chemical Substances Regulation (36)(37)(38)	Induction Training & PPE
	E2	Demolition	Structure/rubble falling on person	3	3	13	Construction Regulation 14(1); 4(ii)	Induction Training, PPE, demarcate area

			Dust Inhalation	3	2	8	Hazardous Chemical Substances Regulation (36)(37)(38)	Induction Training & PPE
			Presence of lead	2	4	14	Lead Regulations (3)	PPE, Induction Training
			Presence of Asbestos	2	4	14	Asbestos Regulations (4)	PPE, Induction Training
			Hitting electrical cable - electrocution	3	5	22	Construction Regulation 24(a)	Induction training, Site map indicating existing services
			Hitting of gas line - explosion	3	5	22	Construction Regulation 14(1)(2)	Induction training, Site map indicating existing services
Working at heights	J1	Climbing up and down equipment	Fall from equipment	4	3	17	General Safety Regulations (6)	Induction, PPE, Fall Protection plan
			Equipment used for incorrect purposes	3	3	13		Induction training, supervision
			Equipment failure resulting in injury/damage	3	3	13		Inspection register
	J2	Working on Scaffolding	Collapse of Scaffolding	3	3	13	Construction Regulation 16(1)	Competent scaffold erector, inspection register
			Person slipping/falling from scaffolding	4	3	17	Construction Regulation 16(2)	Fall protection plan, safety harnesses, barricades
			Falling objects from scaffolding causing injury/damage	4	3	17	Construction Regulation 16(1)(2)	PPE, safe work area, catch nets
			Scaffolding used for incorrect purpose	3	2	8		Induction Training, supervision
			Sharp edges causing injury	3	2	8		Eliminate or clearly mark edges
	J3	Working on Ladders	Fall from ladder	4	3	17	General Safety Regulation 13A(4)(a)(b)	PPE, safety harness, Fall protection plan
			Ladder not secure - slip	3	3	13	General Safety Regulation 13A(2)(a)(b)	Secure ladder
			Ladder damaged or substandard	3	3	13	General Safety Regulation 13A(2)(a)(b)	Ladder inspection Register
			Ladder used for incorrect purpose	3	2	8	General Safety Regulation 13A(3)(a)(b)	Induction Training, supervision
	Construction	L1	Painting	Unauthorised use of grinders during preparation for painting	3	3	13	Hazardous Chemical Substances Regulations 10(1)(a)(b)(f)(3)
Exposure to chemicals/ inhalation of fumes				3	4	18	PPE, Supervision	
Spillage/ pollution from paint				3	3	13	PPE, Supervision	

		Flammable liquids - Accidental fire	3	4	18	Construction Regulation 25(a)(b)(c)(d)(e)(f)(g)	Proper storage facilities, Fire fighting equipment
		Improper ventilation	3	3	13		Restricted access
		Unauthorized access to flammable liquids	3	3	13		PPE. Fall Protection Plan
		Fall from heights	3	3	13		
L2	Carpentry & Joinery	Injury due to sharp bladed tools	3	3	13	Safe Operation Procedures (SOP)	PPE, Induction Training
		Shards flying into eyes	4	3	17		PPE, Induction Training
		Exposure to chemicals/ inhalation of fumes	3	4	18	Hazardous Chemical Substances Regulations 10(1)(a)(b)(f)(3)	PPE, Supervision
		Injury due to hauling of material	4	3	17		PPE, Induction Training
L3	Chasing of services into brickwork	Dust Inhalation	3	2	8	Hazardous Chemical Substances Regulation (36)(37)(38)	Induction Training & PPE
		Electrocution - hitting of services				Construction Regulation 24(a)	
		Injury due to sharp bladed tools	3	3	13	Safe Operation Procedures (SOP)	PPE, Induction Training
		Shards flying into eyes	4	3	17		PPE, Induction Training
L4	Roof Construction	Falling Material onto person	3	3	13	Construction Regulations 10(1)(a)(b)(c)	PPE, Induction Training
		Fall from heights	3	3	13		PPE. Fall Protection Plan
		Collapse of structure	3	3	13		Competent designer, supervision
L5	Electrical cable connections/ electrical installations	Electrocution	3	5	22	Construction Regulation 24(a)	Competent person to do installation & inspection
		Dangerous/unsafe cable Joints	3	3	13	Construction Regulation 24(a)(b)(d)(e)	Supervision
		Accidental switch on while work in progress	3	5	22		Apply lockout procedure before doing connections
		Inadequate material used, causing short circuit/fire	3	3	13		SABS approved material
		Short circuit can blow up when switching	3	5	22		PPE

Maximum Reasonable Consequence (C)

C	People Health and Safety	Property or Production	Environmental or Community	Financial Impact
5	Could Kill or permanently disable	Could cause very major damage > R500K	A Major event creating irreversible damage/loss	>R10m
4	Could cause serious injury or disease (Major LTI)	Could cause major damage R100K to R500K	An event having substantial & permanent consequence to the environment	> R2.5m & < R10m
3	Could cause typical MTI / RWI / LTI	Could cause moderate damage R50K to R100K	An event having substantial temporary or a minor permanent consequence to the environment	> R500k & < R2.5m
2	Could cause First Aid injury	Could cause damage R5K to R50K	An event having temporary or a minor consequence to the environment	> R5k & < R500k
1	Couldn't cause injury or disease	Couldn't cause damage < R5K	No detrimental impact on the environment	<R5k

Likelihood of the event occurring(L)

L	Description of probability or potential of event occurring		
5	Very High	Common regular occurrence	Almost certain to happen
4	High	Possibility of regular occurrence	Likely to happen / Known to happen
3	Moderate	Isolated incidents - Could happen	Has been reported from else where so it could happen
2	Low	Not likely to occur	Unlikely: not likely to happen but not impossible
1	Very Low	Rare - Very unlikely	Practically impossible

Risk Rating Matrix

		Likelihood				
		5	4	3	2	1
Consequence	5	25	24	22	19	15
	4	23	21	18	14	10
	3	20	17	13	9	6
	2	16	12	8	5	3
	1	11	7	4	2	1

Actions

High 20-25	Immediate action to reduce risk. Introduce hard barriers and adequate controls to reduce risk. Control hazards. Monitor regularly
Moderate 11-19	Urgent attention to improve controls and reduce inherent risks. Monitor systems controls & audit quarterly & implementation of controls
Acceptable 1-10	Controls in place. Tolerable risk levels. Ensure monitoring is as per H&S Policy

DRAFTING COMMITTEE

INITIALS	SURNAME	DESIGNATION	CONTACT DETAILS	HIRA TRAINING	SIGNATURE	DATE
O	PLAATJIE	TECHNICAL MANAGER	onwabile.plaatjie@sanparks.org	No		

9. HEALTH AND SAFETY SPECIFICATION ACKNOWLEDGEMENT RECEIPT

Contractor's Acknowledgement:

I, _____ representing
_____ (Contractors), have satisfied
myself with the content of this Health and Safety Specification and have made the relevant provision
under my Preliminary & General Section for any and all costs involved to ensure compliance of this
Specification and shall we be the successful contractor, we shall ensure that our employees and
contractors on site comply with the requirements of this documents, our safety documentation and
health and safety legislation.

Signature of Contractor

Date

Comments:
