Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

Project Name:	**STRUCTURAL REPAIRS TO C-BERTH QUAY WALL AT THE PORT OF DURBAN**	**Approved by:**	**Dumisani Mkhize**
Prepared by:	**Philani Mbhele**		
Reviewed by:	**Asanda Dube**		
Baseline Risk Assessment Date:	**18/09/2026**		

Item No.	Nature of the Potential Risk	Description of Risk	Mitigation Measures
Scope of Work	• **Execution of Bathymetric Multi-beam surveys** Initial seabed and structural surveys to establish baseline conditions, levels, and extents of damage/debris. • **Underwater Diving inspections** Detailed diving inspections (building on preliminary reports) to confirm concrete loss, exposed reinforcement (≈29 horizontal bars), cracks, caisson displacement, and seabed conditions. • **Detailed Structural Assessment and Investigations** Full assessment of the damaged quay wall (including any required material testing or further verification of toe/foundation), verifying as-built information and identifying discrepancies. • **Design of the structural repair work methodology** Contractor develops detailed permanent repair design (to match original geometry/reinforcement where possible), temporary works designs, construction sequencing, method statements, and obtains acceptance from the Project Manager/Supervisor. All designs by ECSA-registered Professional Engineers. • **Temporary relocation of existing services** Identify, protect, or temporarily relocate services; obtain wayleaves and coordinate with Port authorities and Others.		

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

Item No.	Nature of the Potential Risk	Description of Risk	Mitigation Measures
	• **Removal of marine growth on the surface of the damaged area** Clean the affected zone to fully expose the extent of damage and cracks. • **Preparation and breaking of existing mass concrete capping** Break out and remove damaged mass concrete capping (and related coping/fender-area concrete) as required for the repair zone. • **Dredge caisson toe and expose top of caisson foundation** Dredge to expose the top of the caisson foundation and clear the work area. • **Removal of broken concrete and reinforcement steel pieces on the seabed** Clear all debris, broken concrete, and steel from the seabed. • **Supply and delivery of construction materials + Temporary works and shutters (Contractor design)** Deliver all Plant/Materials (new, unused, marine-grade); install Contractor-designed temporary works, formwork/shutters, and access arrangements • **Reinforcement installation** Dowel Y25 vertical bars 300 mm into the caisson foundation. Fix horizontal bars (C02) to the vertical bars. Fix both horizontal and vertical bars to the existing wall with holding-down bars (C03), doweled 100–200 mm into the existing wall. Ensure minimum 80 mm concrete cover. • **Cast/Placement of tremie concrete in 500 mm lifts** Place tremie concrete in controlled 500 mm lifts to reinstate the structure. • **Installation of grout bags to seal joints between Caisson structures** Seal joints between caissons with grout bags.		

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

Item No.	Nature of the Potential Risk	Description of Risk	Mitigation Measures
	• **Completion activities** Out-surveys, monitoring surveys (as required), testing/inspections, correction of any Defects, redline as-built drawings, quality/safety/environmental data packs, site clearance, and demobilisation so that Completion can be certified.		
1.	Site Access Control	The contractor does not comply with all access control, procedures and systems applicable to the project site.	The contractor must comply with all access control, procedures and systems applicable to the project site. Failure to comply with these requirements will be viewed as a serious safety breach and may result in the permanent removal of the individual(s) / contracting company from site or suspension without payment. Access will be controlled as follows: The access will be strictly controlled and managed Contract period access – an access card valid for the full contract period will be issued to an individual once the following requirements have been met: ○ Completion of a pre-employment medical examination. ○ Completion of all required project induction training. ○ Completion of special training / licensing if applicable (e.g., Driving/operating License); and ○ Provision of proof of job / trade-specific qualifications, licenses, training, Experience and competency (as required). **Note**: No access card will be issued unless proof of identification is provided (i.e., an identity document or a valid passport). For foreign Labour, an access card will only be issued if a valid work visa is produced. **Note**: A driving license will not be accepted as proof of identification.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

Item No.	Nature of the Potential Risk	Description of Risk	Mitigation Measures
2.	General Rules of Conduct	Contractor does not conform to the following rules of conduct while on the site.	All people are required to conform to the following rules of conduct while on the site. The following acts are prohibited: • Engaging in practical jokes, horseplay, scuffling, wrestling, fighting, or gambling. • Assault, intimidation, or abuse of any person. • Insubordination towards any supervisor or manager. • Refusing to carry out a reasonable and lawful instruction concerning health and safety. • Entry into any restricted area (including barricaded areas), unless authorised to do so by the responsible person. • Unauthorised use / operation of any equipment or machinery. • Negligently, carelessly or wilfully causing damage to any property. • Destroying or tampering with safety devices, signs, or signals. • The use of water from fire hydrants or hose reels for any purpose other than extinguishing a fire. • The wilful and unnecessary discharging of fire extinguishers. • Refusing to give evidence or deliberately making false statements during incident investigations. • Bringing alcohol, drugs, or any other intoxicating substance onto site. • Bringing a firearm, ammunition, or any other offensive weapon onto site. • Bringing animals onto site. • Running, except in an emergency. • The use of an iPod (or similar) whilst working on site.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

Item No.	Nature of the Potential Risk	Description of Risk	Mitigation Measures
			• Sleeping on the job. • Building fires on site, unless in a suitably constructed barbequing facility; and • Pouring / pumping / flushing any substance (chemical / hydrocarbon / wastewater) into a storm water drain, onto bare soil, or into any area where the substance is not effectively contained. Any of the above actions may result in the temporary or permanent removal of the offending person(s) from site, as well as possible prosecution. The decision of the nominated project management representative shall be final and binding in respect of any dispute that may arise from the interpretation of these requirements. Transnet will not get involved in contractor disciplinary rules and procedures. The contractor will simply be informed (with reasons) that the offending employee(s) will be denied access to the project site. Once the contractor has been informed, the employee(s) must be removed from the site immediately.
3.	Construction works taking place in conjunction with Port operations	The Port of Durban is an operational port and pedestrian, vehicle, railway and vessel traffic will be taking place within and around the construction site.	✓ The Contractor is to ensure that all access to and from the site is carefully monitored and controlled. Stop and go points to be identified and traffic controllers to be stationed at high-risk areas identified. ✓ All staff are to be informed of standard operating procedures and regulations of the port. The Contractor is to ensure all staffs abide to these procedures and regulations when working within the boundaries of the port. ✓ The contractor will determine Project Risks that it wants transferred to a General Liability Insurance.
4.	Contractors driving on the Port premises	The Port of Durban is an operational port and pedestrian, vehicle, railway and vessel traffic will take	✓ The contractor will strictly abide to the speed limit of respective location. ✓ The contractor will determine Project Risks that it wants transferred to a General Liability Insurance. ✓ Driving under the influence alcohol/drugs/medication is prohibited. Declaration of medication use needs to be managed by the Construction Manager/Supervisor. ✓ Driving without a valid driving licence disc.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

Item No.	Nature of the Potential Risk	Description of Risk	Mitigation Measures
		place within and around the construction site.	✓ Driving with passengers at the back of a Truck/LDV is prohibited.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

5.	Contractors' vehicles on the Ports premises	The Contractor may bring vehicles and Mobile equipment that is not road worthy.	All vehicles brought onto site must meet the safety requirements stipulated in Section 14.6. Each vehicle to be used on site must be inspected and approved by the nominated project management representative before a site access permit will be issued for the vehicle / equipment. No vehicle shall be permitted to enter the site unless it is duly authorised. Access permits are vehicle-specific and may not be transferred between vehicles. The contractor must allow any vehicle that is brought onto site (including privately owned vehicles) to be searched at any time while on the premises, or when entering or leaving the premises. The contractor is solely responsible for the safety and security of all vehicles (including private vehicles) that he brings onto the site. All road-going vehicles used by the contractor on the site must be roadworthy and registered with the relevant traffic authority. A vehicle will not be permitted to enter the site in an un-roadworthy condition. Access will be denied if, for example: • The vehicle has a defective exhaust system. • A serious oil or fuel leak is evident. • The vehicle has unsafe bodywork or is carrying an unsafe load. • The vehicle is fitted with extraneous or non-standard equipment; • Passengers are not seated properly; • The vehicle is not fitted with a seat belt for each occupant; or • The vehicle has any obvious mechanical defect; • Pre-inspection requirements are not met. Overloaded vehicles will not be permitted to enter the site. The driver / operator of any vehicle / mobile equipment must always carry a copy of his appointment with him. Each driver / operator must:

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

			• Comply with all site / project rules and regulations pertaining to traffic and the safe operation of vehicles / mobile equipment. • Obey all road signs. • Obey all instructions given by security or emergency services personnel. • Remain within the boundaries of the site; and • Ensure that the vehicle that he is operating is never overloaded, and that loads are always properly secured. In the interest of safety, only the minimum number of vehicles required by the contractor to complete the work under the contract will be permitted to enter the site. When not in operation, the contractor's vehicles / mobile equipment must be parked within the boundaries of his lay-down area or yard. Parking is only permitted in designated parking areas. All cars are parked on site at the owner's risk. In the event of a vehicle accident on site, the driver(s) must report the incident immediately and must remain at the scene until a nominated project management representative arrives, or until a nominated project management representative authorises him to leave (unless, of course, the driver requires medical attention).
6.	Trained and Licensed Contractor personnel on Ports Premises	The Contractor may bring personnel that are not trained and do not have a driver's license for category of vehicle.	Each employee (including sub-contractor employees) must be suitably trained and competent, and must understand the health and safety hazards, risks and control measures associated with his work as required by the OHS Act 85 of 1993, (14) The contractor must implement systems and procedures to ensure that: • The necessary competencies required by employees are identified (by occupation), along with selection, placement and any training requirements.

©Transnet SOC Ltd

			Please Note: Specific competency profiles and selection criteria (fitness for work) must be developed for all roles where significant health or safety risk exists. **Please Note**: A formal training needs analysis must be carried out based on the competency profiles and a training matrix must be developed for the project. Roles requiring technical certification, registration or licensing are identified and documented, and these roles are filled only by suitably qualified personnel. • Minimum core health and safety skills required by employees in leadership and supervisory roles are identified and suitable training is provided including hazard identification and risk assessment, incident investigation, and health and safety interactions (i.e., Observation and coaching techniques). • Competency-based training is provided, and it includes operational controls (procedures and work instructions), management of change, and emergency response. • All employees hold and maintain the required competencies (including appropriate qualifications, certificates and licences) and are under competent supervision. • A site-specific induction and orientation programme that highlights health and safety requirements, procedures, and significant hazards, risks and associated control measures is in place for all new employees and visitors (understanding must be assessed); • Personnel are trained and / or briefed on new or amended standards, rules, safe work procedures, risk assessments, etc. • Refresher training is carried out as required (e.g., Re-induction following an absence from site); • Records of education, qualifications, training, experience and competency assessments are maintained on site for all employees; and • The effectiveness of training is reviewed and evaluated.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

			Prior to the commencement of any work, including mobilization and site set-up activities, the contractor must provide, to the satisfaction of the nominated project management representative, current documentation verifying that the contractor's employees, as well as the employees of any appointed sub-contractors, are competent and have the necessary qualifications, certificates, licenses, job skills, training and experience (as required by this specification and applicable legislation) to safely carry out the work that is to be performed.
			
			The Contractor and sub-contractor must ensure that the following training takes place:
			• health and safety induction training pertaining to the hazards prevalent on the site at the time of entry
			• training for all people required to erect, move or dismantle temporary works structures and instruction to perform those operations safely
			• training of employees working from a fall risk position
			• training to work or to be suspended on a platform which includes at least:
			  • how to access and egress the suspended platform safely.
			  • how to correctly operate the controls and safety devices of the equipment.
			  • information on the dangers related to the misuse of safety devices; and
			  • information on the procedures to be followed in the case of-
			  o an emergency.
			  o the malfunctioning of equipment; and
			  o the discovery of a suspected defect in the equipment.
			  o an instruction on the proper use of body harnesses.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

			• Training for all operators of construction vehicles and mobile plants. A contractor must always keep 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. **Please Note: Only certified copies of certificates, licenses, etc. will be accepted.** An Employee Profile (dossier) must be completed for each employee who will be performing work on site. All documentation pertaining to an employee's competence (i.e., certified copies of qualifications, certificates and licenses as well as proof of job skills, training and experience) must be maintained in this dossier. If it is determined through observation that an employee is not yet competent to carry out a particular task in a safe and capable manner, the employee will be required to cease work immediately and must either be reassigned or be retrained at the contractor's expense. The contractor must provide proof that the training institutions and trainers that are used are appropriately registered with a governing authority (a trainer's registration certificate or registration number alone will not be adequate). The following must be made available for verification purposes: • Proof of registration of the training institution including the training programmes that the institution is accredited to provide; and • For each trainer, proof of competency and registration for the specific training programmes presented. Foreign qualifications held by employees in health and safety critical roles must be verified against the requirements of local legislation.
7.	Alcohol, Drugs and other Intoxicating Substances	The contractor may bring personnel under his authority to enter the site or perform any work whilst	The contractor must ensure that all personnel under his authority do not at any time enter the site or perform any work whilst under the influence of alcohol, a drug, or any other intoxicating substance.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

		under the influence of alcohol, a drug, or any other intoxicating substance.	Selling or possessing drugs, alcoholic beverages or any other intoxicating substance on the site is strictly prohibited. A drugs and alcohol testing program will be implemented. People entering the site will be randomly tested. Any person who tests positive for alcohol or drug consumption will be subject to disciplinary action and shall be permanently removed from the site. Any person has the opportunity to rather report that he/she is under the influence before accessing the project site – in this case the employee may only be send home for the day by the responsible project manager representative but will then be tested for the following five days (each day) on his return to the project site. If it is found that the same person is frequently reporting that he/she is under the influence before even accessing the project site. It shall be the responsibility of the nominated project management representative to take disciplinary action and remove such a person's form the project site. Should the actions and / or demeanor of an employee suggest possible narcosis or drunkenness, the employee must be removed from the site. This may be done without testing. **Note**: All personnel involved in an incident / accident must immediately be subjected to an alcohol test and a drug test as part of the investigation.
8.	Firearms, Ammunition and Offensive Weapons	People may enter Port premises with Firearms, Ammunition and Offensive Weapons.	• Firearms, ammunition, and offensive weapons of any kind are strictly prohibited. No person may enter /shall not be permitted to enter the site carrying any such item.
9.	Signs and Notices	The Contractor may display Safety signs and notices that are with the applicable legislation and good safety practice.	• The contractor must ensure that all required safety signs and notices are prominently displayed in accordance with the applicable legislation and good safety practice. • Signs and notices must be in English as well as any other language(s) commonly spoken on the project site. • All symbolic signs must comply with the applicable national standards. • No person may deface or damage any safety sign or notice. No person may remove or alter any safety sign or notice unless authorised to do so.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

10.	Plant and Machinery	Person may enter Port premises with defective Machinery and Plant	• The contractor must ensure that all plants and equipment brought onto the site are:
			  • Appropriate for the type of work to be performed
			  • Approved, inspected, tested, numbered and tagged (if appropriate) before being brought onto site
			  • Properly maintained in accordance with the manufacturer's recommendations; and
			  • Placed on a register and checked at least once per month or as required by the applicable legislation.
			• The contractor must supply, at his cost, all items of plant and equipment necessary to complete the work and must keep all items in good order.
			• Should any plant or equipment become inoperable for a period that is having or will have a significant impact on the work schedule, the contractor must, on instruction from the nominated project management representative, remove the out of service plant or equipment and replace it with similar fully operational plant or equipment at no additional cost.
			• No item of plant or equipment delivered to site for use on the contract may be removed from the site prior to the completion of the contract without approval in writing from the nominated project management representative.
			• Items of plant or equipment brought onto site by the contractor or his sub-contractors may be inspected by a nominated project management representative. Should the nominated project management representative determine that any item is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, the contractor must, on instruction from the nominated project management representative, immediately remove the item from the site and replace it with a safe and adequate substitute. In such a case, the contractor or his sub-contractor shall not be entitled to additional payments or deadline extensions in respect of any delay caused.

11.	Barricading	The Contractor may erect barricading that does not comply with applicable	• All applicable legislation concerning barricading must be always complied with.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

		legislation and Transnet Standards.	• Each contractor required to erect barricading on the project site(s) develop, document and implement Safe Work Procedures that are aligned with the requirements of this standard.
			• Barricading must be erected to:
			  • Prevent persons from contacting an identified hazard.
			  • Provide warning of the existence of a hazard;
			  • Prevent unauthorised access (by people, vehicles and mobile equipment) into an area where a hazard exists or where a hazardous activity is being carried out;
			  • Define the boundaries of a hazardous location and / or restricted area; and
			  • Allow a work team to perform hazardous tasks without persons unfamiliar with the hazard(s) accessing the area.
			• Although not limited to these situations, barricading must be erected or installed:
			  • Around excavations (trenches, pits, etc.) (refer to the Excavation Standard);
			  • To protect openings and edges (to prevent persons from falling, all openings and edges associated with floors, stairs, and the open sides of buildings and structures during the course of construction must be protected by sturdy, rigid barriers capable of withstanding a force of at least 110 kilograms applied in any direction at any point) (refer to the Working at Heights Standard);
			  • To prevent access into areas where overhead work is in progress;
			  • To route vehicles safety through (or around) construction areas; and
			  • To protect members of the public who may be in the vicinity of a work or construction site (by preventing access).
			• In all cases, the erection of barricading must be a temporary measure. It must only remain in place until the hazard is eliminated, or the potentially dangerous situation is rectified.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

			• A barricade must present a sturdy physical barrier to entering an area. Therefore, plastic cones, post and chain systems, "danger tape" and "snow netting" will not be accepted as barricading and may only be used for the purposes of low-risk demarcation.
			• For example, snow netting may be used for the demarcation of lay down areas.
			• Acceptable forms of barricading include:
			  • Hoarding panels (no less than one metre in height) that can be securely fastened together to form a fence line may be used. Hoarding panels may be constructed from a variety of materials (e.g. wooden board, steel sheeting, wire mesh on a steel frame, etc.)
			  • Wire mesh fencing (no less than one metre in height with sturdy posts spaced at intervals of no more than 3 metres) may be used in certain circumstances, e.g. Around excavations.
			  • Sturdy, rigid, and securely fixed (i.e. bolted, welded, clamped, etc.) Metal guard rails may be used, particularly for protecting openings, holes and edges associated with floors, platforms, walkways, etc. The top rail must be positioned at a height of one metre above the working surface, and a mid-rail must be provided.
			  • Concrete Jersey barriers must be used for the routing of traffic and when work is being conducted in or alongside a roadway.
			• Regardless of the type of barricade used, the following requirements must be met:
			  • The installation, alteration and removal of barricades must be supervised by a competent person.
			  • The barricading must be uniformly and intelligently configured;
			  • The barricading must be stable, conspicuous and effective;
			  • The barricading must surround the work or hazardous area;

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

			• General access requirements around the work or hazardous area (such as pedestrian walkways, operational access, or general thoroughfares) must be taken into consideration when erecting a barricade. • The extent of the area that is barricaded must be kept to a minimum so as not to unnecessarily restrict access to other areas. If access routes to other areas are blocked by the barricade, alternative routes must be identified and signposted • All barricaded areas must have properly designated points of entry and exit for persons and / or vehicles. Each pedestrian access point must be fitted with a self-closing gate. A sign indicating, "DESIGNATED ACCESS POINT – AUTHORISED PERSONNEL ONLY", must be fitted to each gate. • Additional signage providing warning of specific hazards (e.g., falling objects, electricity, etc.) Including, "NO UNAUTHORISED ENTRY", must be attached to all gates and, where required, to the barricading itself. The signage must be visible from all angles and must be large enough to be read from 10 metres. • Barricading must always be clearly visible (day and night). If necessary, flashing warning lights must be used. • Tags must be attached to the barricading displaying the name and cell phone number of the person responsible for the barricade and specifying the reason for the barricading and the date on which it is scheduled to be removed. • Should a person require access to a barricaded area, authorisation must be obtained from the person responsible for the erection of the barricade. The hazards that are present and the Personal Protective Equipment that must be worn within the barricaded area must be communicated to the person seeking access.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

			• Each barricade must be listed in a register, and each must be inspected daily to ensure that it is still intact and that its positioning is still effective. • All barricades must be properly maintained and repaired as required. • When the work has been completed and the hazard has been eliminated, all barricading must be removed without delay. A barricade may not be left in place if no hazard exists. • Before a barricade is removed (allowing general access), the area must be inspected by the person responsible for the work that was carried out, to ensure that the area is once again safe. If applicable, the person accepting the area back for general use shall do so on completion of his own safety inspection. • Authorisation to remove (or modify) a barricade may only be granted by the person responsible for the erection of the barricade.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

12.	Excavations	The Contractor may create excavations that does not comply with applicable legislation and Transnet Standards.	• All applicable legislation concerning excavation work must be always complied with.
			• Each contractor carrying out excavation work on the project site(s) must develop, document and implement Safe Work Procedures that are aligned with the requirements of this standard.
			• All excavation work must be properly planned. Site-specific conditions and hazards must be considered, including traffic, overhead and buried utilities, proximity to nearby structures, soil properties, presence of surface and / or ground water, position of the water table, and weather conditions.
			• Excavation work may only be carried out under the personal supervision of a competent Excavation Supervisor who has been appointed in writing.
			• Before any excavation work is carried out, a Permit to Work authorising the activities must be obtained.
			• Similarly, no person may enter an excavation unless a Permit to Work has been issued providing authorisation for specific tasks to be carried out within the excavation.
			• Before issuing a Permit to Work for excavation works, the Authorised Person (i.e. Permit issuer) must verify that:
			• A detailed Risk Assessment has been conducted for the work to be performed.
			• A Safe Work Procedure is in place; and
			• No buried services are present in the area where the excavation works are to be carried out.
			• As a minimum, the Risk Assessment must consider hazards and risks associated with:
			  • A person being trapped or buried because of an excavation collapsing.
			  • A person being struck by an object falling into an excavation.
			  • A person falling into an excavation.

©Transnet SOC Ltd

			• A person being exposed to a hazardous atmosphere within an excavation (i.e. An oxygen deficiency, explosive or flammable gases, and / or harmful concentrations of a contaminant); • Contact with belowground services; and • Mobile equipment and / or light vehicle movement in proximity to an excavation. On a plan (drawing) of the work area, the contractor must accurately indicate the position and dimensions of each intended excavation in order for it to be determined whether or not buried services would (or may) be encountered, such as electrical cabling, communications cabling, gas, fuel, potable water, fire water, effluent, sewage, or storm water pipelines. In addition to a desktop review of existing drawings, a field survey must be carried out to verify the presence or absence of buried services. The positioning of all known belowground services must be accurately demarcated in the field before any excavation work commences. Should there be any uncertainty, a pipe or cable locator must be used to determine if buried services are present, and if so, the positioning of the services. If buried services are identified (or are suspected to be present) then the excavation plan must be altered if necessary to avoid these services. If the excavation plan cannot be altered, then safe work methods (e.g. careful excavation by hand) must be specified and measures (e.g. Isolation and lockout of the service) must be put in place to minimise risk to personnel and prevent damage to the service(s). Machinery may not be used to excavate material lying within one meter of any belowground service (i.e. Cable or pipe). Excavation work that is carried out must be limited to what is described in the Permit to Work. All controls, precautions and restrictions identified in the Permit to Work (and Risk Assessment) must be strictly observed

©Transnet SOC Ltd

			and fully implemented. The Excavation Supervisor must discuss these controls, precautions and restrictions with all people who will be carrying out the work. All excavation work must be carried out by people who have been trained and are competent to perform the work. All personnel working in or near any excavation must wear high visibility protective clothing. Unexpected structures (e.g., Tanks, brick work, concrete work, etc.) or services (e.g., Cables, pipelines, etc.) As well as unusual conditions (e.g., inconsistent materials, voids, etc.) That encountered during excavation work must be reported immediately. All work must cease until the nominated project management representative provides authorisation to continue. If an excavation is more than 1.2 metres deep and people have to enter it, then the sides of the excavation must be suitably battered, benched, or shored, unless a registered professional geo-technical engineer confirms in writing that there is no risk of the excavation collapsing (i.e., That the sides of the excavation are stable without battering, benching or shoring). If the sides of an excavation are battered (sloped), then this must be done at an angle that is suitable for the given soil conditions (to be determined by a registered professional geo-technical engineer). When it is not possible to batter (or bench) the sides of an excavation to a safe angle, then the sides of the excavation must be suitably shored. Shoring may only be installed, altered or removed under the personal supervision of a competent person using a predetermined safe method. Only approved shoring systems and equipment may be used. Shoring requirements must always be determined and designed by a competent person for the specific conditions encountered at the excavation site. All material removed from an excavation (spoil) must be placed no closer than three times the depth of the excavation away from the edges of the excavation.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

			The profile of this spoil must be flattened out to prevent the material from being washed back into the excavation by rainwater. Scaling must be carried out on the sides of all excavations to remove loose material. Protective shields or barriers must be erected (when required) between the sides of an excavation and the work area to protect employees from falling, rolling or slumping rocks, soil, or materials. People may not work on the faces (sides) of battered (sloped) or benched excavations at levels above other people. Tools, equipment and materials may not be placed within two metres of the edges of an excavation. Alternatively, a suitable retaining device may be used to prevent tools, equipment and materials from falling, rolling or sliding into an excavation. No vehicle or item of mobile equipment is permitted near the edge of an excavation. Mobile equipment may not operate in or near an excavation whilst people are working within the excavation. To ensure that adjacent structures (such as buildings, walls, or sidewalks) remain stable during excavation work, support systems such as shoring, bracing, or underpinning must be provided if required. Excavation below or near the base or footing of any foundation or retaining wall is prohibited unless: • A support system (designed by a registered professional geo-technical or Structural engineer) is provided, such as underpinning; or • A registered professional geo-technical engineer determines that the structure is far enough away from the excavation that no hazard exists. To prevent persons and / or mobile equipment from accidentally falling into an excavation and to prevent unauthorised entry into an excavation, rigid barricading must be erected around every excavation that is deeper

©Transnet SOC Ltd

			than 500mm. Warning signage must be prominently displayed and, if necessary, flashing warning lights must be used at night. The barricading must remain in place for as long as the hazard (i.e., the excavation) exists. Sections of barricading around an excavation may only be removed (and then only temporarily) to enable excavation work to continue (refer to the Barricading Standard). For each excavation more than 1.2 metres deep, safe means of access and egress (e.g., Ladders, steps or ramps) must be provided for people working on the excavation. Safe entry and exit points must be located every 15 metres along the side(s) of an excavation (i.e., an exit point must not be more than 7.5 metres away from any person working on the excavation). If a hazardous atmosphere exists within any excavation (i.e., an oxygen deficiency, the presence of explosive or flammable gases, and / or harmful concentrations of a contaminant) or if there is a possibility that a hazardous atmosphere may develop, then the excavation must be declared a confined space. Furthermore, an excavation must be considered a confined space if any risk of entrapment or engulfment exists. If an excavation is declared a confined space, then all precautions and requirements pertaining to confined spaces must be implemented and complied with (refer to the Confined Spaces Standard). Internal combustion engines may not be used in or near the edge of an excavation unless the exhaust emissions are ducted away, or suitable mechanical (forced air) ventilation is used to maintain a safe atmosphere within the excavation. Any water and / or sludge present within an excavation must be removed completely before any work commences in the excavation. Using ditches, dikes, sumps and pumps, or other suitable means, surface water must be prevented from entering an excavation and areas lying adjacent to an excavation must be adequately drained.

©Transnet SOC Ltd

			If equipment is used to prevent water from entering an excavation or to prevent water accumulation within an excavation, then the equipment must be monitored by a competent person to ensure that it remains operational and effective. Suitable lighting must be provided in and around any excavation in which work must be carried out at night. A high standard of housekeeping must be maintained in and around all excavations. Tools that are not in use, and materials that are no longer required, must be removed from an excavation to prevent these items from causing injury or being lost (buried). A register for all excavations must be compiled and maintained. A competent person (i.e., an appointed Excavation Supervisor) must inspect each excavation as well as the areas around it: • At the start of each day (or shift) before work commences within the excavation. • After any alteration is made to the excavation or shoring. • After rainfall. • After any blasting activity carried out in the vicinity of the excavation; and • After any event that may have affected the strength or stability of the excavation or the shoring. An excavation must be inspected for collapses, signs of instability, failures or signs of overloading of protective systems and equipment, hazardous atmospheres, water accumulation, and any other hazardous condition that may arise. The sides of an excavation as well as the surface of the ground around the excavation must be carefully inspected for signs of instability including fissures (cracks), slumping, and bulging. Shoring must be carefully inspected for signs of overloading (e.g., Distortion).

©Transnet SOC Ltd

			If a hazardous condition is identified, no person may enter the excavation until suitable corrective actions have been taken and / or suitable controls have been put in place to either eliminate the hazard or reduce the risks to acceptable levels. A record of each inspection (including date, time, findings, and signature of the Excavation Supervisor who carried out the inspection) must be captured in the excavations register. Each inspection record must include a declaration as to whether the excavation is safe to work in or not. All excavations must be monitored closely throughout each workday (or shift) by the Excavation Supervisor. If an excavation has been declared a confined space, a safety observer (who will be able to initiate emergency response procedures if required and identify the location of any trapped or buried persons in the event of a collapse) must be stationed at ground level outside of the excavation whenever work is being carried out in the excavation. If a hazardous condition is identified while work is being carried out in an excavation, then all persons in the excavation must be evacuated to safety without delay. Under no circumstances may a person work alone on an excavation that is more than 1.2 metres deep without at least one other person being present in the immediate vicinity of where the work is being carried out. Excavations must be backfilled as soon as possible, and the material used (usually the original material) must be properly compacted. Where belowground services are present, the material used to backfill an excavation must be such that the services will not be damaged. A layer of a material that is dissimilar to the general backfill material must be placed immediately above any buried service. An excavated area must be restored to its original condition if possible.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

13.	Mobile Equipment and Light Vehicles	Mobile Equipment and Light Vehicles does not comply with applicable legislation and Transnet Standards.	All Contractors must ensure all applicable legislation concerning mobile equipment and light vehicles are always complied with. Each contractor must provide evidence to the nominated project management representative that all light vehicles and mobile equipment to be used on the project (including, but not limited to, lift and carry cranes (or mobi-lifts), mobile cranes, forklifts, mobile elevating work platforms (e.g. Cherry pickers), tractors, dozers, dump trucks, haul trucks, graders, excavators, loaders, back-actors, drill rigs, and road-going cars, light delivery vehicles, and trucks) comply with the requirements of all applicable legislation. This evidence must be provided prior to the equipment being brought onto the project site. The contractor remains responsible for meeting this requirement even if the equipment to be used is leased or provided by a sub-contractor (i.e., not owned directly by the contractor).
14.	Training and Licensing	Light vehicles drive and mobile equipment operated by incompetent person/s	No person may drive a light vehicle or operate an item of mobile equipment unless he has been trained, tested and found competent, or is currently licensed to drive or operate that specific vehicle or item of equipment. The training must address hazards and risks assessed for: • That vehicle; and • The tasks for which it is to be used.
15.	Road Management	Non - compliance with applicable Road and Traffic legislation and Transnet Specifications	Design, inspection and maintenance requirements must be in place for all roadways. Every haul road must have two dedicated and clearly demarcated lanes so that vehicles travelling in opposite directions are safely separated (lane demarcation is not applicable to dirt roads). Systems (such as safety berms) must be in place along roadways and around excavations, dump areas. To prevent vehicles from leaving a roadway or entering a dangerous area. A storm water management plan must be in place for the site and for all roads. Extreme wet weather must be considered. Contractors must ensure that all roads are equipped with drainage system. Roads with high risks activities and traffic interface shall be controlled by trained flagman

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

			A dust control plan must be in place for the site and for all roads. Where required, contractors must ensure that roads are wet (using a water cart) at regular intervals and whenever instructed by a nominated project management representative. The over-watering of roads must be prevented. No road may be closed without permission from a nominated project management representative. Any large rocks in a roadway must be removed immediately. Any spillage in a roadway must be cleaned up immediately. Ground pollution (e.g., Oil, diesel or hydraulic fluid spillages) must not, and will not, be tolerated. If substances are spilled on a road or any other portion of the site, the contaminated ground must be dug out, and the resulting hole backfilled with clean material which must be suitably compacted. The contaminated soil must be disposed of as required by the applicable legislation.
16.	Electrical Safety	Contractor personnel may not comply with all statutory requirements, codes, design criteria and safety standards applicable to the project.	All electrical work must be carried out by competent personnel in accordance with all legal requirements, codes, design criteria and safety standards applicable to the project.
17.	Electrically Powered Tools/ Hand tools	Contractor personnel may not comply with all TNPA safety standards.	All powered hand tools, such as circular saws, drills, chainsaws, percussion tools, jigsaws etc., must be equipped with a constant pressure switch that will shut off the power when the pressure is released. (Exception: this requirement does not apply to concrete vibrators, concrete breakers, powered tampers, jack hammers, rock drills, and similar hand operated power tools). Electrical power tools must be of the approved double-insulated type. The electric cord, pneumatic or hydraulic supply line of powered tools must not be used for hoisting or lowering of the tool. lose clothing, jewelry or gloves that could get caught in the tool must not be worn when operating powered tools. Operators of powered tools who have long hair must keep their hair tied up.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

			The power source must be disconnected from the tool before making any repairs, servicing, adjustments, or replacing attachments such as drill bits.
18.	Personal Protective Clothing and Equipment	Contractor personnel may not comply with all statutory requirements, TNPA safety standards.	All applicable legislation concerning Personal Protective Equipment (PPE) must be always complied with. As a minimum, the following PPE must be worn by all people (always including visitors) whilst on a project site: • Safety footwear with steel toe protection. • Safety glasses (individuals who wear prescription spectacles must be provided with either over-spec safety glasses or prescription safety glasses). • Safety helmet (hard hat); and • High visibility protective clothing with reflective taping (long trousers and long-sleeved shirts with collars and cuffs). • Additional PPE requirements must be determined through hazard identification and risk assessment. This hazard-specific PPE (such as hand protection, hearing protection and respiratory protection) must be worn as required (e.g., when in a certain area, when performing a certain task, or when working with a certain substance). • The correct PPE must always be worn: • In accordance with site requirements (as indicated at the entrances to a project site and at the entrances to buildings and / or designated areas on the premises); • In zoned areas (e.g., noise zones and respirator zones); or • As required by a Safe Work Procedure, a risk assessment, or a Material Safety Data Sheet (MSDS).
19.	Sun protection	The contractor may not ensure that all personnel are protected in sunlight/UV Radiation	The contractor must ensure that all personnel are protected in sunlight using long-sleeved shirts, long trousers, health and safety to safety helmets and UV factored sunscreen. Shade structures must also be made available to all employees.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

			The contractor must conduct training and awareness sessions with his employees, advising him on the risks associated with working in the heat (including dehydration) and the precautions to be taken (e.g., ensuring adequate fluid intake).
20.	Fuel/ Flammable Liquid Storage and Refueling	Contractor personnel may not store and handle Compressed Gas Cylinders and comply with all TNPA safety standards.	No fuel (diesel, petrol, paraffin, etc.) or any other flammable liquid (paints, solvents, etc.) may be stored on site unless approved in writing by the nominated project management representative. If the on-site storage of a fuel or a flammable liquid is approved, the contractor must ensure the following: • The quantity of fuel / flammable liquid to be stored on site must be kept to the minimum that is required. • The storage area must be in a well-ventilated area at least 10 metres away from any building, drain, boundary or any combustible material. • If more than 200 litres of fuel / flammable liquid are to be stored, the tank must be installed / the containers must be positioned within a bund (see Definitions); • If the fuel / flammable liquid is to be stored in bulk tanks / vessels, then the minimum capacity of the bund must be 110% of the volume of the largest tank /vessel. If many small containers (e.g., 210 litre drums) are to be stored, the bund must be able to contain 25% of the total volume of the stored products. The bund must be impermeable. It must have a solid concrete floor, and the walls must be constructed out of brick and must be plastered on the inside. • The bund must be fitted with a lockable drain valve (for draining away rainwater), which must remain locked in the closed position. The valve may only be opened under supervision and in accordance with a written procedure. • The fuel / flammable liquid storage area may not be used for the storage of any other materials / equipment and must be kept completely free of all combustible materials (including rubbish, brush and long grass) always.

©Transnet SOC Ltd

			• Access to the storage area must be controlled (wire mesh fencing and gate); • Appropriate warning signage (i.e., "Flammable Liquid", "No Smoking" and "No Naked Flames") must be prominently displayed at the storage area. The contents and volume of each tank must be indicated. • To contain spillages, the offloading / refuelling bay at the fuel / flammable liquid storage area must have a solid concrete base surrounded by bund walls, ramps or humps and / or spill trenches (covered with steel grating) that lead into a sump. • Fuel dispensing pumps must be protected against impact damage. • All fuel / flammable liquid storage tanks and dispensing equipment must be electrically bonded and properly earthed. • All electrical installations and fittings must be of an approved intrinsically safe type. • Two 9kg dry chemical powder fire extinguishers must be mounted in an easily accessible position near the entrance gate to the fuel / flammable liquid storage area. Depending on the size of the storage area, additional fire extinguishers may be required to ensure that an extinguisher is no further than 15 metres away from any point on the perimeter of the storage area. • A fire extinguisher must be at hand wherever refuelling is carried out. • Smoking or open flames within 10 metres of a fuel / flammable liquid storage / refuelling area is strictly prohibited. • No petrol- or diesel-powered vehicle or equipment may be refuelled while the engine / motor is running. • Cellular phones must be switched off in fuel / flammable liquid storage / refuelling areas. • Spill clean-up kits (containing a suitable absorbent fibre product) must be provided. • Any spillages must be cleaned up immediately and all contaminated cleaning materials must be disposed of in accordance with the applicable legislation.

©Transnet SOC Ltd

			• If a flammable liquid is spilt or is leaking from a container / vessel, the area must be cordoned off, and appropriate warning signage must be displayed to keep unauthorised personnel away from the affected area. Every effort must be made to contain the spillage. All hot work in the vicinity must be stopped immediately. If the spilt product is volatile and the possibility exists that a vapour cloud may form, or if the leak or spillage cannot be contained or stopped, then appropriate emergency response procedures must be activated (refer to Section 14) including the evacuation of all persons in the vicinity. Suitable firefighting equipment must be positioned ready for use should the spilt product ignite. • The manual decanting of fuel or a flammable liquid from a large container should only be done using a stirrup pump (or similar) or a purpose-made frame which allows the container / drum to tilt for decanting and then return to the upright position. • Drip trays must be used wherever required. • All tanks, drums, cans, etc. containing flammable liquids must be tightly closed and properly sealed except for when a container is being filled or when a product is being decanted. • The transport or storage of corrosive or flammable liquids in open containers is strictly prohibited • Daily-use quantities of fuel (up to a maximum of 20 litres) must be handled in an approved safety can with a flash arresting screen, spring closing lid and spout cover that will safely relieve internal pressure if the can is exposed to fire. • Where safety cans may be impracticable, only approved metal containers with screw caps may be used. Each container must be clearly labelled to indicate its contents. • Only small quantities of flammable liquids (paints, solvents, etc.) may be stored within a building. Each product must be kept either in its original container or in an approved container which must be properly sealed. Each container must be clearly labelled to indicate its contents. When not in

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

			use, all such containers must be stored in a well-ventilated steel cabinet which must be kept locked to prevent unauthorised access. • Not even small quantities of flammable liquids may be stored or dispensed in buildings or places of public assembly, in general warehouses, or in buildings containing sources of ignition such as space heaters, cooking devices, open electric motors, motor vehicles, or where welding, cutting, or grinding activities are being carried out. • Safe Work Procedures must be compiled for the transportation (including delivery), offloading, storage, handling and use of any fuel / flammable liquid on site. • All personnel that will be required to work with or may encounter a flammable liquid must be made aware of the hazards associated with the product and must be thoroughly trained in the safe transportation, use, handling and storage thereof.
21.	Fire Protection and Prevention	Contractor personnel may not store and handle Compressed Gas Cylinders and comply with all TNPA safety standards.	The contractor must compile a Fire Protection and Prevention Plan for the work that will be carried out on site.
22.	Smoking	The contractor may not restrict smoking on site within designated smoking areas selected in accordance with the applicable legislation.	The contractor must not permit smoking on site except within designated smoking areas selected in accordance with the applicable legislation. Such an area must be clearly demarcated, and the required signage must be displayed. Any person found smoking or discarding a cigarette but outside of a designated smoking area may be removed (temporarily or permanently) from site.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

23.	Housekeeping	The contractor may not maintain work areas in a tidy state, free of debris and litter.	The contractor must maintain all work areas in a tidy state, free of debris and rubbish. Unless directed otherwise, the contractor must dispose of all debris, rubbish, spoil and hazardous waste off site in a designated and authorised area or facility. The contractor must familiarise health and safety with the waste management plan for the site including collection and disposal arrangements and must align his waste management activities accordingly.
24.	Stacking and Storage	Contractor personnel may not comply with all TNPA safety standards.	All irregular shaped items will be stacked at floor / ground level in designated stacking areas on a level, firm base capable of withstanding the weight of the commodities being stacked and stacked in such a manner that the items do not topple over or change position due to subsidence or weight transfer when being moved. Where these commodities are stacked on shelves or racks, the shelves or racks must be designed to carry the weight of the commodity being stacked. All racks or shelves where heavy material or commodities are stacked will have a weight carrying limitation clearly marked on the structure and have a safety factor of at least +10% of maximum total carrying capacity. All materials, commodities or articles, which could be damaged due to inclement weather, must be stored under cover. Waste material that is combustible must not be allowed to accumulate in sufficient quantities to create a hazard. No commodities or equipment may be stacked or stored within 500mm of rolling stock tracks or where mobile equipment travels. The storage of material, small equipment, tools, files and general items in cupboards and on shelves must be neat and always controlled. Incompatible substances must not be stored in or on the same cupboard or shelf. No equipment, tools, files or documents may be stored or stacked on top of cupboards which are higher than 1.5 metres in height.
25.	Facilities	Contractor personnel may not comply with all Statutory requirements –	Sanitary conveniences must be provided and maintained at a rate of at least one shower facility for every 30 workers, at least one toilet facility for every 20 workers, separate male and female changing facilities and sheltered eating areas. (Check SANS 10400 Part F).

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

		Facilities Regulations and TNPA safety standards.	
26.	Hazardous Chemical Substances	Hazardous chemical substances may be brought onto site and has not have been approved for use by the nominated project management representative.	No chemical substance may be brought onto site unless it has been approved for use by the nominated project management representative and it appears on the Approved Chemical Substances Register which will be made available to all contractors. The register will contain the following information: • Trade name / product name of substance. • Manufacturer / supplier of substance. • Maximum inventory. • Storage requirements and precautions. • Inventory of special emergency items held for handling spillages, fires, etc. (e.g., reagents to neutralise spillages, firefighting foam, etc.); and • Approved disposal methods.
27.	Fitness to Work	The contractor may not have a programme to manage employee fitness for work.	The contractor must develop and implement a programme to manage employee fitness for work. All employees working on site for whom the contractor is responsible (i.e. direct employees of the contractor as well as the employees of any appointed sub-contractors) must be subject to this programme.
28.	Temporary Works	A contractor must appoint a temporary works designer in writing to design, inspect and approve the erected temporary work on site before use	A contractor must appoint a temporary designer in writing to design, inspect and approve the erected temporary work on site before use.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

29.	Structures	A contractor may not take steps are taken to prevent the uncontrolled collapse of any new or existing structure or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work	A contractor must ensure that, all reasonably practicable steps are taken to prevent the uncontrolled collapse of any new or existing structure or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work.
30.	Emergency Response and Preparedness	The contractor may not develop, implement, test and maintain an Emergency Response Plan	The contractor must develop, implement, test and maintain an Emergency Response Plan (incorporating emergency evacuation procedures) that focuses specifically on the contractor's team and work activities. The plan must be risk-based and must detail the procedures that must be followed when responding to all potential emergency scenarios such as a medical emergency (including first aid response), a fire, an explosion, a hazardous substance spill, flooding, rescue from height, rescue from a confined space, etc.
31.	First aid and First aid kits	The contractor may not have trained and appointed First Aiders. A suitable first aid kit (i.e., appropriate to the level of training) must be readily available to each First Aider. All kits must be provided and maintained by the contractor.	The contractor must ensure that First Aiders are trained and appointed as described in (Section 9.5) A suitable first aid kit (i.e. appropriate to the level of training) must be readily available to each First Aider. All kits must be provided and maintained by the contractor.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

32.	Audits and Inspections	The Contractor may not carry out internal health and safety inspections as follows: • General site health and safety inspections daily; and • Inspections of plant, tools and equipment prior to establishment or use on site, and at least monthly thereafter.	The contractor must establish and maintain programmes for measuring and monitoring HEALTH AND SAFETY performance on a regular basis. Metrics must include leading and lagging indicators and be based on qualitative and quantitative data. On a monthly basis, the health and safety management system and workplace activities of the contractor will be audited by a Project Health and Safety Advisor to assess compliance with the project health and safety requirements. Any deviation from these requirements (i.e., non-conformance) that places the health or safety of any person in immediate danger will result in the specific activity being stopped until the non-conformance is corrected. For each non-conformance determined during any audit, the contractor must identify and implement appropriate corrective actions. For each corrective action, a responsible person must be designated and an appropriate timeframe (target date) for completion of the corrective action must be specified. Progress on implementing corrective actions (i.e., closing non-conformances) must be monitored and reported on. The implementation of corrective actions will be verified during the monthly audits. Should it be determined that the contractor's level of compliance is unsatisfactory, all work being performed by the contractor on the project site may be stopped (at the contractor's expense) until an investigation into the reasons for the poor performance has been carried out, a corrective action plan has been developed, and corrective actions have been implemented. In addition to the audit carried out by the Project Health and Safety Advisor, the contractor must carry out an internal audit monthly to assess compliance with the project health and safety requirements (including the requirements of this specification and the contractor's Health and Safety Management Plan). Furthermore, the contractor must ensure that each appointed sub-contractor is audited and measured to the same standard. Copies of these audit reports must be submitted to the Project Health and Safety Advisor monthly.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

			The contractor must carry out internal health and safety inspections as follows: • General site health and safety inspections daily; and • Inspections of plant, tools and equipment prior to establishment or use on site, and at least monthly thereafter. All audits and inspections must be carried out by competent people who have been appointed in writing. A schedule of planned audits and inspections must be compiled and maintained ensuring that: • All work areas and all activities are covered at regular intervals. • All applicable legal requirements are complied with; and • Areas or activities with significant associated hazards or risks receive greater attention.
33.	Occurrence reporting and investigation	The contractor must establish a procedure for the management of all health and safety incidents.	The contractor must establish a procedure for the management of all health and safety incidents. This procedure must define the responsibilities, methodologies and processes that must be followed for: • Reporting an incident. • Investigating an incident. • Analysing an incident to determine the root cause • Identifying and implementing corrective actions to prevent a recurrence; and • Communicating information concerning an incident to relevant persons and / or groups.
34.	Covid 19 Compliance	Exposure Hazardous Biological agent (Covid 19)	The contractor is to implement occupational health and safety measures to (reduce and eliminate) the escalation of COVID-19 infections in workplaces as set out in the Schedule adopted by the Minister of Employment and Labour, in terms of Regulation 10(8) of the National Disaster Regulations (Act No. 57 of 2002) and comply to all COVID-19 related guidelines issued by the government in this regard.
35.	Hazardous Biological Agents	Exposure Hazardous Biological Agent (other than Covid 19	The Contractors employees may occasionally work on sewage lines and clogged toilets, conduct maintenance and repairs on sewage pumps which expose them to Hazardous Biological Agents.

©Transnet SOC Ltd

Safety, Health, and Environment (SHE) Baseline Risk Assessment Analysis

COMPILED BY RISK SPECIALIST: Philani Mbhele  **DATE: 18/09/2026**

SIGNATURE

REVIEWED BY PROJECT MANAGER: Asanda Dube  **DATE:** 18/09/2026

SIGNATURE

APPROVED BY Deputy PORT ENGINEER: Dumisani Mkhize  **DATE:** 18/09/2026

SIGNATURE

©Transnet SOC Ltd