

FEL- 3 SHIP REPAIR: BASELINE RISK ASSESSMENT
REPLACEMENT OF THE STURROCK DRY DOCK INNER CAISSON GATE

SIGNATORIES:

Prepared by: _____
Ms. Jeanette Ramatapa
SHE Specialist Port of Cape Town
Date

Amended by: _____
André Burger
PrCHSA – E&A
Date

Approved by: _____
Mr. Lebogang Tlhabatlhaba
Project Manager: Port of Cape Town
Date

Rev No.	Date	Revision Details
00	2018-08-06	ISSUE FOR APPROVAL
01	2020-03-30	Draft Issue from E&A
02	2020-04-21	Revised as per Client comments
03	2020-05-19	Added COVID-19

BASELINE RISK ASSESSMENT REPLACEMENT OF THE Sturrock Dry Dock INNER CAISSON GATE

Item No.	Activity/Hazard	Danger	Mitigation Measure
1	<p>Construction works taking place within the dry dock</p> <p><i>Modular launching of the two parts at Synchrolift would be hazardous</i></p>	<p>Incidents and spillages cause by activities within the dry dock</p>	<ul style="list-style-type: none"> • Construction zones to be effectively separated from other harbor activities by means of hoarding at 2.0m heights with controlled access points. Ready fence or similar panels will be deemed acceptable. • All directs neighbours of the site to be constantly informed if and when Section 9 activities will affect them and what precautions will be required between the various role-players. • The Contractor is to ensure that all access to and from the site is carefully monitored and controlled. The traffic management plan needs to be clearly developed by the PC and submitted to the engineers for approval. • All stakeholders to be informed about the standard operating procedures and regulations of the port. The Contractor is to ensure that all stakeholders abide to these procedures and regulations when working within the boundaries of the port. • Documented safe systems of work, project safety standards and safety procedures shall be developed by the Principal Contractor.
2	<p>High risk man-machine interfaces and high risk construction-operation interfaces</p>	<p>Temporary site closure due to incident investigations if fatalities occur</p>	<ul style="list-style-type: none"> • Clear separation between public and other dock patrons and the construction activities by means of hoarding and controlled access as per Transnet specifications. • All incidents will be dealt with in accordance with TNPA Emergency management (EM) which details all

			<p>activities and risk management measures related to, preparedness prevention and mitigation, response and recovery.</p> <ul style="list-style-type: none"> • A Project wide procedure for management of incidents/emergencies will be developed and implemented for the execution phase of the Project.
3	Caisson fire prevention measures insufficient.	Site closure due to risk of injuries, damage to Transnet assets, as well as risk of standing time arises	<ul style="list-style-type: none"> • Engineering in design to incorporate the fire prevention mechanism and fire protection design specifications. • Only after construction and commissioning
4	Noise and dust pollution not included in engineering design, affecting Health & Safety	There is a risk of litigation on environmental issues.	<ul style="list-style-type: none"> • Planning and designing for Health and Safety and also to consider environmental and community (HSEC) issues by the design team during the design phases and residual risk to be managed by the contractor concerned. • All environmental issues should be included in the engineering specification when in design phase.
5	Engineering design not incorporating 'safety in design' checklist.	This could lead in incidents and fatalities	<ul style="list-style-type: none"> • TNPA with the assistance from the a appointed Safety Agent to develop a safety in design checklist which engineering shall incorporate in their design
6	Emergency and disaster response too lengthy or insufficient - increased damage & injuries	Response during emergencies may take too long.	<ul style="list-style-type: none"> • Emergency response plans will be prepared by the contractor concerned for construction, commissioning, and operation for the Project before each activity begins. • TNPA Project Team will ensure that coordinated plans are prepared by contractors and vendors to cover all activities on the project. • These plans will be prepared in consultation with TNPA Project Team, contractors/vendors and local emergency services. • Cape Town Port Control number 021- 449 2805

7	Testing of the electrical and mechanical equipment without proper procedure.	Working without isolatable equipment can cause severe or fatal injuries	<ul style="list-style-type: none"> The contractor shall ensure that the proper isolation mechanism / procedures are established following the rules "one person, one lock, one key principle. Contractor is going to appoint accredited/competent personnel i.e Electricians, Millwrights to perform work. TNPA staff will have be part of this process Also, the Contractor and TNPA operators need to ensure that the operating procedure manual for all the electrical equipment is available. Certificate of compliance
8	Improper operation of equipment	Injuries to personnel's, Fatalities	<ul style="list-style-type: none"> Proper handover, operational manual and training. TNPA operations personnel to be trained on design specific requirements and controls
9	Back feeding of cables	Electrocution	<ul style="list-style-type: none"> Ensure that all ends of ring networks are isolated and earthed and lock out system is in place
10	Working in a confined space	Working in a confined space can leads to fatality due to oxygen deficiency around the area	<ul style="list-style-type: none"> The Contractor needs to obtain a written permit for work to be performed in a confined space. Also, the Contractor needs to outline the methodology of work to be performed and ensure that the correct PPE is provided. Implement confine space entry procedure. Provide ventilation where necessary Contractor concerned will have to implement one of the three options on GSR 5
11	<i>Transport of modular parts from boatyard in Paardeneiland (transport plan to be done).</i>	Vehicle incidents/accidents, traffic congestion	<ul style="list-style-type: none"> The contractor to provide traffic management plans and necessary permits required. Loads secured and correctly escorted on public roads in accordance with National Roads traffic Act
12	Uneven surface	Slips and trips	<ul style="list-style-type: none"> Provide signage and work instruction
13	Extreme exposure to noise	Impairment hearing loss	<ul style="list-style-type: none"> Provide earplugs or earmuffs Hearing conservation program required with medical surveillance
14	Faulty Equipment	Injury due to faulty equipment	<ul style="list-style-type: none"> Inspection of equipment prior to use

15	Isolation and earthing	Electrocution of personnel	<ul style="list-style-type: none"> • Temporary installation to have COC prior to use • Following working instruction/ manuals. • Provide PPE. • Earthing of equipment.
16	Poor house keeping	Trips and slips causing injuries	<ul style="list-style-type: none"> • Follow good house keeping • Regular inspections with records
17	Flooding of the dock	Drowning, damage to equipment	<ul style="list-style-type: none"> • Make sure that early warning system are Functional and communicated. • General Safety Regulation 7 to be incorporated as precautions
18	Illumination in low light conditions	Poor visibility leading to injuries and damage to equipment	<ul style="list-style-type: none"> • Provide additional lighting where required
19	Working fall risk positions	Falls, injuries and fatalities	<ul style="list-style-type: none"> • Contractor should provide fall protection plan
20	Standing under the suspended load	Employees involved or working around the lifting operation may find themselves working under the load which may results in fatalities	<ul style="list-style-type: none"> • The contractor shall ensure that the risks associated with lifting equipment have been assessed and suitable safety control measures are established either; <ul style="list-style-type: none"> ○ Under a lifting plan, taking into account the lift method, equipment, responsibilities and communications (typical for higher risk or more complex lifts involving specialized equipment) or ○ Under an approved work method, work procedure or instruction (typically for routine lifts of low or insignificant risk) ○ Other people involved in the lifting operation (e.g. riggers of the load) are competent and authorized for the lifting equipment and lift method to be used. ○ The lifting equipment is fit for the purpose in terms of its design, load capacity, condition and test status. Consult the crane manufacturer for lifting procedures and crane limitations

21	Poor maintenance and operation of construction equipment	This could lead to various environmental, operational and H&S Risks	<ul style="list-style-type: none"> Contractor to develop a maintenance plan according to their operational requirements
22	Extreme weather conditions may present dangerous working conditions or unfavorable construction condition.	Project may be delayed, leading to an extended project schedule and people may be injured	<ul style="list-style-type: none"> Allow for inclement weather within specified conditions of the contract
23	Heavy lifting including parts that needs to be removed and reinstallation of refurbished parts	Leading to equipment failure/ rigging failure/injury inspected and load tested.	<ul style="list-style-type: none"> Lifting and Rigging procedure to be drafted by PC The tenderers to supply a rigging study for a typical lift as part of their returnable documents Competent persons to be utilized as riggers and crane operators. Lifting equipment inspections and load testing to be undertaken by registered LMI (Lifting machine inspector) Safe work zones to be created around lifting areas by means of barriers Guide ropes to be utilized for all lifts. Rigging study to be prepared for all lifts exceeding 3 ton , tandem or critical lifts No overhead lifting to be allowed All equipment utilized to be pre inspected and load test
24	Working along the quay side (2m from edge)	Drowning and fatalities	<ul style="list-style-type: none"> TNPA to conduct site specific induction. Provide life jackets as well as rescue equipment
25	Shear height difference between dry dock floor and harbor surface	Persons working too close to the edge can fall to the dry dock floor below	<ul style="list-style-type: none"> The risk assessment section of the fall protection plan to detail activities of this nature location specific with mitigation measures All employees that will be at a fall risk to be issued with a fall risk tag on forearm
26	Vehicle/moving plant/Traffic Management	Injuries	<ul style="list-style-type: none"> Traffic management plan to be developed. Pedestrian traffic should be separated from plant traffic through safe work zoned created with barricading.

			<ul style="list-style-type: none"> • Safety signage should be placed in areas where plant will be utilized warning pedestrians about the danger. • Spotters to be utilized for vehicle reverse movements
27	Hot work leading to injury, fire, damage	Fire damage , serious injuries, death	<ul style="list-style-type: none"> • Hot work permit system to be developed • All hot work to be completed making use of the permit system • Competent persons to be utilized for all hot work. • Method statements to be drawn up and approved for all hot work. • Task specific risk assessment and fire plans to be drawn up for all hot work taking place. • Payment of permit must be made to TNPA Fire department • Principle contractor needs to have quality control measures including their own hot works permitting system. The Principle contractor also needs to abide by the TNPA Fire department permitting system and allow for the cost of this permit application process per activity type and risk level. This includes informing the fire chief about all actions.
28	Improper handing over of the Caisson Gate	Lead to personal injuries, fatalities and structural damage	<ul style="list-style-type: none"> • Proper hand over of the caisson gate with operational manual. • Training to the user of the Caisson gate • Maintenance plans developed by end user • Incorporate Construction stage consolidated H&S files
29	Welding is identified as a dangerous procedure	Fire and lack of oxygen to welder	<ul style="list-style-type: none"> • The vapours omitted in confined spaces as well as the fire risk must be evaluated and controlled at task specific risk assessment by the contractors undertaking these activities
30	Temporary works design will be done by the fabricator and reviewed by Naval Architect.	Collapse of the structure during assembly due to inadequate temporary works could result in loss of life	<ul style="list-style-type: none"> • The temporary works designer appointed must adhere to CR6

31	The loading the structure can take	Fatal or serious injury and major plant damage costs	<ul style="list-style-type: none"> • The loading is detailed in the Design Basis AURECON • As modular assembly will be implemented it is paramount that the engineers be consulted as the what loads can be supported by the structure at any particular point of partial assembly • Constructability sequences and procedures must be workshopped and agreed upon with the designers
32	Towing partly assembled structure from Syncrolift to Sturrock by sea	Drowning and serious property damage	<ul style="list-style-type: none"> • Use of certified sea vessels • Port authority rules and procedures • Harbour Master permission required • PC to supply method statement and safe work procedure • Engineers to advise on attach points and loads the structure can handle
33	Sandblasting in harbour area	Dust pollution	<ul style="list-style-type: none"> • Engineering controls to be used to minimize airborne particles • Designers to consider sandblasting and painting at factory
34	Pouring Concrete	Hazardous chemical as well as logistics of pouring in situ	<ul style="list-style-type: none"> • MSDS for cement as well as other chemicals required as well as risk assessment ito HCSR 5(3) • Pouring by pump or crane will require separate hazards that will have to be assessed by the contractor
35	All construction stage activities	COVID-19 exposure and contamination	<ul style="list-style-type: none"> • All parties to comply with National disaster management Act 29/04/2020 as ammended • All employers to comply with Dept of employment and Labour 29 April 2020 as ammended • Development and approval of COVID – 19 readiness plans requirements to be listed in H&S Spec



**HEALTH AND SAFETY SPECIFICATIONS
STURROCK DRY DOCK - PORT OF CAPE TOWN**

SIGNATORIES:

Prepared by: _____
 André Burger
 OHS Agent
 Date _____

Reviewed by: _____
 Health and Safety Practitioner
 Date _____

Reviewed by: _____
 Health and Safety Specialist
 Date _____

Approved by: _____
 SHE Manager
 Date _____

01	2020-06-05	Draft issued for comment
00	2019-08-26	ISSUE FOR APPROVAL
Rev No.	Date	Revision Details

FOREWORD

These health & safety specifications have been compiled in terms of the Occupational Health & Safety Act no. 85 of 1993 and its Regulations as amended, in particular the Construction Regulations 2014.

It must be clear that this document is a management tool and should be used by the Principal Contractor and Contractors in order to comply with the aforementioned Act and Regulations.

Should there be any contradiction between this document and the Act, the Act must take preference except where explicitly stated otherwise.

Similarly where this document is silent on a specific health & safety requirement, the Act must be used as the minimum requirement.

Should you be unclear about anything set out in this document, please contact this office.

Some guidelines wrt COVID19 has been included; however compliance with the National Disaster management Act and DOL Regulations in this regard must be complied with during the various alert levels as amended from time to time.

Ensuring you of our best intensions and service at all times.



André Burger

Occupational Health and Safety Agent

SACPCMP – PrCHSA/028/2015

The first mention of Occupational Safety can be found in the Old Testament:

Deu 22:8 “When thou buildest a new house, then thou shalt make a battlement for thy roof, that thou bring not blood upon thine house, if any man fall from thence.”

Table of Contents

FOREWORD..... 2

1. INTRODUCTION AND BACKGROUND..... 8

 1.1 Background to the Health and Safety Specification 8

 1.2 Responsibility and Accountability10

 1.3 Purpose of the Health and Safety Specification.....10

2. SCOPE..... 11

 2.1 Proposed Construction methodology11

3. INTERPRETATIONS AND RESPONSIBILITIES 12

 3.1 Definitions 12

 3.2 Responsibilities.....16

 3.2.1 TNPA Department shall:..... 16

 3.2.2 The TNPA Project Manager shall:17

 3.2.3 TNPA Rules of Conduct17

 3.2.4 Duties of Designers18

 3.2.5 Client/Contractor shall:24

 3.2.6 Other Joint Responsibilities.....25

 3.2.7 Duties of Manufacturers and Suppliers (Section 10 of the OHS Act)25

 3.2.8 Pricing for Occupational Health & Safety Compliance25

 3.2.9 Other Requirements26

4. MINIMUM ADMINISTRATIVE REQUIREMENTS26

 4.1 Application for a work Permit (CR 3)26

 4.2 Notification of Construction work (CR4).....28

 4.3 Permit to work (TNPA).....28

 4.4 OHS Act Legal Appointments.28

 4.5 Competency for Contractor’s Appointed Competent Persons.....29

 4.6 Compensation of Occupational Injuries and Diseases Act 130 of 1993(COIDA)....29

 4.7 Occupational Health and Safety Policy29

Health and Safety Specifications

April 2020

4.8	Health and Safety Organogram.....	30
4.9	Preliminary Hazard Identification and Risk Assessment and Progress Hazard	30
4.9.1	Identification and Risk Assessment	30
4.9.2	Baseline Risk Assessments	31
4.9.3	Task-Based Risk Assessments.....	32
4.9.4	Pre-Task Hazard Assessments	33
4.10	Health and Safety Representative(s)	34
4.11	Health and Safety Committees.....	34
4.12	Health and Safety Training	35
4.12.1	Induction.....	35
4.12.2	Awareness	35
4.12.3	Competency.....	35
4.13	General Record Keeping.....	35
4.13.1	Inspection of equipment and tools	36
4.14	Health & Safety Audits, Monitoring and reporting	36
4.15	Emergency Procedures	37
4.16	Fire Precautions	38
4.17	First Aid Boxes and First Aid Equipment.....	39
4.18	Accident / Incident Reporting and Investigation	39
4.19	Hazards and Potentially Hazardous Situations	40
4.20	Personal Protective Equipment (PPE) and Clothing	40
4.21	Occupational Health and Safety Signage.....	41
4.22	Contractors and their Sub-contractors	42
4.23	Incentives & Penalties.....	43
5.	PHYSICAL REQUIREMENTS	44
5.1	Demolition Work.....	44
5.2	Work in Confined Spaces.....	44
5.3	Fall Protection / Scaffolding / Working in Fall Risk Positions	45

**Health and Safety Specifications****April 2020**

5.4	Edge Protection and Penetrations	46
5.5	Stacking of Materials.....	47
5.6	Hazardous Chemical Substances (HCS).....	47
5.6.1	Handling and storage of HCS.....	47
5.6.2	Labelling of Containers.....	48
6.	PLANT AND MACHINERY	48
6.1	Construction Plant	48
6.2	Pressurised Equipment (PIR) and Gas Bottles	49
6.3	Fire Precautions on construction sites (CR29).....	49
6.3.1	Fire Extinguishers and Fire Fighting Equipment	50
6.4	Hired Plant and Machinery	50
6.4.1	Equipment and machinery.....	51
6.5	Scaffolding / Working at Heights.....	51
6.6	Temporary works	51
6.7	Lifting Machines and Tackle.....	52
6.8	Ladders and Ladder Work	52
6.9	General Machinery.....	52
6.10	Electrical Installation and Machinery (CR 24)	53
6.10.1	Portable Electrical Tools and Explosive Actuated Fastening Devices.....	53
6.10.2	High Voltage Electrical Equipment.....	54
6.11	Public and Site Visitor Health and Safety	54
6.12	Night Work	55
6.13	Transport of workers	55
7.	OCCUPATIONAL HEALTH AND HYGIENE.....	55
7.1	Occupational Hygiene	55
7.2	Occupational Health.....	56
7.2.1	Fitness for Duty.....	56
7.2.2	Health Assessments and Health Monitoring.....	56

Health and Safety Specifications

April 2020

7.2.3	Welfare Facilities	56
7.2.4	Alcohol and other Drugs.....	57
7.2.5	Periodic Medical	57
7.2.6	COVID - 19	57
8.	Diving Work (R41 of 2010).....	62
9.	SECTION 37 AGREEMENTS.....	62
10.	SHE INSPECTIONS	62
11.	SHE COMMUNICATION & AWARENESS	62
12.	INCIDENT AND ACCIDENT REPORTING/ INVESTIGATION	63
13.	INSURANCE	63
14.	SECURITY.....	64
15.	ENVIRONMENTAL REQUIREMENTS.....	64
15.1	Waste Management.....	64
15.2	Dust / Smoke Control	65
15.3	Noise Control	66
15.4	Transportation	66
16.	GENERAL SITE PROCEDURE.....	66
16.1	Site establishment.....	66
16.2	Site Camp.....	67
16.3	Demarcation of the site.....	67
16.4	Handling of waste in site camp	67
16.5	Servicing / Refuelling of Construction Equipment.....	68
16.6	Fuels and Chemicals	68
16.7	Tanker Terminal	69
17.	SITE REHABILITATION	70
18.	MANAGEMENT AND MONITORING.....	70
18.1	General Inspection Monitoring and Reporting.....	70
18.2	Licensing and Permits	71



Health and Safety Specifications

April 2020

19.	ANNEXURE A	73
20.	ANNEXURE B	74
21.	ANNEXURE C	78
22.	ANNEXURE D	82
23.	ANNEXURE E.....	84
24.	ANNEXURE F.....	97
25.	ANNEXURE G	98
26.	ANNEXURE H	103
27.	ANNEXURE I	106
28.	ANNEXURE J.....	107
29.	ANNEXURE K	108

DRAFT

1. INTRODUCTION AND BACKGROUND

1.1 Background to the Health and Safety Specification

The Construction Regulations places the onus on the Client to prepare a baseline risk profile and health & safety specifications highlighting hazards not successfully eliminated during design. The Client also has the opportunity to set the tone and standard of occupational health & safety on the construction site.

In terms of Construction Regulation 5(1) (b) of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), TNPA, as the Client, shall be responsible to prepare Health & Safety Specifications for any intended construction project and provide any Principal Contractor who is making a bid or appointed to perform construction work for the Client and/or its Agent on its behalf with the same.

The Client's further duties are as described in The Act and the Regulations made there-under. The Principal Contractor shall be responsible for the Health & Safety Policy for the site in terms of Section 7 of the Act and in line with Construction Regulation 7 as well as the Health and Safety Plan for the project.

This 'Health and Safety Specifications' document is governed by the "Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), hereinafter referred to as 'The Act'. Notwithstanding this, cognisance should be taken of the fact that no single Act or its set of Regulations can be read in isolation. Furthermore, although the definition of Health and Safety Specifications stipulates 'a documented specification of all health and safety requirements pertaining to associated works on a construction site, so as to ensure the health and safety of persons', it is required that the entire scope of the Labour legislation, including the Basic Conditions of Employment Act be considered as part of the legal compliance system. With reference to this specification the requirement is limited to health, safety and environmental issues pertaining to the site of the project as referred to here-in. Despite the foregoing it is reiterated that environmental management shall receive due attention.

Due to the wide scope and definition of construction work, every construction activity and site will be different, and circumstances and conditions may change even on a daily basis. Therefore, due caution is to be taken by the Principal Contractor when drafting the Health and Safety Plan based on these Health and Safety Specifications. Prior to drafting the Health and Safety Plan, and in consideration of the information contained here-in, the contractor shall develop a Risk Assessment Program to identify and determine the scope and details of any risk associated with any hazard at the construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard. This Risk Assessment and the steps identified

Health and Safety Specifications

April 2020

will be the basis or point of departure for the Health and Safety Plan. The Health and Safety Plan shall include documented 'Methods of Statement' detailing the key activities to be performed in order to reduce as far as practicable, the hazards identified in the Risk Assessment.

Every effort has been made to ensure that this specification document is accurate and adequate in all respects. Should it however, contain any errors or omissions they may not be considered as grounds for claims under the contract for additional reimbursement or extension of time, or relieve the Principal Contractor from his responsibilities and accountability in respect of the project to which this specification document pertains. Any such inaccuracies, inconsistencies and/or inadequacies must immediately be brought to the attention of the Agent and/or Client.

TNPA is obligated to implement measures to ensure the health and safety of all people and properties affected under its custodianship or contractual commitments, and is further obligated to monitor that these measures are structured and applied according to the requirements of the Health and Safety Specification.

The purpose of this specification document is to provide the relevant Principal Contractor with any information other than the standard conditions pertaining to construction sites which might affect the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery; and to protect persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work during the carrying out of construction work for TNPA. The Principal Contractor is to be briefed on the significant health and safety aspects of the project and to be provided with information and requirements on inter alia:

- a) Safety considerations affecting the site of the project and its environment;
- b) Health and safety aspects of the associated structures and equipment;
- c) Submissions on health and safety matters required from the Principal Contractor; and
- d) The Principal Contractor's (and his /her contractor) health & safety plan.

To serve to ensure that the Principal Contractor is fully aware of what is expected with regard to the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and the Regulations made there-under including the applicable safety standards, and in particular in terms of Section 8 of the Act.

To inform the Principal Contractor that the Occupational Health and Safety Act, 1993 (Act 85 of 1993) in its entirety shall apply to the contract to which this specification document applies

1.2 Responsibility and Accountability

It is imperative to understand the process of determining legal accountability as the OHS Act is the only criminal Act still administered by the Department of Labour. It *assumes* that the CEO is overall accountable even though he/she may delegate some of his/her responsibilities. This principle is entrenched in Section 37(1) of the Act and is set out below for your benefit. This is generally referred to as the REASONABLE MAN TEST.

SECTION 37: Acts or omissions by Employees or Mandataries

(1) Whenever an employee does or omits to do any act which it would be an offence in terms of this Act for the employer of such employee or a user to do or omit to do, then, unless it is proved that -

(a) in doing or omitting to do that act the employee was acting without the connivance or permission of the employer or any such user;

(b) it was not under any condition or in any circumstance within the scope of the authority of the employee to do or omit to do an act, whether lawful or unlawful, of the character of the act or omission charged; and

(c) all reasonable steps were taken by the employer or any such user to prevent any act or omission of the kind in question, the employer himself shall be presumed to have done or omitted to do that act, and shall be liable to be convicted and sentenced in respect thereof; and the fact that he issued instructions forbidding any act or omission of the kind in question shall not, of itself, be accepted as sufficient proof that he took all reasonable steps to prevent the act or omission.

1.3 Purpose of the Health and Safety Specification

The purpose of the H&S specifications document is to assist in achieving compliance with the Occupational Health & Safety Act 85/1993 (OHS Act), its Regulations and the Construction Regulations (CR's) in order to prevent or as far as possible reduce incidents and injuries. **Note that the CR's 2014 were promulgated on the 7th February 2014 and are enforceable on this project.** These specifications should act as the basis for the drafting of the Principal Contractor and Contractors' construction phase health & safety plans.

The health & safety specifications document sets out the requirements to be followed by the **Principal Contractor and its sub-contractors, as well as any Direct Contractors that might be appointed** with the aim that the health & safety of all persons (including the public) potentially at risk may receive the same priority as other facets of the project e.g. cost, programme, environment, and quality. As a minimum:

Health and Safety Specifications

April 2020

- a) Ensure that health and safety requirements are incorporated into the contract, conditions of tender and pricing documents.
- b) Establish a systematic approach in evaluating the bidding contractors, and
- c) Act as the basis for the drafting of the construction phase health & safety plan and ensure that the contractor's performance is adequately monitored and managed for the duration of the contract.

These specifications in no way release Contractors from compliance with the relevant Legal requirements.

2. SCOPE

The Health and Safety Specifications pertaining to the project STURROCK DRY FLOATING CAISSON, cover the subjects contained in the index and is intended to outline the normal as well as any special requirements of TNPA pertaining to the health and safety matters (including the environment) applicable to the abovementioned project. These Specifications should be read in conjunction with the Act, the Construction Regulations and all other Regulations and Safety Standards which were or will be promulgated under the Act or incorporated into the Act and be in force or come into force during the effective duration of the project. The stipulations in this specification, as well as those contained in all other documentation pertaining to the project, including contract documentation and technical specifications shall not be interpreted, in any way whatsoever, to countermand or nullify any stipulation of the Act, Regulations and Safety Standards which are promulgated under, or incorporated into the Act.

2.1 Proposed Construction methodology

Modular fabrication at workshop (6+ parts). Transport Bottom Parts to Synchrolift by road. Assembly of bottom modules (Part 1 and 2) while in yard at Sychrolift. Casting and curing of permanent concrete ballast at Synchrolift prior to floating (required for stability) –330 t into Part 1. Bottom Modules (Part 1 and 2) Launched at Syncrolift (max capacity 1700tonnes; max draft?). Towing to Sturrock Dry Dock and docking in the dry. Transport top modules to Sturrock by road. Assembly of top modules (Parts 3 to 6) onto combined bottom module. Casting and curing of more permanent concrete ballast (100t) into bottom piece. Shot Blasting, Painting, applying coatings and surfaces. Installation of valves and piping. Tow to Freddy's Quay. Final outfitting of

electrical, control and instrumentation equipment. Inclining Experiment (Stability Test). Casting and curing of final trim permanent concrete ballast (60t) into bottom piece. EC&I Testing and commissioning.

3. INTERPRETATIONS AND RESPONSIBILITIES

3.1 Definitions

The definitions as listed in the Occupational Health & Safety Act 85/1993 and Construction Regulations 2014 shall apply.

Acceptable Risk

A risk that has been reduced to a level that can be tolerated having regard for the applicable legal requirements and the Health and Safety Policy adopted for the project.

ALARP (As Low As Reasonably Practicable)

The concept of weighing a risk against the sacrifice needed to implement the measures necessary to avoid the risk. With respect to health and safety, it is assumed that the measures should be implemented unless it can be shown that the sacrifice is grossly disproportionate to the benefit.

Barricade

A temporary structure that is erected as a physical barrier to prevent persons from inadvertently coming into contact with an identified hazard.

Consequence

The outcome of an event expressed qualitatively or quantitatively.

Contractor

An employer (organisation) or a person who performs **ANY** work and has entered into a legal binding business agreement contract to supply a product or provide services to Transnet. This applies to the Suppliers, Vendors, and Consultants, Service providers or the *Contractor* performing construction work

NB: The *Contractor* is an employer in his/her own right

Competent Person

A person who has in respect of the work or task to be performed the required knowledge, training, experience and as per act cr2014.

Construction Supervisor

A competent person responsible for supervising construction activities on a construction site

Discipline Lock (many locks with a restricted number of identical keys)

Attached at a Lockout Station or at a Local Isolation Point in order to lock out a system, plant or equipment. A Discipline Lock (e.g. A Low Voltage Electricity Discipline Lock) is owned by an Isolation Officer who has been authorised in writing to isolate and lockout a particular hazard (e.g. Low voltage electricity).

Equipment Lock (many locks with one unique key)

Attached directly to pieces of equipment in order to lock them out. Equipment Locks may only be used by Isolation Officers who have been authorised in writing to perform isolation and lockout procedures. The key must have a solid key ring that fits over an Isolation Bar.

First-Aid Injury (FA)

A first-aid injury is any one time treatment and any follow up visit for observation of minor scratches, cuts, burns, splinters and the like which do not normally require medical care. Such treatment is considered to be first aid even if administered or supervised by a medical practitioner. First aid includes any hands on treatment given by a first aider. (E.g. Band-Aid, washing, cleansing, pain, relief). The following procedures are generally considered first aid treatment:

- Application of Antiseptics.
- Application of Butterfly adhesive dressing or sterile strips for cuts and lacerations.
- Administration of tetanus shot(s) or booster(s). However, these shots are often given in conjunction with more serious injuries, consequently injuries requiring these shots may be recordable for other reasons.
- Application of bandages during any visit to medical personnel.
- Application of ointments to abrasions to prevent drying or cracking.
- Inhalation of toxic or corrosive gas, limited to the removal of the employee to fresh air or the one time administration of oxygen for several minutes.
- Negative X-Ray diagnosis.

Health and Safety Specifications

April 2020

- Removal of foreign bodies not embedded in the eye if only irrigation is required.
- Removal of foreign bodies from a wound if procedure is uncomplicated, for example by tweezers or other simple technique.
- Treatment for first degree burns.
- Use of non-prescription medications and administration of single dose of prescription medication on first visit for any minor injury or discomfort.

Hazard

A source of potential harm in terms of human injury or ill health, or a combination of these.

Hierarchy of Controls

A sequence of control measures, arranged in order of decreasing effectiveness, used to eliminate or minimise exposure to workplace health and safety hazards:

- Elimination – Completely removing a hazard or risk scenario from the workplace.
- Substitution – Replacing an activity, process or substance with a less hazardous alternative.
- Isolation (Engineering) Controls – Isolating a hazard from persons through the provision of mechanical aids, barriers, machine guarding, interlocks, extraction, ventilation or insulation.
- Administrative Controls – Establishing appropriate policies, procedures and work practices to reduce the exposure of persons to a hazard. This may include the provision of specific training and supervision.
- Personal Protective Equipment – Providing suitable and properly maintained PPE to cover and protect persons from a hazard (i.e. Prevent contact with the hazard).

Isolation and Lockout Procedure

A plant or equipment-specific procedure that describes the method, and sequence to be followed, for rendering equipment, plant and systems safe to work on.

Incident

An event (or a continuous or repetitive series of events) that results or has the potential to result in a negative impact on people (employees, contractors and visitors), the environment, operational integrity, assets, community, process, product, legal liability and / or reputation.

Likelihood

A description of probability or frequency, in relation to the chance that an event will occur.

**Lost Time Injury (LTI)**

Any occurrence that resulted in a permanent disability or time lost from work of one day/shift or more.

If an employee is injured and cannot return to work in the next shift (will ordinarily miss one whole shift), and the department brings the employee in to only receive treatment by the Supervisor/ Return to Work Coordinator in that shift, this is still considered an LTI.

Lost Time Injury Frequency Rate (LTIFR) - Number of LTI's multiplied by 1 million or 200,000 and divided by labour hours worked.

Near Hit/Miss

An incident that has occurred that did not result in any injuries, illnesses, environmental or property damage but had the potential to cause an injury, illness, environmental or property damage.

Personal Lock

A single lock with one unique key controlled by the owner. Used for personal protection.

Regulation

In the context of this guideline, 'Regulation(s)' refers to the Construction Regulations, 2014 required by Section 43 of the Occupational Health and Safety Act 85 of 1993, published under Government Notice R 84 in Government Gazette 37305 of February 2014.

Risk

A combination of the likelihood of an occurrence of a hazardous event or exposure and the severity of injury or ill health that can be caused by the event or exposure.

Risk Assessment

A process of evaluating the risk arising from a hazard, taking into account the adequacy of any existing control measures, and deciding on whether or not the risk is acceptable.

Risk Management

The systematic application of management policies, processes and procedures to identifying hazards, analysing and evaluating the associated risks, determining whether the risks are acceptable, and controlling and monitoring the risks on an ongoing basis.

3.2 Responsibilities

3.2.1 TNPA Department shall:

- a) Ensure that the Transnet SHEQ Risk Management Policy Statement and Port of Cape Town, SHE Management Statement of Commitment is made available to all contractors performing work for TNPA in the Port,
- b) Ensure contractors submit the necessary documents to ensure compliance with the Occupational Health & Safety Act and other requirements,
- c) Provide an Induction regarding the Safety, Health, Environmental & Security rules of the Port of Cape Town, including but not limited to:
 - o Port Rules,
 - o Road traffic rules,
 - o Security,
 - o Fire protection,
 - o Evacuation procedures,
 - o Housekeeping,
 - o Reporting of incidents, and
 - o Environmental requirements.
- d) Ensure that an approved Contractor Train-the-Trainer is issued with a letter of approval from TNPA, where the Contractor opts to conduct his/her own induction upon approval from TNPA,
- e) Ensure that TNPA SHE Induction requirements are incorporated onto the Contractor SHE induction,
- f) Ensure that approved Contractor Train-the-Trainer is audited for compliance purposes at least once during the duration of the contract or when required,
- g) Ensure the environment is not harmful to health or the well-being of people as well as promotion of environmental protection and conservation,
- h) Provide a safe and healthy work environment to employees, stakeholders, clients and agents,
- i) Conduct site inspections and audits to verify whether the project, contractor(s) are complying with TNPA safety rules and specifications,
- j) Communicate all the Port risks & hazards to the Contractor employees, and
- k) Ensure that no access will be given to the Contractor who fails to comply with TNPA minimum SHE requirements.





3.2.2 The TNPA Project Manager shall:

- a) Ensure statutory notifications are made to the appropriate government authorities by the Contractor.
- b) Ensure appointed designer comply with their responsibility to eliminate, mitigate and reduce risks during demolition, excavation, construction, commissioning and maintenance has made available all relevant information about the design of the relevant structure that may affect the pricing of the construction work.
- c) Ensure co-operation between the designers to identify anticipated dangers, hazards relating to the construction work are communicated in order to eliminate and mitigate risks. If designs are being altered, necessary relevant information should be available and shared on the safe execution of the work.
- d) Ensure that a SHE file is available for each Contractor and is handed over the SHEQ department for record purposes after the completion of the project.
- e) Ensure inspections are carried on the structure upon completion in order to render it safe for continued use and legislative inspections are carried at stipulated intervals that is once every six month for the first two years and thereafter yearly.
- f) All necessary records, surveys, reports are stored and made available to the inspector upon request.
- g) Ensure the project does not commence prior the approval of the submitted SHE plan by the SHEQ department.

3.2.3 TNPA Rules of Conduct

Principal Contractors, their sub-Contractors and all employees under their control, including any visitor brought onto site must adhere to the following Rules of conduct on site.

YOU MAY NOT:

-  Partake, possess or sell drugs or alcoholic beverages on site. Any employee or visitor whose action and demeanour show symptoms of possible narcosis or drunkenness shall be removed from site.
-  Indulge in practical jokes, horseplay, fighting or gambling.
-  Destroy or tamper with safety devices, symbolic signs or wilfully and unnecessarily discharge fire extinguishers.
-  Bring onto site or have in your possession a firearm, lethal weapon.

Health and Safety Specifications

April 2020

- 🚧 Assault, intimidate or abuse any other person.
- 🚧 Operate construction equipment (vehicles or plant) without the necessary training and authorisation.
- 🚧 Display insubordination toward any supervisor, foreman or Manager in respect to carrying out of properly issued instructions or orders for health and Safety reasons.
- 🚧 Enter any area where you have no business unless authorised to do so by the person in charge.
- 🚧 Negligently, carelessly or wilfully cause damage to property of others.
- 🚧 Refuse to give evidence or deliberately make false statements during investigations.

TNPA 11 Life Saving Rules

- Rule 1** Do not come to work in possession or consumption of banned substances or being under the influence of alcohol.
- Rule 2** Do not violate traffic rules and do not exceed the prescribed speed limit 40 km p/h within TNPA premises and 20km p/h on the quay side.
- Rule 3** Do not work in the hazardous areas without proper procedure being followed.
- Rule 4** Do not work at height where there is a risk of falling without fall protection equipment.
- Rule 5** Do not clean or repair any equipment without following isolation or locking out procedure.
- Rule 6** Do not stand or work within the demarcated line of the edge of the quay without the life vest/jacket.
- Rule 7** Adhere to all railway rules, signs and stay out of the close clearance areas.
- Rule 8** Do not enter or work in the confined space alone and without a proper procedure being followed throughout the duration of the task.
- Rule 9** Do not stand under the suspended load.
- Rule 10** Adhered to all the health and safety basic rules, standards and signals and always wear the required PPE.
- Rule 11** Do not tamper with or disable safety devices.

3.2.4 Duties of Designers

A designer must ensure that he/she complies with the requirements of the Construction Regulations. Designers have a duty both to assist in health and safety during construction as well as post construction to ensure safe occupation of the structures concerned. This will include informing the [Principal Contractor](#) in writing of any known or anticipated dangers or hazards relating to the construction work, and making available all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered.

Designers must ensure that the following information is included in a report and made available to the Principal Contractor:

Health and Safety Specifications

April 2020

- i) The health & safety information pertaining to the design of the relevant structure(s) that may affect the pricing of the construction work.
- ii) The loading the structure is designed to withstand; and
- iii) The geotechnical science aspects where appropriate.

With reference to this contract, a written report will be required from each Designer addressing the information set out above and below (in terms of Construction Regulation 6), specific to the particular discipline. The Construction Regulations (CR's) requires Designers (see definition of Designer in CR 1) to make certain information available to the Client (H&S Agent) and Contractors with the aim of 'designing out hazards' as far as possible. The aim of the report(s) would be to address the various headings (set out below) as best possible in an effort to make as much information available to the contractors so that they can improve their H&S management on the actual site.

Items to be addressed by Designers in terms of CR 6:

1. Anticipated or known dangers or hazards (known at this stage) relating to the construction work, foreseen by the Designer, including the relevant information required for the safe execution of the work. This must also include **health & safety information about the design which could have an influence on the pricing** of the work.
2. Dangerous substances/materials foreseen which cannot be avoided during this particular type of construction.
3. Dangerous procedures foreseen which cannot be avoided.
4. Hazards and risks relating to the subsequent maintenance of the structure/building foreseen and resulting safe work procedures advised.
5. Site inspections to verify whether construction of the relevant structures are being carried in accordance with the designs. How will this be handled by you and your team on the project?
6. The stoppage of contractors where required (by the Designer) - the envisaged protocol to be followed to stop an activity or process on site. How will this be handled by you and your team on the project?
7. The application of ergonomic principles during design - how has and will this be implemented by the respective Designers?
8. Design of temporary works if applicable on this portion of the project e.g. formwork and support work, back propping, etc. You may merely need to refer to the temporary works designer as being a separate entity, appointed by the Contractor.
9. The loading that a structure can withstand and/or is designed to withstand - details on this must be included. Please pay special attention to the definition of 'structure' in Construction Regulation 1.

Health and Safety Specifications

April 2020

10. Geotechnical-science aspects where appropriate. You may merely have to refer to the geo-tech report and make this available to me and to the Contractors.

Note that no guidance notes have yet been made available from the Department of Labour and the above list therefore represents the Agent's interpretation of the Regulations.

Where designer requirements are included within the legislation, this means that it is no longer sufficient to assume that compliance with the code or standard is enough. Designers need to **demonstrate that they have identified the risks in their design and where particular code/standard is not appropriate, to eliminate these risks, the systematic risk based approach should be used to determine the right solution and reduce the risk as low as reasonably practicable while ensuring that the client is aware of the residual risks.**

Designers can make decisions that significantly **reduce the risks to safety and health during the construction stage and during subsequent use and maintenance. They are therefore a key contributor to construction health and safety.**

As a designer you can directly influence safety of the structure. Designers must take account of the General Principles of Prevention when preparing designs. The Principles of Prevention are a hierarchy or risk elimination and reduction.

The General Principles of Prevention are set out below in descending order of preference as follows:

1. Avoid risks.
2. Evaluate unavoidable risks.
3. Combat risks at source.
4. Adapt work to the individual, especially the design of places of work
5. Adapt the place of work to technical progress.
6. Replace dangerous articles, substances, or systems of work by non-dangerous or less dangerous articles, substances, or systems
7. Use collective protective measures over individual measures
8. Develop an adequate prevention standard
9. Give appropriate training and instruction to employees.

Health and Safety Specifications

April 2020

Some of the well-proven ways of reducing risk include choosing the position and design of the structures to avoid or minimise risks from known site hazards, including:

- Buried services, including gas pipelines, overhead and underground power lines
- Traffic movements to, from, around, and adjacent to the site
- Contaminated ground (for example by using driven rather than bored piles)

Designing out or minimising health hazards, for example:

- Specify/permit the use of materials known to be less hazardous, e.g. low solvent adhesives and water-based paints
- Avoid processes that create hazardous fumes, vapours, dust, noise or vibration, including disturbance of existing asbestos, cutting chases in brickwork and concrete, unnecessary breaking down cast in-situ piles to level or scrubbing concrete
- Specify the use of easy to handle materials
- Design block paved areas to enable mechanical handling and laying of units
- Design access areas to accommodate work-at-height equipment.

Where there are residual risks, the designer must:

- Communicate necessary control measure
- Design assumptions or remaining risks to the project manager so that it can be dealt with in the safety and health plan.
- Co-operate with other designers and project manager during construction stage
- Take account of any existing safety and health plan or safety file

At each stage of the design process risk identification should take place to eliminate risk or where this is not possible reduce risk as low as reasonably practicable through the implementation of control measure. Typical requirements and example of safe design for different stages are shown in table 1 below.



Table 1. Safety in design requirements

Design Stage	Safety design Requirements	Example of safety Design Consideration
<p>Concept design (<i>this may include feasibility or option studies</i>)</p>	<p>Identification of critical health and safety related risks that may affect the viability of the project</p>	<ul style="list-style-type: none"> - Site geology e.g. soft soil - Contaminated land - Emissions from development - Proposed use zoning
<p>Functional design (<i>this may include preliminary design</i>)</p>	<p>Identification of reasonably foreseeable safety risks with a design project associated with the construction/manufacture, installation, commissioning, maintenance/repair, demolition and disposal (<i>Hazard and operability studies may be used to identify risks (Hazop)</i>)</p>	<ul style="list-style-type: none"> - Specification of materials with high durability and low maintenance requirements - Hazardous area classification - Redundancy- introduction of duplicates to allow safe continued operation in the event of failure - Providing permanent safe access to roofs, plants rooms and windows for maintenance and repair purposes such as stairs or walkaways with guardrails. - Taking into considerations ergonomic principles eg avoid designing construction activities that require work with restricted spaces or designs that require repetitive or prolonged movements to complete task.
<p>Detailed design (<i>this includes full documentation to allow construction to commence and should include consideration of the procurement, construction,</i></p>	<p>Focusing on ways in which a design can be modified to eliminate or reduce issues that may affect the ongoing safety of persons involved in constructing,</p>	<ul style="list-style-type: none"> - Eliminating the need for installing temporary barriers, by integrated guardrail system along roof edges.



Health and Safety Specifications

April 2020

<p><i>start up and ongoing operation and maintenance of project).</i></p>	<p>using, maintaining or demolishing the design product.</p>	<ul style="list-style-type: none"> - Inclusion of construction access into building fabric e.g. removable panels - Lifting lugs installed to facilitate the movement of heavy items
---	--	---

The current construction regulation 2014 (CR 6) requires that the designer of a structure must:

- 1) Ensure that applicable safety standards are complied with in relation to design and other legal requirements (e.g. Driving Machinery regulation)
- 2) Consider the TNPA’s Health and Safety specifications requirement.
- 3) Prepare a report which sets out: all relevant Health and safety information about the design which may affect pricing, the geo-technical aspects and the loading that the structure can withstand.
- 4) Inform TNPA in writing of any known or anticipated dangers or hazards relating to the construction work and make available all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered.
- 5) Refrain from including anything in the design of the structure necessitating the use of dangerous procedures or materials hazardous to the Health and Safety of persons, which can be avoided by modifying the design or by substituting materials.
- 6) Consider future hazards (maintenance) and make provision for these in the design.
- 7) Conduct necessary inspections if mandated by TNPA - note that if not, the agent must do these.
- 8) When mandated by the client to do so, carry out the necessary inspections at appropriate stages to verify that the construction of the relevant structure is carried out in accordance with his design: Provided that if the designer is not so mandated, the client’s appointed agent in this regard is responsible to carry out such inspections;
- 9) When mandated as contemplated in paragraph (8), stop any contractor from executing any construction work which is not in accordance with the relevant design’s health and safety aspects: Provided that if the designer is not so mandated, the client’s appointed agent in that regard must stop that contractor from executing that construction work;
- 10) When mandated as contemplated in paragraph (8), in his or her final inspection of the completed structure in accordance with the National Building Regulations, include the health and safety aspects of the structure as far as reasonably practicable, declare the structure safe for use, and issue a completion certificate to the client and a copy thereof to the contractor; and
- 11) Consider ergonomics in the design.

Health and Safety Specifications

April 2020

3.2.5 Client/Contractor shall:

- a) Ensure that all activities are in-line with the Transnet SHEQ Risk Management Policy Statement and Port of Cape Town, SHE Statement of Commitment,
- b) Communicate the Policies to his/her employees and sub-contractors,
- c) Conduct risk assessment before the commencement of the actual work in terms of the contract. Duly completed risk assessment must be signed by the relevant appointed Contractor representative(s),
- d) Ensure that all employees, contractors and visitors are provided SHE induction prior accessing the site,
- e) Communicate all identified risk and control measures to their employees,
- f) The Contractor/client shall report all the reportable incidents/accidents according to:
 - o the OHS Act No. 85 of 1993 to the Department of Labour and/or
 - o Merchant Shipping Act to SAMSA and/or
 - o National Environmental Management Act, to DEA as stipulated within the respective Act(s).
- g) Develop safe work procedures for their employees specific to the nature of the work they contracted to undertake,
- h) Monitor and review a plan for risk and hazard identification,
- i) Ensure that the copy of risk assessment is always available on site on the file,
- j) Ensure that a Certificate of Good Standing is issued by the Workman's Compensation Commissioner,
- k) Appoint all Competent Persons in writing,
- l) Ensure that all employees under his control are medically declared fit to work, in particular for work being done in elevated positions, confined spaces, etc.,
- m) Make provision for health & safety budgets in its tender price as required by law,
- n) Provide specification to the contractor on measures to prevent exposures, injuries and harm to the environment,
- o) Carry out regular inspections to assess if they comply with SHE specification,
- p) Provide all employees with personal protective equipment-free of charge,
- q) Ensure that the required PPE or clothing is worn on site and appropriate signage is displayed.
- r) Ensure that all incidents (including near miss cases) are reported to the appropriate role players and relevant government Institutions.

3.2.6 Other Joint Responsibilities

- a) The Client, Agents and Contractors shall ensure that all project activities do not contradict the company policies and other applicable procedures,
- b) The contractor shall provide and maintain systems of work, plant and machinery that is safe and without risks to health, environment, and safety of people within Transnet National Ports Authority,
- c) The Contractor will give access to TNPA for inspection of plant, machinery and equipment to ensure compliance,
- d) Agent and contractors shall take steps to eliminate or mitigate any hazard or potential hazard to the safety or health of employees, contractors, visitors and suppliers, before resorting to personal protective equipment.

3.2.7 Duties of Manufacturers and Suppliers (Section 10 of the OHS Act)

Any person who designs, manufactures, imports, sells or supplies any article for use at work shall ensure, as far as is reasonably practicable, that the article is safe and without risk to health when properly used and that it complies with all prescribed requirements.

Any person who erects or installs any article for use at work on or in any premises shall ensure, as far as is reasonably practicable, that nothing about the manner in which it is erected or installed makes it unsafe or creates a risk to health when properly used.

The above remains the responsibility of the P/Contractor who must ensure that manufacturers and suppliers comply with the provisions of the OHS Act.

3.2.8 Pricing for Occupational Health & Safety Compliance

All parties bidding for work on this construction project must ensure that they have made sufficient provision for the cost of complying with this Specifications document as well as with the OHS Act and incorporated Regulations as a minimum requirement in their tender documentation. It must also be taken into consideration that time is money, which implies that sufficient time must be allowed for the implementation of the minimum OHS standards. No additional claims will be entertained at a later stage should a compliance requirement be prescribed in the OHS Act, incorporated regulations or in this Specifications document unless due to design changes which would require additional resources.

The professional quantity surveyors must develop a strategy in this regard to ensure that H&S costs have received sufficient consideration. Contractors must make use of Annexure 'H' herein below as a guide when pricing health & safety on this project. Health & safety costs must be clearly set out in the tender submission by each and every contractor.

Designers are also required to issue a written reports setting out the health and safety information about the design of the relevant structure that may affect the pricing of the construction work

Health and Safety Specifications

April 2020

(including the demolition works which would need input from the structural engineer). Such reports must be issued before tender and included in such tender document.

3.2.9 Other Requirements

- a) The hazards identified by contractors and control measures should be communicated to the contractor's employees.
- b) A proof of communication of risk assessment must be kept in the contractors file as records.
- c) TNPA reserves the right to request this information from the contractor at any given time.
- d) In a situation where a risk assessment is not readily available or not communicated to contractor employees, the activity will be stopped until such time the contractor complies.

4. MINIMUM ADMINISTRATIVE REQUIREMENTS

- a) The principal contractor must prepare, implement and administer the Contractor's Health and Safety Management Plan. The Plan is in writing and accepted by TNPA, prior to mobilisation to the construction site for work under the Contract, to TNPA or TNPA nominated Representative, for acceptance.
- b) The Health and Safety Management Plan must comply with this Contract including Project Site Rules, and applicable law relating to Workplace Health and Safety and Environmental Health. Any proposed amendments or revisions to the Contractor's Safety Management Plan is submitted to TNPA for acceptance, and once accepted, it becomes part of the TNPA Safety Management Plan.
- c) The Health and Safety Management Plan must provide a systematic method of managing hazards according to the risk priority, and must include all mobilisation and site set-up activities.
- d) The Contractor's Health and Safety Management Plan must demonstrate Management's commitment to safety and must include, but not be limited to, the following minimum auditable elements:

4.1 Application for a work Permit (CR 3)

- a) TNPA who intends to carry out construction work must obtain a permit from the Provincial Director of the Department Of Labour prior to the commencement of Work. This will allow the Provincial Director to inspect certain health and safety documents and to satisfy himself the TNPA has taken the necessary precautions to ensure that the work, as far as reasonably practicable, can be carried out safely.
- b) This requirement is in addition to the previous notification of construction work required of a Contractor, in certain circumstances.

April 2020

Health and Safety Specifications

- c) A permit will only be required if the Work will:
- o Exceed 180 days;
 - o Involve more than 1800 person days of Work;
 - o Include a contract for the work which work is of a value equal to or exceeding sixty million rand or is for the Construction Industry Development Board grading level 6.
- d) A permit required for this nature of work will only be necessary to obtain 18 months after the commencement of these regulations (7 August 2015). The Provincial Director must issue a construction work permit in writing to perform construction work contemplated in sub regulation (1) within 30 days of receiving the construction work permit application and must assign a site specific number for each construction site.
- e) A site specific number contemplated in sub regulation (3) must be conspicuously displayed at the main entrance to the site for which that number is assigned.
- f) A construction work permit contemplated in this regulation may be granted only if -
- o The fully completed documents contemplated in regulation 5(1)(a,) baseline risk assessment and (b) a suitable, sufficiently documented and coherent site specific health and safety specification for the intended construction work based on the baseline risk assessment contemplated in paragraph (a); have been submitted; and
 - o Proof in writing has been submitted - that the client complies with regulation 5(5) with regard to the registration and good standing of the Principal Contractor as contemplated in regulation 5(1)(j); and that regulation 5(1)(c), (d), (e), (f), (g) and (h) has been complied with.
- g) TNPA must ensure that the Principal Contractor keeps a copy of the construction work permit contemplated in sub regulation (1) in the occupational health and safety file for inspection by an inspector, the Client, the Client's authorised agent, or an employee.
- h) No construction work contemplated in sub regulation (1) may be commenced or carried out before the construction work permit and number contemplated in sub regulation (3) have been issued and assigned.
- i) A site specific number contemplated in sub regulation (3) is not transferrable.
- j) A permit of this nature will not have to be obtained if the work carried out is in relation to a single storey dwelling for a client who intends to reside in such dwelling






4.2 Notification of Construction work (CR4)

- a) The Contractor shall notify the Provincial Director of the Department of Labour in writing at least 7 days before construction work commences if he intends to carry out any construction work other than work contemplated in regulation 3(1) in a form similar to annexure 2 if the intended construction work will:-
- Include excavation work
 - Include working at a height where there is risk of falling
 - Include the demolition of a structure, or
 - Include the use of explosives to perform construction work.
- b) A contractor who intends to carry out construction work that involves construction of a single storey dwelling for a client who is going to reside in such dwelling upon completion must at least 7 days before that work is to be carried out notify the provincial director in writing in a form similar to Annexure 2.
- c) A copy of all notification must be forwarded to the Client on appointment.

4.3 Permit to work (TNPA)

The Contractor shall prior to commencing with any job on site ensure that they have obtained the necessary permit from TNPA representatives.

Permits may possibly include the following;

-  Hot work
-  Isolation and lock-out
-  Confined spaces
-  Permit to work
-  Diving permit

4.4 OHS Act Legal Appointments.

- a) Appointments are legal documents and shall be made in accordance to the provisions of relevant/applicable legislation. Legal appointments of competent persons are used to assist the Employer in executing his/her duties, and to ensure that all work is done safely and that proper supervision is performed at all times,

Health and Safety Specifications

April 2020

- b) The Contractor shall submit supervisory appointments as well as any relevant appointments in writing (as stipulated by the OHS Act and Regulations (85 of 1993)), prior to commencement of work. Proof of competency must be included. See Annexure B, and
- c) All appointed persons shall be competent and be able to prove their competency (Training Certificates).

4.5 Competency for Contractor's Appointed Competent Persons

- a) Contractors' competent persons for the various risk management portfolios shall fulfil the criteria as stipulated under the definition of Competent in accordance with the Construction Regulations 2014. Proof of competence for the various appointments must be included.

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

- a) The Principal Contractor shall submit a letter of good standing with its Compensation Insurer to the Client as proof of registration. Sub-Contractors shall submit proof of registration to the Principal Contractor before they commence work on site.
- b) A letter of good standing is the registration certificate issued by the Workman's Compensation Fund or any other licensed insurer when the insured has complied with all the requirements of the insurer and the requirements of the act. The certificate will reflect the -
 - o Name of the insured company
 - o Expiry date-the certificate must be valid during the contract period.
 - o The registration number.
- c) The certificate will be issued without any alterations.

No contractor may do any work for TNPA without a valid letter of good standing.

4.7 Occupational Health and Safety Policy

- a) The Principal Contractor and all Sub Contractors shall submit a Health and Safety Policy signed by their Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented by the Company / Contractor.

4.8 Health and Safety Organogram

- a) The Principal Contractor and all Sub Contractors shall submit an organogram, outlining the Health and Safety Site Management Structure including the relevant appointments/competent persons. In cases where appointments have not been made, the organogram shall reflect the intended positions. The organogram shall be updated when there are any changes in the Site Management Structure.

4.9 Preliminary Hazard Identification and Risk Assessment and Progress Hazard

4.9.1 Identification and Risk Assessment

Detailed hazard identification and risk assessment processes must be followed for all work to be performed as well as for all associated equipment and facilities as required by the Construction Regulation of 2014, in particular Regulation 9(1) – (7).

Contractor must ensure that effective procedures and risk assessment systems are in place to control hazards and to mitigate risks to levels that are as low as is reasonably practicable.

The risk assessment processes must be applied to:

- The full life cycle of the project;
- Routine and non-routine activities;
- Planned or unplanned changes (refer to Section 15);
- All employees, sub-contractors, suppliers and visitors; and
- All infrastructure, equipment and materials.

The risk assessment processes and methodologies must be appropriate for the nature and scale of the risks, and must be implemented by competent persons.

The process of analysing and managing risk must include the following:

- Establishing the context of the risk assessment;
- Identifying hazards and determining possible risk scenarios (unwanted events);
- Evaluating risks and assigning ratings (classification);
- Recording the risk analysis in a risk register;
- Managing risks according to their classification (prioritising for action);

Health and Safety Specifications

April 2020

- Identifying and implementing control measures (through the application of the Hierarchy of Controls) to ensure that risks are managed to levels that are as low as is reasonably practicable (ALARP);
- Developing action plans for reducing risk levels (where possible);
- Verifying the completion of actions;
- Re-evaluating the risks and classifications as appropriate; and
- Reviewing and updating the risk register.

4.9.2 Baseline Risk Assessments

The *Contractor* must consider the *Client's* Baseline Risk Assessment when identifying foreseeable hazards and risk scenarios associated with the construction project.

The *Contractor* must prepare a Risk Register comprising all significant risks (i.e. Risks rated as major or catastrophic) identified for the project using the information contained in the project Baseline Risk Assessment as well as the *Contractor's* Baseline Risk Assessment. Key control measures for managing each of these risks must be specified in the register.

For the significant risks in particular, action plans must be developed for reducing the risk levels (where possible).

The project Risk Register must be reviewed and, if necessary, updated:

- On a quarterly basis during construction;
- When changes are made to a design and / or the construction scope, schedule, methods, etc. That result in a change to the risk profile; and
- Following an incident.

The *Contractor* must ensure that the hazards, risk scenarios and control measures identified in the *Contractor's* Baseline and Task-Based Risk Assessments are taken into consideration when developing, implementing and maintaining the various elements of the *Contractor's* health and safety management system for the project (e.g. Competence, training and awareness requirements).

All persons potentially affected must be made aware of the hazards, risk scenarios and control measures identified in the *Contractor's* risk assessments. This must be done through training, Toolbox Talks, and Daily Safe Task Instructions (refer to Sections 10 and 11).



4.9.3 Task-Based Risk Assessments

The *Contractor* must carry out detailed project-specific Task-Based Risk Assessments which must be reviewed and accepted by the *Construction* Health and Safety Agent prior to the commencement of any work.

The risk assessment process must be facilitated by a competent person who has been appointed in writing in terms CR 9 sub regulation (1). The *Contractor's* site management representatives, supervisory personnel, technical experts (as required) and workforce personnel directly involved with the task being examined must participate in the risk assessment process. An attendance register must be completed and retained.

Please Note: Under no circumstances may a *Contractor* Health and Safety Officer perform a risk assessment in isolation. The active participation of all persons referred to above is mandatory.

A Task-Based Risk Assessment must at least:

- Be accompanied by a Technical Method Statement (describing in sufficient detail how the specific job or task is to be performed in a logical and sequential manner);
- Provide a breakdown of the job or task into specific steps;
- Identify the hazards and potential risk scenarios associated with each step;
- Include consideration of possible exposure to noise, heat, dust, fumes, vapours, gases, chemicals, radiation, vibration, ergonomic stressors, or any other occupational health hazard or stressor;
- Describe the control measures that will be implemented to ensure that the risks are managed to levels that are as low as is reasonably practicable; and
- Assign an initial risk rating (without taking any control measures into consideration) and a residual risk rating (taking the identified control measures into consideration) to each risk scenario.

A Task-Based Risk Assessment must be reviewed and, if necessary, updated:

- On an annual basis (as a minimum);
- When changes are made to the associated Work Method Statement; and
- Following an incident.

4.9.4 Pre-Task Hazard Assessments

A pre-task hazard assessment must be completed whenever a change is identified while carrying out an activity. Any deviation from what was discussed during the Daily Safe Task Instruction (prior to the activity commencing), or anything that was not discussed, constitutes a change.

Before carrying out the particular task that involves the identified change, a few minutes must be spent identifying the hazards and risks associated with that task as well as suitable control measures.

- b) The Client has included a baseline health & safety risk assessment for the construction work foreseen, and has included this herein below (annexure 'E'). The baseline risk profile must be utilised by the P/Contractor and Contractors when compiling their own baseline risk assessment document as part of their H&S Plan submissions.**

The Principal Contractor must ensure that contractors inform, instruct and train their workers regarding any hazards, the associated risks and the related safe work procedures to be implemented **before** any work commences and thereafter at regular intervals as the risks change and as new risks develop. This training should be carried out in the form of toolbox health & safety talks. **Contractors must conduct their own toolbox talks (training on activities and risk assessments) and submit proof of these talks in the form of attendance registers to the Principal Contractor at least weekly or before new activities begin.** Every worker on site must undergo such toolbox health & safety talks with the attendance registers kept in the Contractor's health & safety file.

Contractors must conduct their own hazard identifications and risk assessments specific to their operations and forward a copy to the Principal Contractor. The Principal Contractor when required must report on the status of its Contractors' risk assessments to the Client/H&S Agent at monthly audits.

The implementation of a hazard identification risk assessment (HIRA) look-ahead programme is required on this project with the aim of identifying hazards and hazardous activities well before they are undertaken. Such programme should serve to ensure that safe work procedures are planned and implemented and that workers are properly informed of the hazards and safe work procedures before they are exposed to the risks. **Annexure 'D'** of this specifications document serves as a pro-forma in this regard.

It is also required that the site health & safety officer carries out regular planned task/job observations (PTO's) with the aim of ensuring that activities are being carried out as per the documented risk assessments and method statements. It is advised that at least two PTO's are carried out and documented per week.

It must also be emphasized that Designers as defined in the Construction Regulations have the duty of identifying design hazards, assessing the risks, eliminating such risks by means of

Health and Safety Specifications

April 2020

substitution of similar measures, or clearly alerting Contractors where design related hazards cannot be eliminated.

Any design hazards perceived by the designer to have an impact on construction health & safety must be brought to the attention of P/Contractor with the aim of ensuring that all necessary health & safety measures can be priced and properly implemented thus minimising the chance of injury and property damage.

4.10 Health and Safety Representative(s)

- a) At least one health & safety representative is required by every Contractor who has more than 20 employees on a site. Where the total workforce on site is more than 20, the P/Contractor will need to appoint an H&S representative. Principal Contractor must ensure that Health and Safety Representative(s) are appointed under consultation with the employees. The H&S representatives must be competent to carry out their functions. The appointments must be in writing. The Health and Safety Representatives should carry out monthly inspections, keep records of the inspections and report all findings to the Responsible Person or safety officer forthwith and at monthly health & safety committee meetings.

4.11 Health and Safety Committees

The Principal Contractor must ensure that project health and safety meetings are held monthly with minutes kept. **Meetings must be chaired by the Principal Contractor's Responsible Person [CR 8(1) person] or suitable CR 8(2) Person if the CR 8(1) is not available. Further, all CR 8(2), 8(7) and 8(8) appointees must attend such monthly meetings. All Contractor CR 8(7) Supervisors must be in attendance.** Project H&S meetings will be required as soon as the site team exceeds 20 persons and then every month thereafter.

All sub-contractors' Responsible Persons and Health & Safety Representatives must attend the Principal Contractor's monthly health & safety meetings.

The following topics must be tabled at meetings: management appointments and risk management portfolios; sub-contractor legal compliance issues; injuries and incidents; hazards and risk assessments (present and foreseen); health & safety procedures; method statements for upcoming activities; planned inspections and registers/record keeping, etc. The meeting chairperson must sign off and date the minutes.

**Health and Safety Specifications****4.12 Health and Safety Training****4.12.1 Induction**

- a) The Principal Contractor shall ensure that all site personnel undergo a risk-specific health and safety induction training session before starting work. A record of attendance shall be kept in the health & safety file. A suitable venue must be supplied to house this training.

4.12.2 Awareness

- a) The Principal Contractor shall ensure that, on site, periodic toolbox talks take place daily. These talks should deal with risks relevant to the construction work at hand. A record of attendance shall be kept in the health & safety file. All Contractors have to comply with this minimum requirement. At least one of the Toolbox talks shall be on any environmental related issue.

4.12.3 Competency

- a) All competent persons shall have the knowledge, experience, training, and qualifications specific to the work they have been appointed to supervise, control, and carry out. This will have to be assessed on regular basis e.g. periodic audits by the Client, progress meetings, etc. The Principal Contractor is responsible to ensure that competent Sub Contractors are appointed to carry out construction work.

4.13 General Record Keeping

- a) The Principal Contractor and all Sub Contractors shall keep and maintain Health and Safety records to demonstrate compliance with this Specification, with the OHS Act 85/1993; and with the Construction Regulations (July 2003). The Principal Contractor shall ensure that all records of incidents/accidents, training, inspections; audits, etc. are kept in a health & safety file held in the site office. The Principal Contractor must ensure that every Sub Contractor opens its own health & safety file, maintains the file and makes it available on request.
- b) Such 'Contractor health & safety files' must be audited by the Principal Contractor at least every 30 days with audit reports kept as proof.

4.13.1 Inspection of equipment and tools.

- a) The following items of equipment must be regularly inspected and maintained and appropriate records kept:
- First Aid dressing registers.
 - Fire equipment
 - Lifting equipment/machinery
 - Lifting Gear/tackle
 - Portable electrical equipment
 - Stacking and storage inspections
 - Pressure Vessels
 - Ladders
 - Safety harnesses
 - Scaffold - static and mobile.
 - Pneumatic tools
 - Construction vehicles and mobile plant.
 - Health and Safety Representatives checklists.

4.14 Health & Safety Audits, Monitoring and reporting

- a) The Client shall conduct monthly health & safety audits of the work operations including a full audit of physical site activities as well as an audit of the administration of health & safety. The Principal Contractor is obligated to conduct similar audits on all Sub Contractors appointed by them.
- b) Detailed reports of the audit findings and results shall be reported on at all levels of project management meetings/forums. Copies of the Client audit reports shall be kept in the Primary Project Health & Safety File while the Principal
- c) Contractor audit reports shall be kept in their file, a copy being forwarded to the Client. Sub-Contractors have to audit their sub-contractors and keep records of these audits in their health & safety files, available on request.

The Principal Contractor is obligated to conduct monthly audits (at least once every 30 days) on all Contractors appointed by it and keep audit reports in its health & safety file. Contractors have to audit their sub-contractors and keep records of these audits in *their* health & safety files, made available on request where such sub-contractors will be on site for longer than a month. **The principal contractor has to submit the audit criteria intended to be used on sub-contractors**

Health and Safety Specifications

April 2020

together with the H&S plan for approval by the Client. The H&S Agent will conduct monthly audits on the Principal Contractor's health & safety management plan to ensure that contractors are working in accordance with the agreed safety & health requirements/procedures. Refer to attached **Annexure 'C'** for more details regarding these audits. Further site inspections and visits will also take place.

In addition to the agreed Client H&S audits on the Principal Contractor, the H&S Agent will require a formal written feedback report to be compiled by the Principal Contractor. This will be the official response to the H&S Agent's report and must be submitted within 3 working days from receipt of the audit report. This report should outline the steps the Principal Contractor has taken or will be taking in order to comply with the noted deviations.





In line with the principle of "anticipated/foreseeable activities and risks", a written report serving as a schedule for upcoming HIRA's must be included in the Principal Contractor's progress report, tabled at the monthly site progress meeting(s) with the Client. See attached **Annexure 'D'** for more detail in this regard.

The purpose of this requirement is to ensure that the Principal Contractor applies the same management principles to health & safety as is already applied to quality, productivity and budget.

The Principal Contractor must conduct monthly internal health and safety audits and such records must be kept on site. The Principal Contractor must ensure that corrective measures are taken to ensure compliance. The

4.15 Emergency Procedures

The Principal Contractor shall submit a detailed Emergency Procedure as part of his H&S Plan. The procedure shall detail the following:

- List of key personnel,
- A contact list of all emergency service providers (Fire department, Ambulance, Police, Medical and Hospital, etc.) must be maintained and be available to site personnel.
-  Actions or steps to be taken in the event of the emergency; and
-  Information on any hazardous material and its situation on the site
-  Information on hazardous material's potential impact or risk on the environment or to humans, and measures to be taken in the event of an accident.
-  Emergency procedure(s) shall include, but not be limited to, fire, spills, accidents to employees and injury resulting from the use of hazardous substances, etc.

Health and Safety Specifications

April 2020

In the event of an emergency arising, the Principal Contractor shall advise TNPA Richards Bay SHEQ Department in writing of the incident via flash report (Annexure H), together with a record of any action taken, within 24 hours of the emergency occurring.

If based on site for longer than 6 months –

- 📄 The Principal Contractor/Contractor shall develop his own emergency response plan for both work areas and office areas and submit this plan to the appointed Construction Manager for approval. The plan shall be amended as required by the Construction Manager. The Principal Contractor shall ensure that all Contractor's and personnel are aware of and trained in the execution of the emergency plan.
- 📄 Periodic emergency drills will be undertaken by TNPA Fire Department. The Principal Contractor/Contractor shall also initiate his own emergency drills, with the co-operation, and subject to the approval of the Construction Manager. Details of such drills shall be recorded and such records shall be made available on request.
- 📄 The Principal Contractor/Contractor shall be responsible for ensuring that his emergency plan is reviewed annually, and after every incident which caused the emergency plan to be activated. Any changes made shall be briefed to all persons affected and the information provided to the Construction Manager.

4.16 Fire Precautions

- 📄 Where required by the TNPA SHEQ Department, the Principal Contractor shall provide, at strategic positions on the site, portable fire equipment, which shall be serviced regularly, in accordance with the manufacturer's recommendations.
- 📄 Safety signage shall be prominently displayed in all areas where fire equipment is located. The Principal Contractor shall arrange for the training of the relevant personnel, in the use of fire extinguishers.
- 📄 A register shall be kept on all Acetylene and Oxygen cylinders used on site.
- 📄 Condition of components, sub-components and safety components – e.g. Flame back arrestors, shall be listed in the register and signed by the construction supervisor at regular intervals as required with time and date stamp.
- 📄 Acetylene, Oxygen and LP Gas cylinders shall be stored in suitable places to minimise the risk of fire;
- 📄 Suitable storage to be provided for all flammable liquids e.g. petrol, diesel, paints and thinners;
- 📄 Smoking shall be prohibited in the workplace and notices posted accordingly;

Health and Safety Specifications

April 2020

- 📄 Smoking areas with sand buckets or ash trays will be demarcated when site is established;
- 📄 Sufficient and suitable fire fighting equipment shall be provided and placed in strategic positions in the workplace (on vehicles and other positions as dimmed necessary);
- 📄 A Register shall be kept on type and number of equipment for each site in the Health and Safety File;
- 📄 A competent person shall inspect all fire fighting equipment;
- 📄 A sufficient and adequate number of employees shall be trained in the use of fire fighting equipment;
- 📄 A Register shall be kept in the Health and Safety File on site bearing the names of employees and type of fire fighting training received and completed with dates of training and training provider's name;
- 📄 Suitable and sufficient signs shall be erected in the workplaces indicating all escape routes;
- 📄 Escape routes shall be kept clear – a copy of the Evacuation plans shall be kept in the Health and Safety File as part of Induction Training provided;
- 📄 Combustible materials shall not accumulate on site;
- 📄 A siren is installed and sounded in the event of FIRE.

4.17 First Aid Boxes and First Aid Equipment

- a) The Principal Contractor and all Sub Contractors shall appoint in writing First Aider(s). The appointed First Aider(s) are to be sent for accredited first aid training. Valid certificates are to be kept on site,
- b) The Principal Contractor shall provide an on-site First Aid Station with first aid facilities, including first aid boxes adequately stocked at all times,
- c) All Sub Contractors with more than 5 employees shall supply their own first aid box,
- d) Sub-Contractors with more than 10 employees shall have a trained, certified first aider on site at all times,
- e) The first aider should ensure that the contents of the first aid box comply with the minimum legal requirement.

4.18 Accident / Incident Reporting and Investigation

- a) Injuries are to be categorised into first aid; medical; disabling; and fatal. The Principal Contractor must stipulate in its construction phase health & safety plans how it will handle each of these categories.

Health and Safety Specifications

April 2020

When reporting injuries to the Client, these categories shall be used. The Principal Contractor shall investigate all injuries, with a report being forwarded to the Client forthwith.

- b) All Contractors have to report on the 4 categories of injuries to the Principal Contractor at least monthly. The Principal Contractor must report all injuries to the Client in the form of a detailed injury report at least monthly. A 24 hour notification report must be submitted immediately before the end of the shift (see 24 Hour report template)
- c) Note that the P/Contractor must conduct its own independent incident investigation where a sub-contractor or other person is involved – a detailed investigation report must be compiled and made available to the H&S Agent.

All incidents reportable in terms of the provisions of Section 24 of the OHS Act must be reported to the local Dept. of Labour in the prescribed manner (Dept. of Labour contact number: Cape Town 021 441 8000 / 021 441 5500).

4.19 Hazards and Potentially Hazardous Situations

- a) The Principal Contractor shall immediately notify other Sub Contractors as well as the Client of any hazardous or potentially hazardous situations that may arise during performance of construction activities.

4.20 Personal Protective Equipment (PPE) and Clothing

- a) The Principal Contractor shall ensure that all workers are issued and wear hard hats, safe footwear and overalls. The Principal Contractor and all Sub Contractors shall make provision and keep adequate quantities of SABS approved PPE on site at all times.
- b) The Principal Contractor shall clearly outline procedures to be taken when PPE or Clothing is:
 - o Lost or stolen;
 - o Worn out or damaged.
- c) The contractor shall ensure that all employees are provided with appropriate personal protective equipment suitable for the type of activities that the employees will perform. These shall include but is not limited to:
 - o Hand protection
 - o Ear protection
 - o Eye protection



April 2020

Health and Safety Specifications

- Non-slippery safety shoes
 - Overalls
 - Reflective vests
 - Hard hats
 - Life jacket when working nearer than 5m from the quay side
 - Safety harnesses/safety Belts
 - Rain Suit
- d) The contractor shall further ensure that all PPE is worn during the carrying out of activities/ task at all times.

The above procedure applies to Sub Contractors and their contractors, as they are all Employers in their own right.

4.21 Occupational Health and Safety Signage

- a) The Contractor shall provide adequate on-site OHS signage. Including but not limited to:
- no unauthorised entry,
 - report to site office,
 - site office,
 - beware of overhead work,
 - hard hat area.
- b) Signage shall be posted up at all entrances to site as well as on site in strategic locations e.g. access routes, stairways, entrances to structures and buildings, scaffolding, and other potential risk areas/operations.
- c) The contractors employees shall comply with all SHE signage posted at various locations of TNPA Port of Cape Town.
- d) The contractor shall after occupation of the construction site ensure that appropriate SHE signs are displayed on site.
- e) Compliance to the signs shall be monitored by the TNPA Audit team (Engineers/Technicians & SHE Officer for the project).

4.22 Contractors and their Sub-contractors

The Principal Contractor must ensure that all Contractors appointed by it comply with these Specifications as well as with the OHS Act, the Construction Regulations, and other relevant legislation including project-specific rules and guidelines documentation that may relate to the activities directly or indirectly. A Contractor when appointing other Contractors as 'Sub-contractors', shall mutatis mutandis ensure compliance as if it was the Principal Contractor.

The Principal Contractor may only allow a Contractor to begin work on site after receiving a suitable health & safety plan which must include a project-specific hazard identification, risk assessment and safety & health procedures documentation. The Principal Contractor must audit each of its contractors at least every 30 days, with audit reports kept in the health & safety file on site. **The audit must include an administrative assessment of H&S documentation as well as a physical inspection of the contractor's site activities and operations.**

A Principal Contractor must stop any Contractor from carrying out construction work that is not in accordance with the Principal Contractor's and/or its Contractor's health & safety plan or if there is an immediate threat to the health and safety of persons.

- A Principal Contractor shall take all reasonable steps necessary to ensure co-operation between all contractors including other Principal Contractors to enable each of those contractors to comply with the provisions of the Construction Regulations;
- A Principal Contractor shall take all reasonable steps to ensure that each contractor's health and safety plan is implemented and maintained on the construction site: Provided that the steps taken shall include periodic audits at intervals mutually agreed upon between the Principal Contractor and contractors, but at least once every month;
- A Principal Contractor must ensure that where changes are brought about to the design and construction, that sufficient health and safety information and appropriate resources are made available to contractors so as to allow them to execute the work safely;
- A Principal Contractor must ensure that every contractor is registered and in good standing with a recognised compensation fund or with a licensed compensation insurer prior to work commencing on site;
- A Principal Contractor must ensure that potential contractors submitting tenders have made provision for the cost of health and safety measures during the construction process;
- A Principal Contractor shall discuss and negotiate with the contractor the contents of the health and safety plan and shall finally approve that plan for implementation;
- A Principal Contractor shall hand over a consolidated health and safety file to the client upon completion of the construction work and shall include a record of all drawings, designs, materials used and other similar information concerning the completed structure;
- A Principal Contractor may only appoint a contractor to perform construction work when such Principal Contractor is reasonably satisfied that the contractor he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely.

Please note that a **labour broker** is **not** deemed to be an Employer in terms of the Occupational Health and Safety Act, and workers supplied by these entities must be treated as if they were your own employees. So called "Labour Only" Contractors will be deemed to be employees of the Principal

Health and Safety Specifications

April 2020

Contractor and all aspects pertaining to their activities in relation to the OHS Act must be managed by the Principal Contractor concerned. No Mandatory Agreements may be entered into with such Labour Only Contractors unless all legal requirements have been met by the Labour Only Contractor concerned.

4.23 Incentives & Penalties

Penalties will be implemented for ongoing non-compliance to the provisions of the construction-phase health & safety plan as submitted by the Principal Contractor.

Penalties may be imposed on the Principal Contractor and Contractors for ongoing non-compliance with the provisions of the Client's health & safety specifications, the Principal Contractor's health & safety plan, and site health & safety procedures and rules, including: **Consultants rules, procedures, and specifications; Client and CHSA-specific rules/protocols. The P/Contractor can also impose penalties on its sub-contractors and on other Directs within its area of responsibility.** Non-compliances identified during CHSA audits, inspections, surveys and visits will be categorised into one of four levels based on frequency of incident and severity of incident. These will be as follows:

Life threatening situation – a prohibition notice/order will be issued by means of a written instruction in the site instruction book or an explanation/detail in an audit report/e-mail. The activity in question must then be ceased immediately and corrective measures taken to the satisfaction of the H&S Agent after which permission will be given to resume the activity. A penalty can also be imposed on the P/Contractor or other Contractor as the discretion of the CHSA.

Penalties will be imposed by TNPA on Principal Contractors who are found to be infringing these specifications, legislation and safety plans.

The Principal Contractor will be advised in writing of the nature of the infringement and the amount therefor. The Principal Contractor must determine how to recover the fine from the relevant employee and/or sub-contractor. The Principal Contractor must also take the necessary steps (e.g. training) to prevent a recurrence of the infringement and must advise TNPA accordingly. The Principal Contractor is also advised that the imposition of penalties does not replace any legal proceedings.

Penalties will be between R200 and R20 000, depending upon the severity of the infringement. The decision on how much to impose will be made by the TNPA SHE Representative, and will be final. In addition to the penalties, the Principal Contractor must be required to make good any damage caused as a result of the infringement at his/her own expense.

The preliminary list below outlines typical infringements against which TNPA may raise penalties; however, this list must not be construed as final:

- Failure to keep a copy of OHS-ACT on site.

Health and Safety Specifications

April 2020

- Failure to maintain an up-to-date letter of good standing with the Compensation Commissioner / FEM.
- Working on site without attending Safety Induction Training.
- Failure to conduct Safety Induction for personnel and visitors on site.
- Failure to issue and wear Personal Protective Clothing and Equipment.
- Failure to fully stock first aid box in accordance to the risks identified.
- Failure to disclose or report first aid cases and /or minor/major/fatalities as prescribed by the OHS-ACT.
- Failure to adhere to written safe work procedure as stipulated in the Hazard Identification and Risk Assessment and safety plan.
- Failure to maintain records and registers as per the OHS Act of 1993 and its regulations.
- Failure to conduct audits and inspections as required by legislation.
- Keeping un-serviced fire equipment on site.
- Failure to make use of ablution facilities.
- Failure to remove personnel on site who appears to be under the influence of intoxicating liquor or drugs.
- Failure to close out previously raised non-conformances.
- Failure to make and update legislative appointments.
- Failure to adhere to the OHS Act of 1993 and its regulations.

5. PHYSICAL REQUIREMENTS

5.1 Demolition Work

- a) Prior to any demolition work being carried out, the Principal Contractor shall submit a safe working procedure and a detailed engineering survey for approval by the Client. Acceptance will then be issued to the Principal Contractor to proceed with the demolition work. The Principal Contractor shall ensure that demolition work complies with the Construction Regulations 2014.

5.2 Work in Confined Spaces

When any work is planned in either existing confined space or new confined spaces the Principal Contractor must do a risk assessment and test to determine whether the atmosphere is safe and will remain safe for the duration of the work taking place. He must take into account the type of work and equipment that will be used in the process if it could impact on the air quality. Further the contractor must ensure compliance with the options in terms of the provisions of General Safety Regulation 5.

5.3 Fall Protection / Scaffolding / Working in Fall Risk Positions

Working at heights includes any work that takes place in a fall risk position. The Principal Contractor must submit a risk-specific fall protection plan in accordance with the Construction Regulations before this work is undertaken.

All scaffolding must comply with the requirements of SANS 10085-2004. Scaffolding must be declared safe for use by a competent scaffold inspector who must complete the scaffold register and tag the scaffold accordingly. All scaffolds must be tagged either 'safe' or 'unsafe'. Inspections must then be carried out weekly, after bad weather, after any alterations, after an incident, and before dismantling. The Principal Contractor must keep all scaffold inspection registers on site. **The Principal Contractor must also appoint one of its own supervisory members to supervise/co-ordinate scaffolding on site (P/Contractor scaffold co-ordinator). All persons involved with the erection/alteration/dismantling of scaffolding must be certified as either a scaffold general worker who may only work on ground level, a scaffold erector who may work in elevated positions, erection scaffolding, a scaffold team leader, a scaffold inspector, or a scaffold supervisor. The necessary certifications must be available on site.**

Working in fall risk positions requires the preparation of a fall protection plan (FPP). Contractor FPP's must be compiled, and submitted to the P/Contractor for assessment and final approval well before any elevated work may be undertaken by such contractor. The plan must include all relevant fall related risk assessments and safe work procedures. All persons working in elevated positions must be evaluated for physical fitness – such evaluation may only be performed by a certified occupational health practitioner. The Principal Contractor and Contractors must explain their methodologies in this regard in their H&S Plans. All persons working in elevated positions must be informed of the risks and safety measures (in other words all workers must be trained on the fall protection plan, in the form of a toolbox safety talk) and records of this training/information session must be kept on site. The fall plan developer must have US 229994 accreditation.

Work from fall risk positions may only be conducted as if it were being conducted from a safe ladder or safe scaffold. All openings, edges, and the like must be adequately guarded (see 'edge protection and penetrations' above).

Where fall prevention or fall arrest devices are being used, the correct devices must be used for the intended purpose and they must be properly inspected and maintained. Workers must be trained in the use and maintenance of the fall prevention and arrest equipment/devices. Safety belts as a method of fall arrest are prohibited. Full body harnesses must be worn. Where lifelines or other devices are required, such devices must be detailed in the fall protection plan of the Contractor concerned and approved by the P/Contractor before such work begins. Workers must have the opportunity to be secured from falling at all times, ensuring **100% fall protection on this project is a minimum requirement.**

All scaffolding platforms above 2m from the ground must be complete with guardrails and toe boards and must be fully boarded as per the requirements of general-purpose scaffold platforms (5-board platforms).

Health and Safety Specifications

April 2020

Mobile scaffolds may not exceed 3 x their minimum base width in height and must be adequately boarded as per their loading requirement. Mobile scaffolds and static frame towers must be erected as per the manufacturers' requirements (copies of these erection specifications/data sheets must be available to the scaffold erectors and scaffold supervisor on site). A copy of the scaffold code of practise must be available on site (SANS 10085-2004).

Temporary gangways/elevated access walkways must comprise of at least three scaffold boards (675mm wide) with guardrails on either side when such walkways are above 2m from the ground. Such gangways and other platforms must be supported from below, preventing excessive loading and platform collapse.

Loading of scaffolds with materials, personnel and equipment must be in accordance with the maximum loadings as specified by the consulting engineers. The P/Contractor and contractors must be clear on the maximum loadings before carrying out any activities where maximum loadings are in question.

Special scaffolds must be designed by an engineer and erected in accordance with a design drawing. Such special scaffolds must be inspected and signed off before use.

Strategic entrances into/under construction zones (such as into the structure being demolished) must be clearly designated and crash decks/catch nets provided above these designated entrances/walkways where there is a risk of falling objects/materials, minimising the chance of objects falling onto persons entering/exiting below.

This project is located in a operational port with public walkways, roadways and buildings bordering the construction work zones. Public protection will therefore have to be a priority and all measures taken to eliminate fall related risks to members of the public. The demolition of the existing caisson will need to be undertaken with all the necessary public protection protocols being followed eliminating any risk of injury to the public/workers.

5.4 Edge Protection and Penetrations

The Principal Contractor must ensure that all exposed edges and openings are guarded and demarcated at all times to prevent persons and/or vehicles and mobile plant from falling into such openings.

Contractors have the following options when contemplating the protection of openings, decking and slabs edges:

1. A physical barrier at the edge of the opening/slab (elevated decks and floors), which must be strong enough to carry the weight of a person in the process of falling (wire and danger tape/netting will not be deemed sufficient). Barriers must be of timber or scaffold tubes at a height of one meter above the ground or floor level and supported at intervals stipulated by the temporary works designer;
2. Scaffold complete with a fully boarded platform at the same level of the edge with a handrail and toe board, could serve as a fall protection measure;
3. Orange barrier netting at least 2m from the actual edge. **The site itself (work zone) must also be enclosed by a solid fencing system.**

Health and Safety Specifications

April 2020

The Principal Contractor's fall protection plan must detail all foreseen fall protection procedures. Contractors will need to do the same.

The placement of edge protection at deck/floor edges must be co-ordinated so as to minimise the time that such edge protection is not in place.

The removal of edge protection from decks/floors and the subsequent replacement thereof at the finished floor edge must be systematically co-ordinated by the Principal Contractor so as to minimise the time that edge protection is not in place.

5.5 Stacking of Materials

- a) The Principal Contractor and other relevant Sub Contractors shall ensure that there is an appointed staking supervisor and all materials, formwork and all equipment is stacked and stored safely.

5.6 Hazardous Chemical Substances (HCS)

- a) The Principal Contractor and other relevant Sub Contractors shall provide the necessary training and information regarding the use, transport, and storage of HCS. The Principal Contractor shall ensure that the use, transport, and storage of HCS are carried out as prescribed by the HCS Regulations.
- b) The Contractor shall ensure that all hazardous chemicals on site have a Material Safety Data Sheet (MSDS) on site and the users are made aware of the hazards and precautions that need to be taken when using the chemicals.
- c) The First Aiders must be made aware of the MSDS and how to treat HCS incidents appropriately.

5.6.1 Handling and storage of HCS

- a) The contractor shall before commencement of the contract provide TNPA Port of Cape Town with a complete list of solvents and or chemicals contractor/client intend to use at the various workplaces
- b) The contractor shall have a contingency plan in place that adequately addresses solvent and or chemical spillages at the various workplaces.
- c) The contractor shall ensure that its employees are informed of the hazards and risks associated with the use of the solvents and or chemicals, and records must be kept of such information session.
- d) The contractor shall provide each location with a file of all solvents and or chemicals to be used at that work place and one comprehensive file must be submitted to TNPA, SHE with all MSDS documents

Health and Safety Specifications

April 2020

- e) MSDS documents must comply with the criteria set out in the Hazardous Chemical Substances Regulations Section 9A.
- f) No bulk storage of chemicals and cleaning substances are allowed on TNPA premises (<20Liters per substance).
- g) All chemical containers shall be kept closed after use or when stored
- h) No illegal or banned substances are allowed on site

5.6.2 Labelling of Containers

- a) The contractor shall ensure that all containers containing solvents and or chemicals are clearly labelled and no decant takes places or allow its workers to decant solvents and or chemicals into unlabelled containers.

6. PLANT AND MACHINERY

6.1 Construction Plant

- a) "Construction Plant" includes all types of plant including but not limited to, cranes, piling rigs, excavators, road vehicles, and all lifting equipment.
- b) The Principal Contractor shall ensure that all such plant complies with the requirements of the OHS Act 85/1993 and Construction Regulations 2014. The Principal Contractor and all relevant Sub Contractors shall inspect and keep records of inspections of the construction plant used on site.
- c) Only authorised/competent persons are to use machinery under proper supervision. Appropriate PPE and clothing must be provided and maintained in good condition at all times.
- d) Proofs of medical test as required by the Construction regulations 2014 are available for inspection by the Client.
- e) Vehicles shall not enter site with:
 - o Defective exhaust systems
 - o Serious oil or fuel leaks
 - o Unsafe bodywork or loads
 - o Non-standard equipment fitted.
 - o Improperly seated passengers
 - o Any obvious mechanical defects.



6.2 Pressurised Equipment (PIR) and Gas Bottles

- a) The Principal Contractor and all relevant Sub Contractors shall comply with the Vessels under Pressure Regulations, including:
- Providing competency and awareness training to the operators
 - Providing PPE or clothing
 - Inspect equipment regularly and keep records of inspections
 - Providing appropriate firefighting equipment (Fire Extinguishers) on hand

6.3 Fire Precautions on construction sites (CR29)

- a) 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:
 - i. only suitably protected electrical installations and equipment, including
 - ii. portable lights, are used;
 - iii. there are no flames or similar means of ignition;
 - iv. there are conspicuous notices prohibiting smoking;
 - v. oily rags, waste and other substances liable to ignite are without delay removed to a safe place; and
 - vi. 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;

Health and Safety Specifications

April 2020

- the fire equipment 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:
 - i. persons to be evacuated speedily without panic
 - ii. persons to be accounted for;
 - iii. plant and processes to be shut down; and
 - iv. siren is installed and sounded in the event of a fire.

6.3.1 Fire Extinguishers and Fire Fighting Equipment

- a) The Principal Contractor and relevant Sub Contractors shall provide adequate, regularly serviced firefighting equipment located at strategic points on site, specific to the classes of fire likely to occur.
- b) The appropriate notices and signs must be posted up as required. A Fire risk survey must be conducted by a competent person; proof of survey must be kept in the Site Safety File.

6.4 Hired Plant and Machinery

1. The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use. The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations 2014 shall apply.
2. The Principal Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the health and safety file. All relevant Sub Contractors must ensure the same.
3. Under no circumstances shall the contractors or unauthorized employees be permitted to use Transnet NPA cranes, hoist, lifts or any other equipment including vehicles and forklift trucks. If the use of any of the above equipment is required, application must be made to the person in charge, i.e. the Project Manager or OHS Manager.

6.4.1 Equipment and machinery

- a) All equipment and machinery shall be in good working order and compliant with legal requirements.
- b) Cleaning or repairing of equipment is not permitted in premises unless permission is granted.
- c) All lifting equipment is identified and load-tested
- d) Equipment and machinery (band saw or band knives) must be effectively Safely guarded
- e) The contractor shall ensure that all tools and materials are kept under lock and key and an inventory be kept on site.
- f) Contractors shall provide their own equipment which must comply with the standards put down in the Occupational Health and Safety Act (85 of 1993)

6.5 Scaffolding / Working at Heights

- a) Working at heights includes any work that takes place in an elevated position. The Principal Contractor must submit a risk-specific fall prevention plan in accordance with the Construction Regulations 2014 before this work is undertaken.
- b) The Client must approve the fall prevention plan before work may commence. Mechanical hoist to be used to carry material up the scaffold, depending on height.
- c) All scaffolding that are erected on site, shall comply with the provisions of relevant SANS codes and regulations.
- d) The scaffolding must be erected by competent personnel and such personnel shall be appointed in writing.
- e) In case of overhead work the area must be safely secured and identified with signs
- f) Scaffolding must be inspected by a competent person (Scaffolding Inspector) and signed off for safe to use and the register must be kept on site
- g) All scaffoldings declared shall be tagged as safe or unsafe to use by a competent person
- h) Safety harnesses/ belts must be inspected/checked and are used as required by legislation

6.6 Temporary works

- a) The Principal Contractor shall ensure that the provisions of section 12 of the Construction Regulations 2014 are adhered to. These provisions must include but not be limited to ensuring that all equipment used is examined for suitability before use; that all formwork and support work is inspected by a

Health and Safety Specifications

April 2020

competent person immediately before, during and after placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work has been removed.

- b) Records of all inspections must be kept in a register on site.

6.7 Lifting Machines and Tackle

- a) The Principal Contractor and all Contractors shall ensure that lifting machinery and tackle is inspected before use and thereafter in accordance with the Driven Machinery Regulations and the Construction Regulations (section 22) and construction regulation 2014.
- b) There must be competent lifting machinery and tackle inspector who must inspect the equipment daily or before use, taking into account that:
 - o All lifting machinery and tackle has a safe working load clearly indicated.
 - o Regular inspection and servicing is carried out;
 - o Records are kept of inspections and of service certificates;
 - o There is proper supervision in terms of guiding the loads that includes a trained banks man to direct lifting operation
 - o The tower crane bases have been approved by an engineer;
 - o The operators are competent as well as physically and psychologically fit to work and in possession of a medical certificate of fitness to be available on site.

6.8 Ladders and Ladder Work

- a) The Principal Contractor shall ensure that all ladders are inspected monthly, are in good safe working order, are the correct height for the task, extend at least 1m above the landing, fastened and secured, and at a safe angle.
- b) Records of inspections must be kept in a register on site. Sub-Contractors using their own ladders must ensure the same. Ladders shall not be used as horizontal walkways or as scaffolding. Tools or equipment must be carried in suitable slung containers or hoisted up to the working position.

6.9 General Machinery

- a) The Principal Contractor and relevant Sub Contractors shall ensure compliance 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 who use machinery.

**6.10 Electrical Installation and Machinery (CR 24)**

- a) A Contractor must, in addition to compliance with the Electrical Installation Regulations, 2009, and the Electrical Machinery Regulations, 1988, promulgated by Government Notice No. R. 1593 of 12 August 1988, ensure that:
- before construction commences and during the progress thereof, adequate steps are taken to ascertain the presence of and guard against danger to workers from any electrical cable or apparatus which is under, over or on the site;
 - all parts of electrical installations and machinery are of adequate strength to withstand the working conditions on construction sites;
 - 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.

6.10.1 Portable Electrical Tools and Explosive Actuated Fastening Devices

- a) The Principal Contractor shall ensure that use and storage of all explosive actuated fastening devices and portable electrical tools are in compliance with relevant legislation.
- b) The Principal Contractor shall ensure that all-electrical tools, electrical distribution boards, extension leads, and plugs are kept in safe working order. Regular inspections and toolbox talks must be conducted to make workers aware of the dangers and control measures to be implemented e.g. personal protection equipment, guards, etc.
- c) The Principal Contractor shall consider the following:
- A competent person undertakes routine inspections and records are kept;
 - Only authorised trained persons use the tools;
 - The safe working procedures apply;

Health and Safety Specifications

April 2020

- Awareness training is carried out and compliance is enforced at all times; and
- PPE and clothing is provided and maintained.
- A register indicating the issue and return of all explosive round;
- Ensure that the cartridges and explosive devices is lock up separately
- Signs to be posted up in the areas where explosive actuated fastening devices are being used.

(WARNING - EXPLOSIVE ACTUATED FASTENING DEVICES).

6.10.2 High Voltage Electrical Equipment

- a) No high voltage electrical equipment is present on, under or above the construction area.

6.11 Public and Site Visitor Health and Safety

Public walkways and roadways must be kept clean and free of excessive construction materials so as to prevent any negative impact on the public. Public roadways and walkways will have to be cleaned on a regular basis – daily inspections to be conducted by the Principal Contractor with action to be taken without delay (daily). No loading/offloading or other construction activities may take place outside the designated construction site unless authorised by the Client's P/Agent.

The P/Contractor will have to assess all public areas adjacent to the site where potential risk of public injury and property damage is possible e.g. traffic back-ups in Port precinct; pedestrian access across the front of the premises and TNPA staff and visitor movement within the precinct; noise; dust; and must then provide suitable safety/health measures to the satisfaction of the H&S Agent and the Client

Public protection will therefore have to be a priority and all measures taken to eliminate fall related risks to members of the public. The demolition of the existing caisson will need to be undertaken with all the necessary public protection protocols being followed eliminating any risk of injury to the public and exposure of the public to such health and safety hazards.

Site visitors must be briefed on the hazards they may be exposed to as well as what measures are in place or should be taken to minimise these hazards. The Construction Regulations require that a record of these 'inductions' be kept on site. **It will be the duty of the Principal Contractor to manage all 'site-wide' H&S inductions including site visitors.**

Visitor hard hats and high visibility vests must be made available in the site office or other suitable location before visitors are exposed to construction dangers (10 no. of each).

The Principal Contractor must ensure that notices and signs are conspicuously displayed at the entrance and along the perimeter fence indicating "No Unauthorized Entry", "Visitors to report to office", "helmet and safety shoes" etc.

Health and Safety Specifications

April 2020

Health and safety signage must be well maintained throughout the project. This must entail cleaning, inspection and replacement of missing or damaged signage.

Furthermore, the Principal Contractor must ensure that:

- a) Nets, canopies, fans etc. are provided to protect the public passing or entering the site
- b) A security guard is provided where necessary and provided with a way of communication and an access control measures or register is in place
- c) All visitors to a construction site undergo health and safety induction pertaining to the hazards prevalent on the site.

6.12 Night Work

- a) The Principal Contractor must ensure that adequate lighting is provided to allow for work to be carried out safely.

6.13 Transport of workers

- a) The Principal Contractor and other Sub Contractors shall not:
 - o Transport persons together with goods or tools unless there is an appropriate area or section to store them;
 - o Transport persons in a non-enclosed vehicle, e.g. truck; there must be a proper canopy (properly covering the back and top) with suitable sitting area. Workers shall not be permitted to stand or sit at the edge of the transporting vehicle.

7. OCCUPATIONAL HEALTH AND HYGIENE

7.1 Occupational Hygiene

- a) Exposure of workers to occupational health hazards and risks is very common in any work environment, especially in construction. Occupational exposure is a major problem and all Principal Contractors must ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards. Prevent inhalation, ingestion, and absorption of any hazardous substance and high noise level exposure.

Health and Safety Specifications**7.2 Occupational Health****7.2.1 Fitness for Duty**

- a) The Contractor must ensure that personnel under its control and authority comply with the requirements of the Fitness for Duty and are bound by its Disciplinary Provisions, regarding the possible effects of:
- General level of personal fitness and/or medical conditions
 - The consumption of alcohol
 - The use of other drugs (prescription, pharmaceutical or illicit)
 - Fatigue
 - Stress

7.2.2 Health Assessments and Health Monitoring

- a) The principal contractor must ensure that all his personnel are healthy and medically fit for their respective assignments and must certify the same to TNPA if so requested. The Principal Contractor is responsible for Pre-placement, Exit Medicals and On-going Health Assessments.
- b) The Contractor must ensure that Operators of mobile equipment undergo “fit for work” medical examination every 1 year and Crane Operators engaged in lifting man boxes every 5 years. This medical is to certify that the Medical Practitioner has examined the Operator and formed the opinion that the Operator is free from deafness, defective vision, epilepsy, heart disease, and any other infirmity likely to cause the Operator to lose control of the machine being operated.
- c) The Contractor is responsible for the medical welfare of its own employees, servants or agents and their families.

7.2.3 Welfare Facilities

- a) The Principal Contractor must supply Sufficient toilets (1 toilet per 30 workers), showers (1 for every 15 workers), changing facilities, hand washing facilities, soap, toilet paper, and hand drying material must be provided. Waste bins must be strategically placed and emptied regularly. Safe, clean storage areas must be provided for workers to store personal belongings and personal protective equipment.

Health and Safety Specifications

April 2020

Workers should not be exposed to hazardous materials/substances while eating and must be provided with sheltered eating areas.

7.2.4 Alcohol and other Drugs

- a) No alcohol and other drugs will be allowed on site. No person may be under the influence of alcohol or any other drugs while on the construction site. Any person on prescription drugs must inform his/her superior, who shall in turn report this to the Principal Contractor forthwith.
- b) Any person suffering from any illness/condition that may have a negative effect on his/her safety performance must report this to his/her superior, who shall in turn report, this to the Principal Contractor forthwith.
- c) Any person suspected of being under the influence of alcohol or other drugs must be sent home immediately, to report back the next day for a preliminary inquiry. A full disciplinary procedure must be followed by the Principal Contractor or Sub Contractor concerned and a copy of the disciplinary action must be forwarded to the Principal Contractor for his records.

7.2.5 Periodic Medical

- a) All employees of contractors working within TNPA, Port of Cape Town shall undergo annual medical surveillance which will include:
 - o Hearing Tests
 - o Audio Tests and /or
 - o Other legislative required tests
- b) The contractor shall confirm in writing to TNPA, SHEQ Department that the intended employees to work at TNPA, Cape Town sites have been declared medically fit.

7.2.6 COVID - 19

Compliance with Disaster Management Act, 2002 Gazette number 43258 and DoL Gazette number 43257 dated 29 April 2020 as amended.

Due to the perceived high risk nature of the virus in question with regard to its apparent contagiousness and relatively high morbidity and mortality rate, as well as its spread on construction sites, we believe that contractors need to revise their project specific health &

**Health and Safety Specifications****April 2020**

safety plans and the assessment of their activity risks so as to integrate the associated control measures into the daily management of the project.

The following guidelines serve to assist contractors with devising project plans to minimise the spread of the virus.

1. Training and information:

As with general 'site-wide' H&S induction which is carried out by the principal contractor, it would be expected that all site personnel are informed of the COVID-19 site management procedures by the principal contractor in the form of formal information sessions held with small groups at a time. The 1st sessions are to be held on the day that the site commences its operations after lockdown. The observation of the 2m social distancing protocols would need to be enforced. It is then also required that daily info sessions are held by each subcontractor, reminding its personnel of the risks and health/hygiene protocols to be implemented and enforced.

2. Travel:

It is requested that employees are provided with face masks to be used by them during travel whether it be public or private. The restrictions on social distancing during commuting after lockdown are not yet known however these would need to be explained to employees.

3. Site access control and screening on entry:

It is advised that site access is formalised so as to include a screening station manned by a site clerk or other suitable person who will question persons on entry and as far as possible make use of a non-touch thermometer as a form of screening. Social distancing would need to be maintained at 2m as advised by best practise information available currently. Such screening would apply to all persons entering site, including site visitors. Note that it is required for visitors to site to be limited to only those necessary e.g. inspections by the appointed consultants and the like.

It is advised that personnel remain on during the day do not visit shops and other public places unnecessarily.

The use of breathalysers and biometric readers need to be taken out of service during the next while so as to minimise the contact transmission risks associated therewith.

Health and Safety Specifications

April 2020

Question screening would need to ascertain whether the person has come into contact with a 'positive case' and/or whether the person is suffering any of the classic symptoms i.e. cough, flu-like sore muscles, fever, night sweats or shivering, shortness of breath, sore throat.

The temperature screening would be to ascertain whether the person has a potential fever i.e. two readings of more than 37.5°Celsius, 15 minutes apart. After the 1st elevated reading, the person would need to be sent to the isolation zone to undergo the 2nd temperature screening and further questioning. A person with a temperature of over 38°Celsius would need the National Institute of Communicable Diseases (NICD) to be contacted. Contact them on 0800 029 999.

The site would need to identify an isolation area/zone in which such potential infected employees would be kept before deciding on transport to a health facility for further assessment or for dispatch to their home for self-isolation. Note that the assistance of the NICD will assist with the decision as to seek further assessment or to send home for self-isolation. Persons waiting at the isolation zone would need to wear a face mask and have properly sanitized hands and arms.

Persons having passed the screening would need to sanitise their hands and lower arms properly at the screening station and then move to their change areas where they would need to collect their personal protective equipment.

4. General site areas – touch/contact points

Common touch points such as balustrades, door handles, electrical equipment, chair arm rests, clock machines/cards, and the like would need to be cleaned/sanitised regularly. It is thus advised that dedicated cleaning staff be employed where necessary to ensure such things as replenishing sanitising stations and soap dispensers, cleaning elevators, balustrades, etc., and cleaning toilets and associated surfaces.

The use of elevators where at all possible should be limited as these are small, enclosed spaces. Should they need to be used, the number of personnel must be limited based on the size of the elevator. Push button panels and the like need to be sanitised regularly. A sanitising station also needs to be located within the elevator.

5. Social distancing:

Social distancing is advised to be at 2m. This would need to be implemented and enforced by site management.

Health and Safety Specifications

April 2020

The principal contractor would need to identify 'hot spots' on site where high volumes of personnel gather such as changing areas, mess areas, stores and the like. These would need to be reviewed and perhaps even reconfigured so as to reduce such gatherings to the 2m distancing and to smaller groups.

It is further required that gatherings on site such as meetings, info sessions, task discussions and the like are minimised to essential persons and that distancing is observed at all times. The reason for the distancing is simply to minimise the transmission of the virus through the air (sputum droplets due to coughing, sneezing, spitting while talking) from one person to the next.

Social distancing also needs to be implemented on public transport and at home i.e. away from the workplace. This is easier said than done however we await the next set of instructions from our Government wrt post lock-down or lockdown easing social distancing, travel, and gatherings.

6. Personal hygiene:

Apart from the sanitising station on entry to site, the principal contractor would need to ensure that other strategic sanitising stations are set up allowing for regular sanitising of persons' hands. Such stations also need to be set up outside offices, stores, meeting rooms and the like. It is advised that sanitising be done at least once per hour.

Adequate numbers of ablution facilities and hand washing basins need to be provided with soap and hand drying paper or similar. Hands need to be washed before eating, after eating, after using the ablutions, on entry to site, and before exiting site, as well as the regular sanitising of hands during the day.

Info posters need to be posted up at ablutions and at sanitising stations reminding personnel of the risks and hygiene measures to be implemented and enforced, on site, during travel, at home, and in public spaces.

7. Personal protective equipment and clothing:

It is advised, in line with common practise now, that personnel wear face masks as far as possible especially in areas where distancing is difficult and where work is in enclosed spaces. We also await further direction from our Government on this control measure. It is however advised that personnel making use of transport, whether public or private, wear face masks at all times.

Face masks and gloves should be sanitised at the end of each day and stored adequately. Overalls would also need to remain at work.

Health and Safety Specifications

April 2020

8. Ventilation:
Workplaces would need to be adequately ventilated so as to minimise the concentration of viral loads in such areas. Small, enclosed spaces such as elevators would require the use of face masks.
9. Meetings and other forums:
Meetings and other gatherings would need to be limited to the very necessary and should limit the number of persons so as to observe the social distancing requirements. We await further guidance from our Government wrt numbers that form a gathering as per definition. The use of face masks would be a consideration if not a requirement in the short-term during meetings and the like.
10. Management of persons suspected of having been exposed to the virus:
Persons who have contracted the disease -

This is someone who has tested positive to the COVID-19 strain of the virus. Such person will need to be isolated for at least 14 days after which a medical certificate needs to be attained to show that such person may return to work.

Persons who may have come into contact with such person, especially those involved on site need to be tracked, traced, and screened so as to decide on self-isolation or testing.

Suspected exposure -

A person who has an elevated temperature of over 37.5°Celsius i.e. two successive screenings 15 minutes apart needs to be sent home for self-isolation. Such person needs to wear a mask and must be contacted by his employer (contractor) before the end of the day to assess the person's condition and to advise the person as to whether further health assessment is necessary. A person with a temperature of over 38°Celsius needs the NICD to be contacted for assistance i.e. whether a health assessment is required or whether the person needs to go directly home for self-isolation. This person's contacts need to be tracked and recorded.

Should a person have come into contact (within 2m) with a confirmed positive case, even if such case only became positive after such contact, the person needs to call the NICD hot line and go directly home for isolation or follow other directions from the NICD which could include a screening or even a test.



8. Diving Work (R41 of 2010)

Where the construction work requires the use of commercial divers the appointed contractor must comply with the provisions of the Diving Regulations of 2009. The diving supervisor shall be a separate appointment to the construction work supervisor. A copy of the operations manual as well as risk assessment must be kept in the site office as part of the safety file for perusal by interested and affected parties.

9. SECTION 37 AGREEMENTS

- a) **This document is a legal agreement in terms of section 37(2) of the OHS Act 85 of 1993. The agreement is between the clients (TNPA) and the Contractor.**
- b) The agreement will confirm that the appointed person of any company will remain responsible and accountable for his own employees, including any labour hire employees.
- c) Have the agreement form completed and signed by the Chief Executive Officer or Managing Director of your company as soon as possible and return it to the relevant project manager for his signature.
- d) The relevant **TNPA Project Manager** will sign the agreement on behalf of the client.

10. SHE INSPECTIONS

- a) TNPA SHEQ department will conduct SHE inspections at a frequency determined by themselves based on the level of risk of the project.
- b) The Contractor is always expected to be compliant at all time within the workplaces where the contractor delivers a service to TNPA Port of Cape Town.
- c) Construction Projects will be classified into High/Medium/Low risk with the frequency of inspections being higher depending on the level of risk.

11. SHE COMMUNICATION & AWARENESS

- a) The Contractor shall notify TNPA of any complaints lodged by a third party, and request appropriate information and measures to address such complaints. The Contractor is responsible for maintaining a complaints register in which all complaints are recorded, as well as action taken. This register shall be

Health and Safety Specifications

April 2020

available to TNPA on request. Monthly news flashes are communicated by e-mail and SHE notice boards.

- b) The contractor's employees will refer to the SHE notice boards in their areas of work for SHE communication.
- c) Monthly news flashes are communicated by e-mail and SHE notice boards.

12. INCIDENT AND ACCIDENT REPORTING/ INVESTIGATION

- a) The contractor shall ensure that its employees report all incidents and accidents to TNPA, SHEQ Department immediately or before the end of their shift.
- b) It is the responsibility of the Contractor to report the reportable incident/Accident according to the relevant legislation (OHS Act 85 of 1993, NEMA Act 107 of 1998, Merchant Shipping Act) to the Department of Labour as stipulated within the Act.
- c) The contractor or a duly authorized representative shall form part of the investigation process.
- d) The contractor shall ensure that the recommendations upon acceptance are implemented successfully

13. INSURANCE

- a) The contractor shall effect at his own cost any insurance which he deem necessary in his own interest to cover lose and/or damage to the property of Transnet National Port Authority or a third party. At the time of award of the contract, the contractor shall submit to the Project Engineer copies of the policy or policies of insurance and the receipts for payment of the current premiums. These insurances shall be maintained in force for the duration of the contract and shall be affected with insurers and on terms approved by Transnet National Port Authority.
- b) The Contractor will be required to certify that he does carry the following insurance cover for the full duration of the Contract:
 - o Contractor's property - the full value of all material, plant and equipment brought on to the site by the Contractor for the performance of his obligations in terms of the contract.
 - o Public liability - the contractor shall take out a public liability insurance policy in an amount of R1 000 000, 00 (One Million Rand) per occurrence on terms approved by Transnet NPA.

14. SECURITY

- a) The Contractor shall:
- Adhere to the Port security measures as enforced by TNPA Port of Cape Town. The contractor is responsible for the safeguarding of his/her own equipment and material while on site and/or working in the Port.
 - Ensure that the contractor/ client has been screened and has a security clearance
 - Ensure has signed the confidentially agreement
 - Ensure that all the employees on his/her site adhered to security rules and Visitors card are worn at all times.

15. ENVIRONMENTAL REQUIREMENTS

- a) The contractor must carry-out an Environmental risk assessment that will identify all environmental risks. All employees must be familiar with environmental risks, their impact and preventatives measures. The contractor must have an environmental management plan (EMP) or Environmental Control Plan (ECP) at all times on site. The contractor/ client must comply with all applicable environmental legislation at all time in the site.

15.1 Waste Management

- a) A Waste Management Method Statement must be submitted to the TNPA for written approval.
- b) "Waste" means any substance, whether or not that substance can be reduced, re-used, recycled and recovered:
- That is surplus, unwanted, rejected, discarded, abandoned or disposed of
 - Which the generator has no further use of for the purposes of production
 - That must be treated or disposed of
- c) The Contractor shall institute on-site waste management program in line with Section 16 of the Integrated Waste management Plan (IWSP) general duties, clause 1e) to f), which states that, the holder of waste must, within the holder's power, take all reasonable measures to:
- Disposed responsible manner
 - Not endanger health/environment/cause nuisance-noise, odour or visual impact
 - Prevent any employee/any person under supervision from contravening this Act
 - Prevent the waste used for unauthorised purpose

Health and Safety Specifications

April 2020

- Contravention or failure to comply will result in a fine not exceeding R10M
- d) The waste management program will address, but is not limited to, the following:
 - An inventory of expected wastes and their categories;
 - Categories of waste;
 - Plan of dealing with waste;
 - Compliance with local authority requirements;
 - Auditing and monitoring;
 - Methods for dealing with spillages and clean up.
- e) All waste shall be collected and contained immediately. Contractor shall institute a cleanup of the site if so instructed by the TNPA SHEQ Officials. This clean up shall be for the contractor's account.
- f) Contractor shall not dispose of any waste and/or construction debris by burning or burying. The use of waste bins and skips is recommended. The bins shall be provided with lids and an external, secure closing mechanism to prevent their contents blowing out.
- g) Contractor shall ensure that all waste is deposited by his/her employees in the waste bins for removal by the local authority. Bins shall not be used for any purposes other than waste collection and shall be emptied on a regular basis.
- h) All waste shall be disposed of off-site at approved landfill sites and disposal certificate must be produced.

15.2 Dust / Smoke Control

- a) A Dust Control Method Statement must be submitted to the SHEQ Manager for written approval, where applicable.
- b) The Contractor shall be responsible for the continued control of dust arising from his operations. The Contractor shall inform the TNPA SHEQ Manager/Construction/Projects Safety Officer 48 hours in advance of anticipated "unavoidable" dust/smoke-generating activities.
- c) No vehicles are allowed to leave the Port covered with dust/mud/sand; vehicles must at all times be kept clean.
- d) Special precautions should be taken to minimise the generation of dust in the vicinity of the following sensitive areas:
 - Administration office blocks
 - Residential areas

Health and Safety Specifications

- Other (as specified by TNPA)

15.3 Noise Control

- a) The Contractor shall take precautions to minimise noise generated on site as a result of his operations, especially when working in areas or on activities that may impact on neighbouring land users.
- b) The Contractor shall comply with the applicable Bylaw Regulations with regards to noise, to be included into their detailed method statements.

15.4 Transportation

- a) Transportation of passengers in the load box of a bakkie will not be permitted in the Port.
- b) No transportation of passengers and material/equipment on the same load box will be allowed on site and in the Port.
- c) No hanging over the back of a bakkie or truck by people will be allowed within the Port of Cape Town. Bakkie(s) with an appropriate canopy and appropriate seating should be used for the transportation of people in the Port and on site.
- d) Speed limit within the Port is strictly 60 km/h unless otherwise indicated and no speeding will be tolerated.

16. GENERAL SITE PROCEDURE

16.1 Site establishment

- a) The Contractor is advised that certain areas within the port have been identified as being Environmentally Sensitive Areas. The contractor shall ensure that the construction activity has been carried out in a manner which the environment is been protected.
- b) In order to minimize adverse impacts to the sensitive area during construction activities the, sensitive area shall not be entered or used for any purpose unless a written motivation has been submitted to the SHEQ Manager by the Responsible Person, and a written approval has been received from the SHEQ Manager.
- c) The Contractor shall prevent physical disturbance or pollution of these areas. The SHEQ Manager may impose conditions on operations in or near sensitive area including instructing the Responsible Person to restrict the number of construction personnel and equipment operating near sensitive area in the port.

**16.2 Site Camp**

- a) Prior to establishment TNPA shall approve the location and size of the Contractor's Camp.
- b) It is also the responsibility of the contractor to ensure that the Contractor's Camp is neat and tidy and labourer's facilities are of acceptable standards.
- c) Proper housekeeping should be maintained at all times by the Contractor as it will also form the basis of the routine TNPA inspections.

16.3 Demarcation of the site

- a) It is important that activities are conducted within a limited area to facilitate control and to minimise the impact on the existing natural environment and the surroundings landowners.
- b) Contractor shall demarcate the boundaries of the site in order to restrict construction activities to the site.
- c) The method of demarcation and the location of the demarcated area shall be determined by the Contractor and approved by the TNPA prior to any work being undertaken.
- d) The Contractor shall ensure that all his plant, labour and materials remain within the boundaries of the site. Failure to do so may result in the Contractor being required to fence off the boundaries of the site at his own expense to the satisfaction of the TNPA.

16.4 Handling of waste in site camp

- a) Waste generated at the construction camps shall be separated into recyclable and non-recyclable waste, and shall be separated as follows:
 - Hazardous waste (including old oil, diesel, petrol tins, paint, bitumen, etc.)
 - Recyclable waste (paper, tins, glass etc.)
 - General waste
 - Reusable construction material
- b) Wastewater from any other ablution or kitchen facilities on site shall be discharged into a suitable, well-managed conservancy tank. The design specifications for conservancy tanks shall be submitted to the TNPA for approval. Contractor shall be responsible for ensuring that the system continues to operate effectively throughout the project and that the conservancy tank is emptied as required during the

Health and Safety Specifications

April 2020

- project. Contractor shall employ a suitably qualified sub-contractor or the local authority to empty the conservancy tank.
- c) Recyclable waste shall be deposited in separate skips/bins and removed off site for recycling. Contractor may wish to enter into an agreement with the surrounding communities and/or his staff with regard to the collection and sale of recyclable and reusable materials.
 - d) Hazardous waste, including waste oil and other chemicals (e.g. paints, solvents) shall be stored in (an) enclosed area(s) for the duration not exceeding the required time of the Waste legislation, and shall be clearly marked.
 - e) If deemed necessary by the TNPA, the Contractor shall obtain the advice of a specialist waste expert with regard to the storage of hazardous waste. Such waste shall be disposed off site by a specialist waste contractor, at a licensed hazardous waste disposal site. The Responsible Person (Holder of Waste) must maintain records proving the correct disposal of hazardous waste.
 - f) The TNPA shall be consulted about, and agree to, the method of storage and disposal of hazardous waste prior to the submission of a method statement.

16.5 Servicing / Refuelling of Construction Equipment

- a) Servicing and fuelling should preferably occur off site at designated Fuel Service Stations.
- b) However if these activities occur on site, the contractor shall ensure that all servicing of vehicles and equipment takes place in designated areas agreed upon by the TNPA. All waste generated by these activities shall be managed. The waste shall be collected and disposed of off-site at an appropriately licensed landfill site. All equipment that leaks onto the ground shall be repaired immediately or removed at the Contractor's cost.
- c) Similarly, no vehicles or machines shall be refuelled on site except at designated refuelling locations, unless otherwise agreed with the TNPA. The contractor shall not change oil or lubricants anywhere on site except at designated locations, except if there is a breakdown or an emergency repair. In such instances, the contractor shall ensure that he/she has appropriate absorbent materials (or equivalent) and/or preferably drip trays available to collect any oil, fluid, etc.

16.6 Fuels and Chemicals

- a) Contractor shall keep the necessary materials and equipment on site to deal with ground spills of any of the materials used or stored on site.

Health and Safety Specifications**April 2020**

- b) Contractor shall ensure that no oil, petrol, diesel, etc. is discharged onto the ground. Pumps and other machinery requiring oil, diesel, etc. that is to remain in one position for longer than two days shall be placed on drip trays. The drip trays shall be emptied regularly and
- c) The contaminated water disposed of off-site at a facility capable of handling such wastewater. Drip trays shall be cleaned before any possible rain events that may result in the drip trays overflowing and before long weekends and holidays.
- d) Used oil shall be stored at a central location on site prior to removal off site. Contractor shall remove all oil-, petrol-, and diesel-soaked sand immediately and shall dispose of it as hazardous waste.
- e) Should the TNPA SHEQ Manager and/or the relevant authorities deem it necessary to institute a programme for the removal of contaminated ground resulting from the noncompliance of the controls detailed above, these costs will be for the contractor's account. The TNPA SHEQ Manager and relevant authorities, if appropriate shall approve remedial action.

16.7 Tanker Terminal

- a) The contractor should comply with all applicable legislation, procedures and good practise of the tanker terminal. The contractor shall adhere to all the rules of this tanker terminal. These rules includes but not limited to the following:
- b) Cameras and other equipment that contain batteries may produce incentive spark from the flash or the operation of electrically-powered items aperture control and films winding mechanism. Therefore this equipment should not be used in hazardous areas, unless it is certified as being suitable for use in the hazardous area.
- c) Communication equipment can be used unless it is certified intrinsically safe or other approved design.
- d) All communication equipment such as telephone, talk back system, signal lamps, search lights loud hailers, cellular phoned, cigarette lighters , closed circuit television and electrical control for ship whistling should neither be used nor connected or disconnected when the area in which they are positioned come within the boundary of shore hazardous zone.
- e) No open flame as well as smoking is allowed in the Class 1 zone.

17. SITE REHABILITATION

- a) Contractor shall be responsible for rehabilitating any areas cleared or disturbed for construction purposes that are to be incorporated into the open space or buffer zones (e.g. pipeline routes, road fringes and roads).
- b) All construction equipment and excess aggregate, gravel, stone, concrete, bricks, temporary fencing and the like shall be removed from the site upon completion of the work. No discarded materials of whatsoever nature shall be buried on the site without the written approval of the TNPA. No dumping of many materials or aggregate without written approval from the SHEQ Manager.

18. MANAGEMENT AND MONITORING

- a) This section focuses on the systems and procedures required to ensure that the SHE Specification are effectively implemented. The emphasis is on monitoring, training and penalties/incentives aimed at ensuring compliance to the SHE Specification, Method Statements and SHE Legal requirements. Suitable documentation and external checks are crucial to ensure compliance and methods to achieve this are also presented in this section.

18.1 General Inspection Monitoring and Reporting

- a) TNPA shall:
 - Conduct SHE inspections at a frequency determined by the level of risk of the project.
 - The Contractor is always expected to be legally compliant at all time within the workplaces where the contractor delivers a service to TNPA Port of Cape Town.
 - Construction Projects will be classified into High/Medium/Low risk with the frequency of inspections being higher depending on the level of risk.
 - Provide the contractor with a monthly written report, detailing compliance and non-compliance with the SHE Specification, Method Statements and applicable SHE Legislation, as well as SHE performance. This SHE Performance and Compliance Report will be available to the Authorities, if it required by a RoD or Environmental Authorisation.
 - Maintain a record of major incidents (spills, impacts, complaints, legal transgressions etc) as well as corrective and preventive actions taken, for submission to the SHEQ Manager at the scheduled monthly report back meetings.

Health and Safety Specifications

April 2020

- If any major non-conformance and/or incident occur, TNPA reserves the right to stop work on site until the incident/non-conformance has been cleared or remedied to the satisfaction of TNPA. All costs incurred will be for the contractor's account including stoppage time, or time lost.
- Conduct regular internal audits to ensure that the system for implementation of the SHE Specification, Method Statements and Risk Assessment are operating effectively. The audit shall check that a procedure is in place to ensure that:
 - The method statements, SHE Specification and Risk Assessment being used are the current versions;
 - Variations to the Risk Assessment/Method Statements and non-compliances and corrective actions are documented; appropriate SHE training of personnel is undertaken;
 - Emergency procedures are in place and effectively communicated to personnel.

18.2 Licensing and Permits

- a) Any activity that requires a licence, permit of authorisation from the Port Authority or any Government Authority that is prescribed by legislative requirements must be obtained before the undertaking of the work.
- b) The contractor shall strictly comply with conditions and requirements pertaining to the issue of such permits. The contractor shall ensure compliance to these licences, permits or authorisations at all times. These include, but are not limited to the following;
 - Hot work permit
 - Cold work permit
 - Working in confined spaces,
 - Lock out certificate (in particular when doing electrical work)
 - Working at height (above 3 meters)
 - EIA-Record of Decision/Environmental Authorisation (usually conducted independently and provided by TNPA)
 - Gas free certificates
 - Isolation permits
 - Diving permits
 - Working with spark (Tanker terminal)

Health and Safety Specifications**April 2020**

- Heavy lifts
 - Work on electrical equipment
- c) The permit is essentially a document which describes the work to be done and the precaution to be followed while doing the work; it sets out all necessary safety procedures and the equipment. The permit should clearly specify the particular item of equipment or area involved the extent of work permitted, what condition are to be observed and time and duration of validity. The number of permit required will vary with the complexity of planned activity.

These Health & Safety Specifications were developed by Eppen-Burger & Associates cc for the sole use on this project and not intended for any other purpose.

It remains the intellectual property of TNPA and may not be copied, used or distributed in any way without written permission.

Prepared by André Burger, Construction Health & Safety Agent
PrCHSA/028/2015

**Project: Sturrock Caisson Gate Upgrade
Port of Cape Town**

Date: 5 May 2020



19. ANNEXURE A

DECLARATION OF ACCEPTANCE

I, _____ the Contractor, do hereby declare that
my Company

_____ acknowledges having read and
understood the conditions contained in this document and, furthermore the content will be
communicated to the employees and that all employees agree to abide by these conditions.

Representatives	Name and Surname	Signature	Date
Construction Manager (Contractor)			
Assistant Construction Manager (Contractor)			
SHE Officer (Contractor)			
Project Manager TNPA			
H&S Specialist TNPA			



20. ANNEXURE B

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993

Regulation 4 of the Construction Regulations, 2014

NOTIFICATION OF CONSTRUCTION WORK

1(a) Name and postal address of principal contractor:

(b) Name and tel. no of principal contractor's contact person:

2. Principal contractor's compensation registration number:

3. (a) Name and postal address of client:

(b) Name and tel. number of client's contact person or agent:



4. (a) Name and postal address of designer(s) for the project:

(b) Name and tel. number of designer(s) contact person:

5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 8(1).

6. Name/s of principal contractor's construction sub-ordinate supervisors on site appointed in terms of regulation 8(2).

7. Exact physical address of the construction site or site office:

8. Nature of the construction work:



Health and Safety Specifications

April 2020

9. Expected commencement date:

10. Expected completion date:

11. Estimated maximum number of persons on the construction site:

Total: _____ **Male:** _____ **Female:** _____

12. Planned number of contractors on the construction site accountable to the principle contractor:

Total: _____ **Male:** _____ **Female:** _____

13. Name(s) of contractors already selected:



Health and Safety Specifications

April 2020

Principal Contractor

Date

Client's Agent (where applicable)

Date

Client

Date

- THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.
- **ALL PRINCIPAL CONTRACTORS** THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.



21. ANNEXURE C

APPLICATION FOR A PERMIT TO DO CONSTRUCTION WORK

[In terms of Regulation 3(2) of Construction Regulations, 2014]

The application must be submitted with the following documents:

1. Health and Safety specification
2. Health and Safety Plan
3. Baseline risk assessment

1. Name , postal address and telephone numbers of the client:

2. Details of the Agent.

- a. Title, Surname and Initials _____
- b. Identity number /Passport Number _____
- c. Registration number with SACPCMP _____
- d. Office Tel. number and /or Mobile number _____
- e. Postal address _____

3. Name, postal address and telephone numbers of the appointed principal contractor.

4. Name ,Postal address and telephone numbers of designer of the project:



5. Name ,Postal address and telephone numbers of the following persons:

a. Construction Manager:

b. Construction Health and Safety Manager:

c. Construction Health and Safety Officer:

6. Exact physical address of the construction and site office:

7. Nature of Construction work:

8. Expected Commencement date:

9. Expected Completion date:

10. Estimated maximum number of persons on the construction site

11. Planned number of contractors on site accountable to principal contractor

12. Name(s) of Contractors appointed:

13. _____



Signature of Client/Client's Agent

14.

Signature of the Principal Contractor

Authorization

/Unique No.

FOR OFFICE ONLY

Labour Centre

Official Approval Stamp

15. Date of application: _____



16.Submitted documents prescribed in Construction Regulation 5(4) (please Tick v):
CR 5(1)(a) CR 5(1)(b) CR 5(1); (C-S)

17. Results of the application (please Tick v):	Approved	<input type="checkbox"/>	Declined	<input type="checkbox"/>
--	----------	--------------------------	----------	--------------------------

18.Reason for declining the application :

19. _____
Signature of the Supervisor

20. _____
Signature of revoking Officer /Inspector

22. ANNEXURE D**SITE ACCESS CERTIFICATE**

To the <i>Contractor</i>		Attention (Name)	
Address		Tel	
		Fax	
Date		E-mail	
Contract title / Project Scope		Contract / Order No.	
Access to (Area) :			
Validity Period of Access	Start Date:		
	End Date		

Transnet SOC Ltd allows access to, and use of each part of the Site to the above mentioned *Contractor* which is necessary for the work included in this contract. Access and use is allowed on the date of access shown on the Accepted Programme / Project Plan.

Note that the Contractor at all times is responsible for the control and safety of the site, and for persons under their control having access to the site. As from the date hereof you will be responsible for compliance with requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended, Railway Safety Requirements, Transnet Contractor Management Specification, National Key Point Requirements where applicable and all conditions of the Contract pertaining to the site of the works as defined and demarcated in the contract documents including the plans of the site or work areas forming part thereof. This shall include compliance to the site access control procedures. For these reasons we prefer to record the dates when access was given, as shown in the table below.



April 2020

Health and Safety Specifications

The *starting date* (from Contract data) is _____

Signature (for the Transnet Representative)

Name

Date

Signature (for the Health & Safety Representative)

Name

Date

Signature (for the Project/Contract Manager)

Name

Date

Please confirm your acceptance of this by signature of a Contractor's key person below.

I, _____ do hereby acknowledge and accept the duties and obligations in respect of the Safety of the site / area of Work in terms of the Occupational Health and Safety Act 85 of 1993 and or any other legislation and regulations applications.

Name: _____

Designation: _____

Signature: _____

Date: _____



23. ANNEXURE E

MANDATORY AGREEMENT

OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (AS AMENDED)

AGREEMENT WITH MANDATORY

In terms of Section 37(1) & (2)

WRITTEN AGREEMENT ENTERED INTO AND BETWEEN

Transnet SOC Ltd

(Hereinafter referred to as the Employer)

AND

(Hereinafter referred to as Mandatory (Principal Contractor))

Compensation Fund Number :

Project Name :



TABLE OF CONTENTS

- 1. DEFINITIONS**
- 2. INTERPRETATION**
- 3. REPORTING**
- 4. WARRANTY OF COMPLIANCE**
- 5. APPOINTMENTS AND TRAINING**
- 6. SUPERVISION, DISCIPLINE AND REPORTING**
- 7. ACCESS TO THE OHS ACT**
- 8. COOPERATION**
- 9. WORK PROCEDURES**
- 10. HEALTH AND SAFETY MEETINGS**
- 11. COMPENSATION REGISTRATION**
- 12. MEDICAL EXAMINATIONS**
- 13. INCIDENT REPORTING AND INVESTIGATION**
- 14. SUBCONTRACTORS**
- 15. SECURITY AND ACCESS**

*Health and Safety Specifications**April 2020*

16. FIRE PRECAUTIONS AND FACILITIES
17. ABLUTION FACILITIES
18. HYGIENE AND CLEANLINESS
19. NO NUISANCE
20. INTOXICATION NOT ALLOWED
21. PERSONAL PROTECTIVE EQUIPMENT
22. PLANT, MACHINERY AND EQUIPMENT
23. NO USAGE OF EMPLOYER'S EQUIPMENT
24. TRANSPORT
25. CLARIFICATION
26. DURATION OF AGREEMENT
27. NON COMPLINCE
28. HEADING

PREAMBLE

WHEREAS section 37(1) & (2) of the Occupational Health and Safety Act No 85 of 1993 ("the Act") requires that parties have an agreement in writing to ensure compliance by a mandatory in line with the provisions of the Act.

AND WHEREAS Transnet SOC Ltd requires the services of the Contractors to execute certain projects within its workshops.

Health and Safety Specifications

April 2020

AND WHEREAS TRANSNET SOC LTD can be better served by Contractors who have the infrastructure, specialist employees and expertise to execute such projects at the highest level of efficiency on short notice.

NOW THEREFORE the parties agree as follows;

1. DEFINITIONS

For the purpose of this agreement, unless the context indicates otherwise, the following definitions are set out for the terms indicated:

- 1.1 **"Act"** means the Occupational Health and Safety Act No 85 of 1993;
- 1.2 **"Agreement"** means this Mandatory agreement;
- 1.3 **"Contractor "** means the Mandatory;
- 1.4 **"COID Act"** means the Compensation for Occupational Injuries and Diseases Act No 130 of 1993.
- 1.5 **"Effective Date"** means the date of signature of this Agreement by the last party signing hereto;
- 1.6 **"Employer"** refers to TRANSNET SOC LTD;
- 1.7 **"Mandatory"** means an agent, Contractor or sub-contractor for work, but without derogating from the status in his own right as an employer or user;
- 1.8 **"Parties"** means TRANSNET SOC LTD and the Contractor, and **"Party"** shall mean either one of them, as the context indicates;
- 1.9 **"Principal Contract"** means the appointed contractor whereby such contractor has to provide goods and or services to TRANSNET SOC LTD.
- 1.10 **"Regulations"** means regulations promulgated in terms of the relevant legislation.
- 1.11 **"Section"** means the relevant section of the Occupational Health and Safety Act No 85 of 1993
- 1.12 **"Services"** means the services to be provided by the Contractor to TRANSNET SOC LTD.
- 1.13 **"TRANSNET SOC LTD"** means Transnet Group and all its operating divisions and Specialist units with (Registration No. **1990/000900/06**), a public company incorporated in accordance with the company laws of the Republic of South Africa;

2. INTERPRETATION

- 2.1 Clause headings in this Agreement are included for ease of reference only and do not form part of this Agreement for the purposes of interpretation or for any other purpose. No provision shall be construed against or interpreted to the disadvantage of either Party hereto by reason of such Party having or being deemed to have structured or drafted such provision.

**Health and Safety Specifications****April 2020**

2.2 Any term, word or phrase used in this Agreement, other than those defined under the clause heading "Definitions" shall be given its plain English meaning, and those terms, words, acronyms, and phrases used in this Agreement will be interpreted in accordance with the generally accepted meanings accorded thereto.

2.3 A reference to the singular incorporates a reference to the plural and vice versa.

2.4 A reference to natural persons incorporates a reference to legal persons and vice versa.

2.5 A reference to a particular gender incorporates a reference to the other gender.

3. REPORTING

3.1 The Mandatary and/or his designated person appointed in terms of Section 16(2) of the Occupational Health and Safety Act 85 of 1993 ("the OHS Act") shall report to the Risk Manager and/or a Project Manager and/or a representative designated by the Employer prior to commencing the work at the premises of the Employer.

3.2

4. WARRANTY OF COMPLIANCE

4.1 In terms of this Agreement the Mandatary warrants that he agrees to any of the arrangements and procedures as prescribed by the Employer and as provided for in terms of Section 37(2) of the OHS Act for the purposes of compliance with the OHS Act.

4.2 The Mandatary further warrants that he and/or his employees undertake to maintain such compliance with the OHS Act. Without derogating from the generality of the above, nor from the provisions of the said Agreement, the Mandatary shall ensure that the clauses as hereunder described are at all times adhered to by himself and his employees.

4.3 The Mandatary hereby undertakes to ensure that the health and safety of any other person on the premises is not endangered by the conduct of his activities and that of his employees.

5. APPOINTMENTS AND TRAINING

- 5.1 The Mandatary shall appoint competent persons as per Section 16(2) of the OHS Act. Any such appointed person shall be trained on any occupational health and safety matter and the OHS Act provisions pertinent to the work is to be performed under his responsibility. Copies of any appointments made by the Mandatary shall immediately be provided to the Employer.
- 5.2 The Mandatary shall further ensure that all his employees are trained on the health and safety aspects relating to the work to be done on the premises of the Employer and that they understand the hazards associated with such work being carried out on the premises. Without derogating from the foregoing, the Mandatary shall, in particular, ensure that all his users or operators of any materials, machinery or equipment are properly trained in the use of such materials, machinery or equipment.
- 5.3 Notwithstanding the provisions of the above, the Mandatary shall ensure that he, his appointed responsible persons and his employees are at all times familiar with the provisions of the OHS Act, and that they comply with the provisions of the Act.

6. SUPERVISION, DISCIPLINE AND REPORTING

- 6.1 The Mandatary shall ensure that all work performed on the Employer's a premise is done under strict supervision and that no unsafe or unhealthy work practices are permitted. Discipline regarding health and safety matters shall be strictly enforced against any of his employees regarding non-compliance by such employee with any health and safety matters.
- 6.2 The Mandatary shall further ensure that his employees report to him all unsafe or unhealthy work situations immediately after they become aware of such conditions and that he in turn immediately reports these to the Employer and/or his representative.

7. ACCESS TO THE OHS ACT

- 7.1 The Mandatary shall ensure that he has an updated copy of the OHS Act on site at all times and that this is accessible to his appointed responsible persons and employees, save that the parties may make arrangements for the Mandatary and his appointed responsible persons and employees to have access to the Employer's updated copy/copies of the Act.

Health and Safety Specifications

April 2020

8. COOPERATION

- 8.1 The Mandatary and/or his responsible persons and employees shall provide full co-operation and information if and when the Employer or his representative inquires into any occupational health and safety issues concerning the Mandatary. It is hereby recorded that the Employer and his representative shall at all times be entitled to make such inquiry.
- 8.2 Without derogating from the generality of the above, the Mandatary and his responsible persons shall make available to the Employer and his representative, on request, all and/or any checklists and inspection registers required to be kept by him in respect of any of his materials, machinery or equipment.

9. WORK PROCEDURES

- 9.1 The Mandatary shall, after having established the dangers associated with the work performed, develop and implement mitigation measures to minimize or eliminate such dangers for the purpose of ensuring a healthy and safe working environment. The Mandatary shall then ensure that his responsible persons and employees are familiar with such mitigation measures.
- 9.2 The Mandatary shall implement any other safe work practices as prescribed by the Employer and shall ensure that his responsible persons and employees are made conversant with such other safe work practices as prescribed by the Employer and that his responsible persons and employees adhere to such safe work practices.
- 9.3 The Mandatary shall ensure that work for which any permit is required by the Employer is not performed by his employees prior to the Employer obtaining such permit from the Mandatary.

10. HEALTH AND SAFETY MEETINGS

- 10.1 If required in terms of the OHS Act, the Mandatary shall establish his own health and safety committee(s) and ensure that his employees, being the committee members, provide health and safety representatives to attend the Employer's health and safety committee meetings.

11. COMPENSATION REGISTRATION

- 11.1 The Mandatary shall ensure that he has a valid proof of registration with the Compensation Commissioner, as required in terms of **COID Act**, and that all payments owing to the Commissioner are discharged. The Mandatary shall further ensure that the cover remain in force while any such employee is present on the premises.

12. MEDICAL EXAMINATIONS

- 12.1 The Mandatary shall ensure that all his employees undergo routine medical examinations and that they are medically fit for the purposes of the work they are to perform.

13. INCIDENT REPORTING AND INVESTIGATION

- 13.1 All incidents referred to in Section 24 of the OHS Act shall be reported by the Mandatary to the Department of Labour and to the Employer. The Employer shall further be provided with copies of any written documentation relating to any incident.
- 13.2 The Employer retains an interest in the reporting of any incident as described above as well as in any formal investigation and/or inquiry conducted in terms of section 32 of the OHS-Act into such incident.

14. SUBCONTRACTORS

- 14.1 The Mandatary shall notify the Employer of any subcontractor he may wish to perform work on his behalf on the Employer's premises. It is hereby recorded that all the terms and provisions contained in this clause shall be equally binding upon the subcontractor prior to the subcontractor commencing with the work. Without derogating from the generality of this paragraph:
- 14.1.1 The Mandatary shall ensure that training as discussed under appointments and training, is provided prior to the subcontractor commencing work on the Employer's premises.

Health and Safety Specifications**April 2020**

- 14.1.2 The Mandatary shall ensure that work performed by the subcontractor is done under his strict supervision, discipline and reporting.
- 14.1.3 The Mandatary shall inform the Employer of any health and safety hazards and/or issue that the subcontractor may have brought to his attention.
- 14.1.4 The Mandatary shall inform the Employer of any difficulty encountered regarding compliance by the subcontractor with any health and safety instruction, procedure and/or legal provision applicable to the work the subcontractor performs on the Employer's premises.

15. SECURITY AND ACCESS

- 15.1 The Mandatary and his employees shall enter and leave the premises only through the main gate(s) and/or checkpoint(s) designated by the Employer. The Mandatary shall ensure that employees observe the security rules of the Employer at all times and shall not permit any person who is not directly associated with the work from entering the premises.
- 15.2 The Mandatary and his employees shall not enter any area of the premises that is not directly associated with their work.
- 15.3 The Mandatary shall ensure that all materials, machinery or equipment brought by him onto the premises are recorded at the main gate(s) and/or checkpoint(s). Failure to do this may result in a refusal by the Employer to allow the materials, machinery or equipment to be removed from the Employer's premises.

16. FIRE PRECAUTIONS AND FACILITIES

- 16.1 The Mandatary shall ensure that an adequate supply of fire-protection and first-aid facilities are provided for the work to be performed on the Employer's premises, save that the Parties may mutually make arrangements for the provision of such facilities.

**Health and Safety Specifications****April 2020**

16.2 The Mandatary shall further ensure that all his employees are familiar with fire precautions at the premises, which includes fire-alarm signals and emergency exits, and that such precautions are adhered to.

17. ABLUTION FACILITIES

17.1 The Mandatary shall ensure that an adequate supply of ablution facilities are provided for his employees performing work on the Employer's premises, save that the parties may mutually make arrangements for the provision of such facilities.

18. HYGIENE AND CLEANLINESS

18.1 The Mandatary shall ensure that the work site and surround area is at all times maintained to the reasonably practicable level of hygiene and cleanliness. In this regard, no loose materials shall be left lying about unnecessarily and the work site shall be cleared of waste material regularly and on completion of the work.

19. NO NUISANCE

19.1 The Mandatary shall ensure that neither he nor his employees undertake any activity that may cause environmental impairment or constitute any form of nuisance to the Employer and/or his surroundings.

19.2 The Mandatary shall ensure that no hindrance, hazard, annoyance or inconvenience is inflicted on the Employer, another Mandatary or any tenants. Where such situations are unavoidable, the Mandatary shall give prior notice to the Employer.

20. INTOXICATION NOT ALLOWED

20.1 No intoxicating substance of any form shall be allowed on site. Any person suspected of being intoxicated shall not be allowed on the site. Any person required to take medication shall notify the relevant responsible person thereof, as well as the potential side effects of the medication.

21. PERSONAL PROTECTIVE EQUIPMENT

21.1 The Mandatary shall ensure that his responsible persons and employees are provided with adequate personal protective equipment (PPE) for the work they may perform and in accordance with the

Health and Safety Specifications

April 2020

requirements of General Safety Regulation 2 (1) of the OHS Act. The Mandatary shall further ensure that his responsible persons and employees wear the PPE issued to them at all material times.

22. PLANT, MACHINERY AND EQUIPMENT

22.1 The Mandatary shall ensure that all the plant, machinery, equipment and/or vehicles he may wish to utilize on the Employer's premises is/are at all times of sound order and fit for the purpose for which it/they is/are attended to, and that it/they complies/comply with the requirements of Section 10 of the OHS Act.

22.2 In accordance with the provisions of Section 10(4) of the OHS Act, the Mandatary hereby assumes the liability for taking the necessary steps to ensure that any article or substance that it erects or installs at the premises, or manufactures, sells or supplies to or for the Employer, complies with all the prescribed requirements and will be safe and without risks in terms of health and safety when properly used.

23. NO USAGE OF THE EMPLOYER'S EQUIPMENT

23.1 The Mandatary hereby acknowledges that his employees are not permitted to use any materials, machinery or equipment of the Employer unless the prior written consent of the Employer has been obtained, in which case the Mandatary shall ensure that only those persons authorized to make use of such materials, machinery or equipment, have access thereto.

24. TRANSPORT

24.1 The Mandatary shall ensure that all road vehicles used on the premises are in a roadworthy condition and are licensed and insured. The Mandatary shall ensure that all drivers shall have relevant and valid driving licenses and the Mandatary shall ensure that no vehicle/s shall carry passengers unless it is specifically designed to do and that all drivers shall adhere to the speed limits and road signs on the premises at all times.

24.2 In the event that any hazardous substances are to be transported on the premises, the Mandatary shall ensure that the requirements of the Hazardous Substances Act 15 of 1973 are complied with fully all times.

Health and Safety Specifications

April 2020

25. CLARIFICATION

25.1 In the event that the Mandatary requires clarification of any of the terms or provisions of this Agreement, he should take the necessary steps to contact the Risk Manager of the Employer to obtain such clarification.

26. DURATION OF AGREEMENT

26.1 This Agreement shall remain in force for the duration of the work to be performed by the Mandatary and/or while any of the Mandatary's employees are present on the Employer's premises.

27. NON COMPLIANCE WITH THE AGREEMENT

27.1 If the Mandatary fails to comply with any provisions of this Agreement, the Employer shall be entitled to give the mandatory 7 (seven) days written notice to remedy such non-compliance and if the Mandatary fails to comply with such notice, then the Employer shall forthwith be entitled but not obliged, without prejudice to any other rights or remedies which the mandatory may have in law,

271.1 to suspend the main Agreement; or

27.1.2 To claim immediate performance and/or payment of such obligations.

27.2 Should mandatory continue to breach the contract on three occasions, then the Employer is authorised to suspend the main contract without complying with the condition stated in the clause above.

28. HEADINGS

The headings as contained in this Agreement are for reference purposes only and shall not be construed as having any interpretative value in them or as giving any indication as to the meaning of the contents of the paragraphs contained in this Agreement.

Thus done and signed at _____ on the _____ day of _____ 201__



Health and Safety Specifications

April 2020

For and on behalf of the Employer

Witnesses:

1. _____

2. _____

at _____ on the _____ day of _____ 201__

for and on behalf of the Mandatary

Witnesses:

3. _____

4. _____



DRAFT

24. ANNEXURE F



INTEGRATED MANAGEMENT SYSTEM COMMITMENT STATEMENT

1. Transnet vision: "Fuelling Africa's growth and development as the leading provider of innovative supply chain solutions."
2. Operational inefficiencies and occurrences (rall, security, health & safety, service and product quality, environmental, energy, assets and etc.) pose a real risk to the achievement of this vision.
3. Leadership acknowledges its obligation to providing and maintaining a working environment that is not harmful to employees, public, assets and the environment. The organisation's philosophy is characterised by 5 principles adopted to ensure a just safety culture:
 - Principle 1: We believe that all occurrences are preventable;
 - Principle 2: We believe that Management is accountable for preventing occurrences;
 - Principle 3: We believe that all causes (exposures) of occurrences can be controlled;
 - Principle 4: We believe that all interventions are depended on a competent workforce; and
 - Principle 5: We believe that all employees have a duty to prevent occurrences.
4. **Our objectives are to:**
 - Prevent or at the least reduce the number of occurrences (e.g. personal injuries, train on train collisions, train derailments, motor vehicle accidents, property damage, environmental pollution, security breaches etc.);
 - Embed the human factor management processes;
 - Prevent occupational diseases, disabling injuries or fatalities in all operations;
 - Minimise waste, reduce, reuse and prevent pollution;
 - Promote efficient use of natural resources (e.g. water, energy, fuel, etc.); and
 - Improve operational efficiency.
5. **In order to deliver on our objectives, we commit to:**
 - Identify and manage our operational risks using an established hierarchy of controls;
 - Comply with all relevant laws, and company rules and regulations;
 - Establish realistic improvement targets, and monitor performance against these targets;
 - Implement risk based intervention plans to ensure continuous improvement;
 - Establish initiatives to address human factors;
 - Be a learning organisation; and
 - Make resources available in order to achieve set objectives.

This Commitment Statement should be read in conjunction with the applicable Organisational Policies

Date: 2018-01-24 Next review date: 30 November 2020


 Siyabonga Gama
 Group Chief Executive: Transnet



25. ANNEXURE G

CONTRACTOR REGISTRATION AND INDUCTION

**Health and Safety Specifications****April 2020**

Thank you for your enquiry regarding the TNPA Induction. It is important that you meet all requirements as specified below to allow an efficient booking into this induction. Completion of this form is required before a company or persons can be placed on TNPA's Contractor Register and allowed to commence work for or on behalf of TNPA on any buildings or grounds.

NOTE: *All other persons or visitors whom does not work for or on behalf of TNPA and does not have a valid purchase order number has to make arrangements with the Other Operating Divisions SHEQ department for induction.*

COMPANY DETAILS

Company Name	_____	Date	_____
Postal Address	_____	Suburb / City	_____
		Post Code	_____
Physical Address	_____	Suburb / City	_____
		Post Code	_____
Contact Office No:	_____	Contact Cell	_____
		No:	_____
Email Address:	_____		

TYPE OF INDUCTION (Please select one)

New Induction Re-induction

TNPA CONTACT DETAILS

TNPA Contact Person:	_____	Position Title	_____
Phone No:	_____	P/O Number	_____
Email Address:	_____		

OTHER OPERATING DIVISIONS (Select the area below where you will be allocated):

TPT TCP AGENTS OTHER
 TFR / RME STEVEDORING TENANTS

BUSINESS ACTIVITY (Select one activity with a cross which one of the below best describes your business):



Health and Safety Specifications

April 2020

<input type="checkbox"/> Air Compressors	<input type="checkbox"/> Construction	<input type="checkbox"/> Labour Hire	<input type="checkbox"/> Signage
<input type="checkbox"/> Air Conditioning	<input type="checkbox"/> Demolition	<input type="checkbox"/> Landscaping	<input type="checkbox"/> Stevedoring
<input type="checkbox"/> Animal Handlers	<input type="checkbox"/> Earthmoving	<input type="checkbox"/> Lawn Mowing	<input type="checkbox"/> Telecomm. / Data
<input type="checkbox"/> Architect	<input type="checkbox"/> Electrical	<input type="checkbox"/> Lift	<input type="checkbox"/> Test and Tag Services
<input type="checkbox"/> Asbestos / Haz. Materials	<input type="checkbox"/> Emergency Lighting	<input type="checkbox"/> Locksmith	<input type="checkbox"/> Tillers
<input type="checkbox"/> Battery	<input type="checkbox"/> Engineering Consultant	<input type="checkbox"/> Painting	<input type="checkbox"/> Traffic Consultant
<input type="checkbox"/> Blinds / Curtains	<input type="checkbox"/> Environmental Consultant	<input type="checkbox"/> Pest Control	<input type="checkbox"/> Water Treatment
<input type="checkbox"/> Brick / Block Laying	<input type="checkbox"/> Fencing	<input type="checkbox"/> Plumbing & Gas Fitters	<input type="checkbox"/> Waste
<input type="checkbox"/> Building Mgt Systems	<input type="checkbox"/> Fire Services	<input type="checkbox"/> Pumps	<input type="checkbox"/> Other:
<input type="checkbox"/> Carpet / Vinyl	<input type="checkbox"/> Fume Cupboards	<input type="checkbox"/> Refrigeration	_____
<input type="checkbox"/> Civil Works	<input type="checkbox"/> Furniture	<input type="checkbox"/> Roofing	
<input type="checkbox"/> Cleaning	<input type="checkbox"/> Generators	<input type="checkbox"/> Rope Access	
<input type="checkbox"/> Concreting	<input type="checkbox"/> Geotechnical Consultant	<input type="checkbox"/> Scaffolding	

Once the forms have been completed by the Contractor or their delegate and returned to Risk Department, electronically or in hard copy the applicant will on discretion of the safety Specialists be booked into and proceed with the induction.

If you have any queries regarding these requirements please do not hesitate to contact the TNPA Health and Safety Department on



OFFICE USE				
	Status	Name and Surname	Date	Comments
<input type="checkbox"/>	Approved by			
<input type="checkbox"/>	Rejected by			

INDEMNITY FORM

I (Full names of the contractor employee) _____

ID No. _____ working for _____ (name of the contractor) hereby acknowledge that I have being inducted on the _____ (dd/mm/yy) at _____ (Region and Business Name).

I, the above accept that I enter at my own risk entirely, and Transnet _____ (OD Name) shall not be liable for any loss or damage, howsoever occurring, to me or my property. I hereby waive on my behalf and on behalf of my dependants and those whom I legally represent, any claims which I or they may have arising out of injury, loss or damage occurring to myself or my property while on the premises.

I will abide by the Occupational Health and Safety act 85 of 1993 and any other procedures and the instructions given by the site management including the following:

- I will come to work physically fit and alert as I understand the hazards associated with a person under the influence of alcohol or other drugs that numbs the sense and slows reaction time.
- I will use protective clothing and equipment prescribed for the activities that I perform, in a proper manner.
- I will follow the instructions given by the site Supervisor or inform him of the reasons if it is not possible to do so.
- Before attempting something new or different I will discuss it with the site Supervisor to avoid causing incidents.



Health and Safety Specifications

April 2020

- I will maintain the tools and equipment that I use in a safe condition and report defective tools to the site Supervisor.
- I will not attempt to operate any vehicles or other machinery that I have not being trained for or authorised to operate.
- I will report any unsafe acts and unsafe conditions to the site Supervisor for correction.
- I will report any injury or incident that occur while on site and before the end of the shift.
- I will not violate any prohibitions.
- I will not intentionally put the lives of others in danger.
- I will abide with all signage's posted on site.

Signature of the contractor employee _____ Date _____

Signature of the Instructor _____ Date _____

INDUCTION CERTIFICATE



26. ANNEXURE H
Incident Flash/ Preliminary Report

Name of Contractor:											
Reference No.:		Date of Occurrence				Time of Occurrence					
Identity Number:											
		Railway				Security					
		Safety (e.g. IOB, Employee Fatality)				HAZMAT					
Has been Inducted by:											
		Health (e.g. OD)				Explosion					
Induction Date:											
		Environment				Fire					
		Asset (Specify e.g. Vehicle, equipment, infrastructure, etc)				Other (Specify e.g. Public fatality, Non-work related, etc.)					
Inductor's Contact Number:											
Initial Occurrence Severity		D	D	M	M	Y	Y	Y	Y		
(Level 1, 2, 3 or 4)											
Induction Location:											
Certificate Expiry Date:											
		D	D	M	M	Y	Y	Y	Y		
Inductee Signature:											
Inductor Signature:											



TRANSNET OCCURRENCE NOTIFICATION AND REPORTING TEMPLATE (PRELIMINARY REPORT)



THIS PRELIMINARY REPORT SHOULD BE COMPLETED WITHIN 24 HOURS TO SHERQ/SECURITY/OMPLIANCE MANAGEMENT (SHERQSC) DEPARTMENT AND TRANSNET GROUP FOR LEVEL 1 AND 2 OCCURRENCES

Operating Division (OD) / Specialist Business Unit (SBU):		Dept / Section / Work Area	
Supervisor		Manager	
Involved Employee <small>Name(s) & Surname:</small>		Employee SAP No. & ID No.:	
Occupation / Grade:		Work experience <small>(years/months)</small>	
Gender		Age	
1. Description of incident (State what happened, where, how and why and who was involved etc)			
2. Photo/s of the incident scene			
3. Immediate remedial and preventative actions taken			
4. Current Impact			



Health and Safety Specifications

April 2020

5. Potential impact			
6. Possible basic cause and Contributing Factors			
Occurrence Report submitted by:		Designation:	

DRAFT

27. ANNEXURE I

The Principal Contractor and Sub Contractors must submit proof of compliance with the construction phase Health and Safety plan where applicable.

Requirement	OHSA Requirement	Submission Date
Notification of Intention to Commence Construction / Building Work	Construction Regulation	Before commencement on site
Assignment of Responsible Person to manage Construction Work	All relevant appointments, as per OHS Act and Construction Regulations	Before commencement on site
Competence of Responsible Persons	Client Requirement & OHS Act	Together with H&S plan
Compensation of Occupational Injuries and Diseases Act (COIDA) 130 of 1993	COIDA Requirement	Together with H&S plan
Occupational Health and Safety Policy	OSHACT	Together with H&S plan
Health and Safety Organogram	Client requirements	Together with H&S plan
Initial Hazard Identification and Risk Assessment based on the Client's assessment	Construction regulation	Together with H&S plan
Health and Safety Representative	OSHACT	Submit as soon as there are more than 20 employees on site

**28. ANNEXURE J****PRINCIPAL CONTRACTOR: PRE-CONSTRUCTION HEALTH AND SAFETY APPOINTMENTS**

The Principal Contractor shall make the following appointments according to the initial risk assessment: (further appointments could become necessary as project progresses)

Appointment	OHSA Reference	Requirement
CEO Assignee	Section 16(2)	A competent person to assist with the on-site H&S overall responsibility – Contractor's Responsible Person
Construction Manager	CR 8 (1)	A competent person to supervise and be responsible of Health & Safety related issues on site. The person is appointed to assist the CEO with his/her overall duties
Assistant construction manager	CR 8 (2)	A competent person to assist with daily supervision of construction / building work. The person assists the Construction Manager.
Health and safety officer	CR 8(5)	Register with statutory body approved by Chief inspector and have the necessary competencies and resources to assist the contractor
Construction supervisor	CR 8 (7)	A competent person to supervise and be responsible of Health & Safety related issues on site. The person is



Health and Safety Specifications

April 2020

		appointed to assist the CEO with his/her overall duties
Assistance Construction supervisor	CR 8 (7)	Same duties as above
Contractor	CR 7 (1)(c)(v)	
Temporary works designer	CR 12 (1)	
Competent Person- Risk Assessment	CR 9(1)	A competent person, as defined in regulation 1, 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 (competent person)
Fall Protection Plan	CR 10 (1)(a)	Competent person
Excavation work supervisor	CR 13 (1)(a)	Competent person
Demolition work Supervisor	CR 14 (1)	Competent person
Scaffolding work supervisor	CR 16 (1)	Competent person

29. ANNEXURE K

CONTRACTOR HEALTH AND SAFETY FILE PRE CHECKLIST

Project Manager: _____



Health and Safety Specifications

April 2020

Project name:	
Client:	
Contractor Details:	

No	items	Approved	Not Approved
1	Principal Contractors Organogram		
2	Letter Of Good Standing With Compensation Fund		
3	Notification Letter Of Construction Work ~ Department Of Labour (If Applicable)		
4	Appointments		
5	Induction: Employees And Visitors: Staff Medical Certificates		
6	Principal Contractor's SHEQ Policy		
7	Health & Safety Plan, Integrated Legal Register, Client Specification.		
8	Fall Protection Plan (If Applicable)		
9	Risk Assessments: Method Statements: Safe Operating Procedures		
10	Incidents / Accidents Register And Investigation Reports		
11	Emergency Contact Telephone Numbers		
12	Business Continuity Plan Including Emergency Plan		
13	Documented Proof Of Daily Toolbox Safety Talks/ DSTI		
14	Inspections Checklist		
15	All Registers		
16	Welfare Facilities		
17	Electrical Compliance		
18	Mandatory Agreement		
19	Communication Plan		



Health and Safety Specifications

April 2020

20	Training Records and Competency Certificates		
21	General		

CONTRACTOR'S COMPLIANCE FILE REVIEW

Date	Print Full Name	Designation	Signature
Status			
Approved			
Not Approved			
Reasons for not approving			

FEL- 3 SHIP REPAIR: BASELINE RISK ASSESSMENT

**REPLACEMENT OF STURROCK DRY DOCK (SDD) INNER CAISSON GATE AT
THE PORT OF CAPE TOWN FOR A PERIOD OF 24 MONTHS**

Rev No.	Date	Revision Details
00	2018-08-06	ISSUE FOR APPROVAL

BASELINE RISK ASSESSMENT REPLACEMENT OF THE SDD INNER CAISSON GATE

Item No.	Nature of the potential Risk	Description of Risk	Mitigation Measure
1	Construction works taking place within the dry dock	Incidents and spillages cause by activities within the dry dock	<ul style="list-style-type: none"> The Contractor is to ensure that all access to and from the site is carefully monitored and controlled. The traffic management plan needs to be clearly developed. All stakeholders to be informed about the standard operating procedures and regulations of the port. The Contractor is to ensure that all stakeholders abide to these procedures and regulations when working within the boundaries of the port. Documented safe systems of work, project safety standards and safety procedures shall be developed.
2	High risk man-machine interfaces and high risk construction-operation interfaces	Temporary site closure due to incident investigations if fatalities occur	<ul style="list-style-type: none"> All incidents will be dealt with in accordance with TNPA Emergency management (EM) which details all activities and risk management measures related to, preparedness prevention and mitigation, response and recovery. A Project wide procedure for management of incidents will be developed and implemented for the execution phase of the Project.
3	Caisson fire prevention measures insufficient.	Site closure due to risk of injuries, damage to Transnet assets, as well as risk of standing time arises	<ul style="list-style-type: none"> Engineering in design to incorporate the fire prevention mechanism and fire protection design specifications. Issue of hot work permits
4	Noise and dust pollution not included in engineering design,	There is a risk of litigation on environmental issues.	<ul style="list-style-type: none"> Planning and designing for Health and Safety and also to consider environmental and community (HSEC) issues.

	affecting Health & Safety		<ul style="list-style-type: none"> All environmental issues should be included in the engineering specification when in design phase.
5	Engineering design not incorporating 'safety in design' checklist.	This could lead in incidents and fatalities	<ul style="list-style-type: none"> TNPA to develop a safety in design checklist which engineering shall incorporate in their design
6	Emergency and disaster response too lengthy or insufficient - increased damage & injuries	Response during emergencies may take too long.	<ul style="list-style-type: none"> Emergency response plans will be prepared for construction, commissioning, and operation for the Project before each activity begins. TNPA Project Team will ensure that coordinated plans are prepared by contractors and vendors to cover all activities on the project. These plans will be prepared in consultation with TNPA Project Team, contractors/vendors and local emergency services.
7	Testing of the electrical and mechanical equipment without proper procedure.	Working without isolatable equipment can cause severe or fatal injuries	<ul style="list-style-type: none"> The contractor shall ensure that the proper isolation mechanism / procedures are established following the rules "one person, one lock, one key principle. Also, the Contractor and TNPA operators need to ensure that the operating procedure manual for all the electrical equipment is available. Certificate of compliance
8	Improper operation of equipment	Injuries to personnel's, Fatalities	<ul style="list-style-type: none"> Proper handover, operational manual and training.
9	Back feeding of cables	Electrocution	<ul style="list-style-type: none"> Ensure that all ends of ring networks are isolated and earthed and lock out system is in place
10	Working in a confined space	Working in a confined space can leads to fatality due to oxygen deficiency around the area	<ul style="list-style-type: none"> The Contractor needs to obtain a written permit for work to be performed in a confined space. Also, the Contractor needs to outline the methodology of work to be performed and ensure that the correct PPE is provided. Implement confine space entry procedure. Provide ventilation where necessary
11	Transportation of the caisson to	Vehicle incidents/accidents, traffic	<ul style="list-style-type: none"> The contractor to provide traffic management plans and necessary permits required.

	site	congestion	
12	Uneven surface	Slips and trips	<ul style="list-style-type: none"> • Provide signage and work instruction
13	Extreme exposure to noise	Impairment hearing loss	<ul style="list-style-type: none"> • Provide earplugs or earmuffs
14	Faulty Equipment	Injury due to faulty equipment	<ul style="list-style-type: none"> • Inspection of equipment prior to use
15	Isolation and earthing	Electrocution of personnel	<ul style="list-style-type: none"> • Following working instruction/ manuals. • Provide PPE. • Earthing of equipment.
16	Poor house keeping	Trips and slips causing injuries	<ul style="list-style-type: none"> • Follow good house keeping
17	Flooding of the dock	Drowning, damage to equipment	<ul style="list-style-type: none"> • Make sure that early warning system are Functional.
18	Illumination in low light conditions	Poor visibility leading to injuries and damage to equipment	<ul style="list-style-type: none"> • Provide additional lighting where required
19	Working at heights	Falls, injuries and fatalities	<ul style="list-style-type: none"> • Contractor should provide fall protection plan
20	Standing under the suspended load	Employees involved or working around the lifting operation may find themselves working under the load which may results in fatalities	<ul style="list-style-type: none"> • The contractor shall ensure that the risks associated with lifting equipment have been assessed and suitable safety control measures are established either; <ul style="list-style-type: none"> ○ Under a lifting plan, taking into account the lift method, equipment, responsibilities and communications (typical for higher risk or more complex lifts involving specialised equipment) or ○ Under an approved work method, work procedure or instruction (typically for routine lifts of low or insignificant risk) ○ Other people involved in the lifting operation (e.g. riggers of the load) are competent and authorised for the lifting equipment and lift method to be used. ○ The lifting equipment is fit for the purpose in

			terms of its design, load capacity, condition and test status.
21	Poor maintenance and operation of construction equipment	This could lead to various environmental, operational and H&S Risks	<ul style="list-style-type: none"> Contractor to develop a maintenance plan according to their operational requirements
22	Extreme weather conditions may present dangerous working conditions or unfavourable construction condition.	Project may be delayed, leading to an extended project schedule and people may be injured	<ul style="list-style-type: none"> Allow for inclement weather within specified conditions of the contract
23	Heavy lifting including parts that needs to be removed and reinstallation of refurbished parts	Leading to equipment failure/ rigging failure/injury inspected and load tested.	<ul style="list-style-type: none"> Lifting and Rigging procedure to be drafted Competent persons to be utilized as riggers and crane operators. Lifting equipment inspections to be undertaken by competent persons Safe work zones to be created around lifting areas by means of barriers Guide ropes to be utilized for all lifts. Rigging study to be prepared for all lifts exceeding 3 ton , tandem or critical lifts No overhead lifting to be allowed <p>All equipment utilized to be pre inspected and load test</p>
24	Working along the quay side (2m)	Drowning and fatalities	<ul style="list-style-type: none"> TNPA to conduct site specific induction. Provide life jackets
25	Vehicle/moving plant/Traffic Management	Injuries	<ul style="list-style-type: none"> Traffic management plan to be developed. Pedestrian traffic should be separated from plant traffic through safe work zoned created with barricading. Safety signage should be placed in areas where plant will be utilized warning pedestrians about the danger. Spotters to be utilized for vehicle reverse movements
26	Hot work leading to injury , fire , damage		<ul style="list-style-type: none"> Hot work permit system to be developed All hot work to be completed making use of the permit system Competent persons to be utilized for all hot work.

			<ul style="list-style-type: none"> • Method statements to be drawn up and approved for all hot work. • Task specific risk assessment and fire plans to be drawn up for all hot work taking place.
27	Improper handing over of the Caisson Gate	Lead to personal injuries, fatalities and structural damage	<ul style="list-style-type: none"> • Proper hand over of the caisson gate with operational manual. • Training to the user of the Caisson gate • Maintenance plans developed by end user

Design for Health and Safety Management Plan

**FEL- 3 SHIP REPAIR: DESIGN FOR HEALTH AND SAFETY MANAGEMENT PLAN
REPLACEMENT OF STURROCK DRY DOCK (SDD) INNER CAISSON GATE AT
THE PORT OF CAPE TOWN FOR A PERIOD OF 24 MONTHS**

Design for Health and Safety Management Plan

Table of Contents

1.	INTRODUCTION.....	4
2.	PROJECT SCOPE & DESCRIPTION	4
3.	HEALTH AND SAFETY SCOPE & STRATEGY.....	5
4.	KEY DEFINITIONS AND ABBREVIATIONS.....	6
5.	LEADERSHIP AND COMMITMENT	6
5.1	General Requirements	7
5.2	Code of Conduct and Ethics	7
5.2.1	A Culture of Integrity	7
5.2.2	Values	7
5.2.3	Governing Principles.....	7
5.2.4	Responsibility for Reporting Breaches of Code	8
5.3	Roles and Responsibilities.....	8
5.3.1	Project Manager	8
5.3.2	Clients Agent.....	9
5.3.3	Construction Managers	11
5.3.4	Site Supervisors	12
5.3.5	Health, Safety and Environmental Manager	13
6.	ALIGNMENT.....	15
7.	HEALTH AND SAFETY IN DESIGN	15
7.1.1	Hazard Assessment during Design	16
7.1.2	Top Down Planning	16
7.2	Checklist	17
8.	LEGAL REQUIREMENTS.....	22
8.1	Legal Register	22
9.	Communication Plan	35
11.	INCIDENT MANAGEMENT	37
12.	EMERGENCY MANAGEMENT	37
12.1	Introduction	37
12.2	Objectives	37
12.3	Terms and Definitions	38



12.4	Identification of Various Emergencies	38
12.5	Emergency Planning	38
12.6	Emergency Preparedness and Response Training	39
12.7	Equipment	39
12.8	Emergency Preparedness and Response Review	40
12.9	Document Control	40

Tables:

Table 1:	Safety in Design Checklist	18
Table 2:	Legal Obligations Register	23



1. INTRODUCTION

Project Information		
Project Name:	Replacement of SDD Inner Caisson Gate	
Project Number:	00	
Client:	Ship Repair Business Unit	
Project Scope:	Health and Safety Design Plan Replacement of SDD Inner Caisson Gate	
Project Address:	Port of Cape Town	
Scope of services:	To address the H&S deliverables as listed in the project lifecycle guidelines	
Project Office Address:	Port of Cape Town	
Key Contacts		
Role	Name	Details
Principal Project Manager	Lindokuhle Mkhize	
Project Manager (PM)	Lebogang Tlhabatlhaba	
SHE Manager	Motlagomang Chobokoane	

2. PROJECT SCOPE & DESCRIPTION

Transnet National Ports Authority, custodian of the Republic’s national ports, is looking to modernize port facilities in line with Operation Phakisa objectives. Operation Phakisa was launched by the State President in July of 2014 after an assessment of how the oceans economy can contribute to the national GDP, and increase employment within the marine transport and manufacturing sector, in line with the National Development Plan.



It is in this context that the management of Port of Cape Town is looking to repair, replace and upgrade equipment and infrastructure as may be necessary to modernize the Sturrock Dry Dock, and bring it up to international standards and good practice. The dock has been in operation from the 1945. As a result, most of the equipment and infrastructure is aged and in a state of disrepair that affects the dock's operational efficiencies negatively.

In December 2016 there was an incident on Sturrock dry dock that involved the inner caisson gate. The gate was found to have accidentally dislodged from position while the dock was being flooded. This led to water rushing into the dock uncontrollably and damaging docked vessels.

In response to the incident, the management of Port of Cape Town instituted a board of enquiry (BOI) to determine the causes of the incident. The BOI report among other findings instructed that the inner caisson gate be condition assessed before being put back into operation. As such since the day of the incident, the caisson gate has not been in operation, and the dock has operated using only the sliding caisson gate. A condition assessment of the floating inner caisson gate was conducted in March 2018. The aim was to determine the condition of the caisson gate and its suitability for continued safe usage. The report has found the caisson gate to not be in safely usable conditions without major repair works.

3. HEALTH AND SAFETY SCOPE & STRATEGY

References:

Ref No.	Document No.	Document Title	Revision
[1]		Project Lifecycle Process Pre-feasibility Study Phase (FEL3) Manual	01
[2]		Transnet 08-02-08 PRM-M-0001 Project Lifecycle Process Overview Manual	01
[3]		Project Lifecycle Process Gate Review Manual	01
[4]		Owner Requirement Specification	01
[5]		TNPA Assets Disposal Policy	01

The H&S Framework is established through project lifecycle guidelines contained in the Transnet gate review manual. The H&S deliverables derived from this are:

1. **H&S Management Plan (HSMP)** – preliminary plan covering major identified hazards; identified country laws and regulations, H&S resources/organogram, and will also address:
 - a) Project Safety Leadership – Project Manager leads H&S on the project and the project team has safety as a primary cultural value.



- b) Design for Safety Plan and Procedures – design for safety criteria established.
 - c) Legal register – preliminary legal register covering major legislation applicable.
 - d) Hazard identification and risk assessment – updated risk register documenting H&S risks anticipated during construction and operation.
 - e) Emergency management – guidelines for the compilation of an Emergency Management Plan which will form part of the eventual H&S Construction Execution Plan, including incident management criteria and emergency management criteria.
2. **H&S Execution Plan** – preliminary construction H&S Execution Plan (HSEP), index only covering major hazards identified, list of standards & guidelines, based on TNPA H&S Specification. The HSEP is a separate document and not included in this HSMP.

4. KEY DEFINITIONS AND ABBREVIATIONS

All relevant definitions in relevant legislation as is applicable to this project will not be repeated in this HSMP.

Other key definitions and abbreviations used throughout this document are:

ABBREVIATIONS:

H&S:	Health and Safety
HSEP:	H&S Execution Plan
HSIP:	H&S Improvement Plan
HSLT:	H&S Leadership Team
HSMP:	H&S Management Plan
HSMS:	H&S Management System
OHS Act:	Occupational H&S Act
PPE:	Personal Protective Equipment
PTO'S & CTO's:	Planned Task Observations & Critical Task Observations
SOP:	Standard Operation Procedure
TNPA:	Transnet National Port Authority

5. LEADERSHIP AND COMMITMENT



5.1 General Requirements

H&S starts with top corporate leadership commitment that is driven down all levels of the organisation through proactive and consistent leadership.

Any person who co-ordinates, supervises or provides instruction to people or manages a process on this project is considered a leader.

All leaders demonstrate commitment and leadership through their visible actions, attitude, consistency and energy. Leaders should be held accountable for H&S performance and all team members should take responsibility for the H&S of their actions.

The line management of any contractor that will be involved during the construction phase should take full ownership of all H&S requirements

TNPA line management, senior or top management involved during the operation should take full ownership of all H&S requirements and visible coaching leadership. The role and function of the H&S department should be to monitor, train, and audit and assist management in this regard.

5.2 Code of Conduct and Ethics

The following elements should form the outline of a Code of Conduct:

5.2.1 A Culture of Integrity

5.2.2 Values

5.2.3 Governing Principles

The following are governing principles that should be addressed in the Code of Conduct: Integrity and Professionalism



- 5.2.3.1 Accuracy of Reporting
- 5.2.3.2 Health and Safety
- 5.2.3.3 Protecting the Environment
- 5.2.3.4 Collaboration with Communities
- 5.2.3.5 Personal Information and Privacy
- 5.2.3.6 Communication Systems
- 5.2.3.7 Equal Employment Opportunity
- 5.2.3.8 Professional and Technical Excellence
- 5.2.3.9 Working with Governments
- 5.2.3.10 Bribery and Corruption
- 5.2.3.11 Conflict of Interest
- 5.2.3.12 Gifts and Entertainment
- 5.2.3.13 Choice of Third Parties
- 5.2.3.14 Political Contributions and Activities
- 5.2.3.15 Restrictive Trade Practices

5.2.4 **Responsibility for Reporting Breaches of Code**

5.3 **Roles and Responsibilities**

In order to execute the FEL4 phase but especially during construction, a list of roles and responsibilities are provided that can also be adapted for the operation phase.

It is crucial that responsibilities like these are clearly defined for the relevant role players either in their H&S appointment letters or in contractual documents.

5.3.1 **Project Manager**

- He is accountable to the Steering Committee for both the corporate and operational planning;
- He shall ensure that the HSEP and Environmental / Waste Management Plan is fully implemented and shall monitor H&S and the environmental issues throughout the Project;
- He is responsible for ensuring that the HSEP is reviewed during the Project, or following any significant changes in operations;



- TNPA project manager shall establish and maintain a direct line of communication with the Contractor Construction Manager;
- He shall be familiar with all relevant H&S and Environmental legislation;
- He shall ensure that is conversant with the relevant requirements of current legislation and the HSEP / Environmental Plan and that all senior site staff (e.g. Contractor Construction Manager) are assigned appropriate duties and responsibilities to assist in its effective implementation;
- He shall ensure that suitable arrangements are put into place to control subcontractor activities for them to operate in accordance with the HSEP;
- He shall attend and participate in the HSLT;
- He shall issue the safety/environmental reports, which will be distributed at the progress meetings;
- He shall nominate competent persons to carry out the duties as required by legal appointments and other statutory appointments;
- He shall ensure that appropriate safety training process and mobilisation procedures are implemented and adhered to by Consultant employees and Contractors staff on this project;
- He shall ensure that adequate resources are made available for the planning and implementation of the HSEP;
- He shall nominate senior managers to carry out safety interactions according to his own company's KPI's, the client's safety walkabouts and to participate in investigation of serious accidents and incidents;
- He shall ensure that all certificates, records and registers are produced and made available as required under applicable legislation; and
- Shall conduct regular PTO's & CTO's according to the contractual agreements.

5.3.2 **Clients Agent**

For the Project, TNPA Project Team will appoint an Agent under the Occupational Health and Safety Act 85/1993 and Construction Regulations (2014). As such the Agent shall:

- Provide and demonstrate to the Client a suitable and sufficiently documented health and safety plan that will form the basis of a project specific health and safety specification



- Prepare and document a project specific health and safety specification for inclusion in all enquiry documents for contracts with a construction component
- Take reasonable steps as are necessary to ensure co-operation between all contractors to enable each of those contractors to comply with the provisions of the above regulations and health and safety specification
- Be responsible for the following in order to ensure compliance with the provisions of the above Act
- To provide on behalf of the Client, to any principal contractor who is making a bid or appointed to perform construction work for the Client, with the project specific health and safety specifications;
- To ensure that TNPA Project Team appoints each principal contractor in writing for the part of the project on a construction site
- To take reasonable steps to ensure that each principal contractor's health and safety plan is implemented and maintained on the construction site: Provided that the steps taken shall include periodic audits at intervals mutually agreed upon between the Client's Agent and principal contractors but at least once every month
- To stop any principal contractor or contractor from executing construction work, which is not in accordance with Client, principal contractor's and/or contractor's health and safety plan for the site or which poses a threat to the health and safety of persons
- To ensure that where changes are brought about to the design and construction, sufficient health and safety information and appropriate resources are made available to the principal contractors to execute the work safely
- To ensure that every principal contractor and contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to work commencing on site; and
- To ensure that potential principal contractors submitting tenders have made provision for the cost of health and safety measures during the construction process
- Discuss and negotiate with the principal contractors the contents of the principal contractor's health and safety plan, and shall finally approve that plan for implementation on behalf of the Client.



- Ensure that a copy of Project health and safety plan, as well as the principal contractors' health and safety plan is available on request to an employee, inspector, contractor or the Client.
- Hand over a consolidated health and safety file to the Client upon completion of the construction work and shall in addition to the documentation provided by the principal contractors include a record of all drawings designs, materials used and other similar information concerning the completed structure/(s).
- Ensure a comprehensive and updated list of all the principal contractors and contractors on site accountable to the principal contractor the agreements between the parties and the type of work being done is available.
- Not recommend for appointment by the Client a contractor to perform construction work unless TNPA Project Team is reasonably satisfied that the contractor TNPA Project Team intends to recommend, has the necessary competencies and resources to perform the construction work safely.
- Ensure all principal contractors are informed regarding any hazard as stipulated in the risk assessment before any work commences, and thereafter at such times as may be determined in the risk assessment

5.3.3 **Construction Managers**

- Accountable to the Project Is Manager and is responsible for the operational planning and also the implementation of the HSEP and Environmental Plan;
- He shall be familiar with all relevant environmental and H&S legislation;
- He shall ensure that all staff accountable to him are conversant with the relevant requirements of current legislation, the HSEP and Environmental Plan;
- He shall ensure that each Contractor has adequate resources to carry out his duties and responsibilities in accordance with the HSEP and Environmental Plan;
- He shall establish and maintain a direct line of communication with the H&S Manager and H&S Officers;
- Shall chair the H&S Committee meeting;
- Shall monitor, by regular safety interactions, the client's safety walkabouts and inspections, that the site operations are conducted in accordance with the HSEP / Environmental Plan and take urgent and appropriate action to prevent unsafe working practices or other infringements;



- He shall take part in safety audits;
- He shall appoint a H&S / Environmental Officer to provide competent safety advice and shall make that appointment in writing;
- He shall ensure that all necessary work procedures, risk assessments, method statements and work instructions are prepared and in place for safe operation of the works on site;
- He shall ensure that all Contractors' documentation includes the relevant safety / environmental information and are aligned with site safety/environmental requirements;
- He shall ensure that prospective Contractors are made aware of the requirements of the HSEP / Environmental Plan;
- He shall ensure that all contracts placed with Contractors request compliance with the HSEP / Environmental Plan and incorporate controls to guard against non-compliance.
- He shall conduct regular PTO's according to the contractual agreements.

5.3.4 Site Supervisors

- They shall be familiar with all H&S / environmental procedures relating to the work being carried out under their supervision;
- They shall ensure that their subordinates receive clear safety instructions relating to the work that they are carrying out;
- They shall ensure that the workplace is maintained in a safe and tidy condition;
- They shall assist in giving toolbox talks;
- They shall take prompt action to rectify unsafe conditions;
- They shall give full co-operation to the H&S Officers and comply with their recommendations;
- They shall ensure that all necessary safety devices are provided and used, all site personnel under their control are provided with and wear the necessary Personal Protective Equipment (PPE), and that all safety procedures appertaining to the works are complied with;
- They shall carry out regular inspections of the workplace;
- They shall be familiar with all Emergency and Incident Reporting Procedures and ensure that these are known to their subordinates, and implement those procedures as required;
- They shall promote safety awareness through leading by example;
- They shall ensure that all new employees under their management / supervision have complied with the mobilisation procedure before commencing work; and



- They shall conduct regular PTO's according to their contractual agreements.

5.3.5 Health, Safety and Environmental Manager

- A H&S Manager shall be appointed in writing, accountable to the Construction Manager for the safety assurance of the construction and the supervision and monitoring of the Health, Safety and Environmental Plan;
- He shall be empowered to stop immediately any work activity on the project where necessary and instruct employees of any Contractor to take urgent action to make safe the site and works to prevent unsafe working practices or other infringements;
- He shall report to the Construction Manager;
- He shall monitor the implementation of the HSEP;
- He shall advise and train the Project Management Team on:
 - Preventing injury to personnel and damage to plant and equipment;
 - Prevention of environmental pollution and waste management;
 - Improvement in sound working methods;
 - Legal requirements affecting safety, health, welfare, environmental and waste legalities;
 - Provision and use of protective clothing;
 - Potential hazards before work starts;
 - Methods of safe systems of work arising from new developments;
 - Changes in legislation and codes of practice;
 - Doing inspections; and
 - Completing PTO's and CTO's.
- He shall carry out, and direct the Site Foreman / Supervisors to carry out safety inspections in association with site staff to ensure that only safe methods of work are being observed.
- He shall personally carry out daily monitoring of all work areas.
- He shall implement and manage an effective deviation management process and report the findings to the Construction Manager / Contractor Site Manager.
- He shall ensure that daily safety and environmental monitoring is maintained and shall keep a daily diary / H&S Officers' logbook up to date.
- He shall participate in incident investigations as determined by the client's requirements.



- He shall supervise the recording and analysis of information on injuries, damage and loss, environmental or waste pollution, assess incident trends and review overall safety performances;
- He shall assist with training for all levels of employees on health, safety and environmental issues;
- He shall prepare H&S training programmes;
- He shall prepare and update emergency and other H&S / Environmental procedures in conjunction with the Construction Manager;
- He shall check all work procedures and method statements before they are issued to ensure that safety and environmental aspects of the operations are covered in accordance with the requirements of the H,S and E Plan;
- He shall promote awareness of injury prevention and damage control to all levels of employees;
- He shall keep up to date with the recommended codes of practice and new safety literature and also circulate information applicable to each level of employee;
- He shall keep registers of all first-aiders, competent persons, and examination reports and test certificates;
- He shall attend and participate in the H&S Committee meetings;
- He shall be responsible for reporting and recording accidents on the applicable registers;
- He shall prepare and submit to the Construction Manager a monthly report on all H&S / Environmental matters.
- He shall ensure that the HSEP and procedures are issued in accordance with document control procedures and is updated as necessary;
- He shall maintain safety information boards at suitable locations on which will be displayed the up-to-date H&S information, statistics, safety posters and other relevant information; and
- He shall issue non-conformance reports for serious irregularities observed on site.



6. ALIGNMENT

Alignment with the client should occur on several levels. The following is suggested:

- **Alignment meeting Level 1: Client / Agent**

Project Manager initiates a formal alignment meeting at the beginning of the project during which the H&S scope of work, expectations and Client requirements are verified and agreed upon. This will be a once-off meeting with Client and Agent.

- **Alignment meeting(s) Level 2: Agent, Contractors and Client**

Agent and TNPA H&S Manager and TNPA project manager convenes a re-alignment meeting at least on a monthly basis during which the H&S scope of work, expectations, Client requirements are communicated to the Contractors.

Minutes of all meetings should be kept and any clarifications will be actioned.

7. HEALTH AND SAFETY IN DESIGN

The following requirements specify general SHE design principles:

- a) Components and equipment shall, as far as practically possible, be designed to be locally fail-safe and not rely on external sources (components, equipment, personnel) to operate safely.
- b) Items shall be designed such that they are safe and without risk to all, in particular:
 - i. Ensuring that the item and its environment are safe during all design and developmental activities/phases;
 - ii. Ensuring that the item and its environment are safe during production, installation, use, handling, storage or transport;
 - iii. Ensuring that the item and its environment are safe during operations and maintenance;
 - iv. Establish what hazards are related to the use/handling of the item, what precautionary measures are to be taken related to such use/handling, and provide the necessary means to apply such cautionary measures;
 - v. Provide information, instructions, training and supervision as may be necessary to ensure the health and safety of all users while remaining environmentally sensitive and aware.



Control measures shall be implemented in terms of the following hierarchy of control:

- A -Elimination
- B -Substitution
- C -Engineering control
- D -Administrative control
- E -PPE

7.1.1 Hazard Assessment during Design

A key project design objective is to always meet the Project's Safety design criteria. Hazard analysis and risk assessment methods will be integrated into the design engineering stages. Actions will be taken so that risks of injury or damage are at an acceptable level, ALARP (as low as reasonably practicable) to meet the project objective of zero harm.

Designing for Safety compliance will be achieved through the application of the following sequential steps for each design package:

- Evaluate the hazards in the preliminary hazard register and develop design criteria.
- Describe the designing for health, safety, environment and community process in the Design Plan, including how the design process will eliminate or mitigate the risks associated with the hazards in the preliminary hazard register. This may include hazard studies such as HAZOPS, Control Systems Studies (CHAZOPS), Fire Safety Studies, Ergonomics Reviews and Construction Safety Studies (HAZCON).
- Update hazard identification and evaluation, which includes a detailed assessment of any additional hazards that have been identified during the detailed design phase for each design package. Any new hazards will be added to the Project's safety risk register.
- On completion of the detailed design, undertake a formal design SAFETY verification process to ensure that all hazards identified during the course of the design have been eliminated or the associated risk mitigated to ALARP
- Contractors and vendors with design responsibilities shall be required to incorporate an appropriate and agreed level of hazard and risk management during the engineering design phase, which will incorporate the principles of the sequential steps listed above

7.1.2 Top Down Planning

The project will adopt Top Down Planning, where in the early stages of planning for work, the job process and scope will be defined in broad terms, the five-fold hazard and risk management process will be applied. The five-fold process will continue to be applied as the project is defined in more detail. This is illustrated in the following table.



Project Definition	Concept hazard list and risk assessment
Engineering	Planning and designing for Health and Safety and also to consider environmental and community (HSEC) issues. Facility reviews Hazard studies where applicable Hazard register HAZOPs
Procurement / Tendering	Specific hazards identified in tender documents and on-site inspections. Special Conditions (of contract) for Safety and Health, and Quality included in tender documents Work method statements Draft contract -specific HSEC Management Plans
Construction	Construction Safety Study Contract specific SAFETY plans Preliminary Hazard Analysis Workshops Site wide SAFETY standards for Designated Hazardous Activities Detailed Work Method Statements Job Hazard Analysis Top Five Hazard Elimination Programme Safe Behaviour Observations Pre-start HSEC meetings
Pre-Commissioning and Commissioning	Specific pre-commissioning plans Pre-commissioning risk assessment Commissioning Safety Study Specific Commissioning Plans Contract specific Safety and Health Plans Preliminary Hazard Analysis Workshops Top 5 Hazard Elimination Program Safety Task and Behaviour Observations Pre-Start Safety and Health Meetings

7.2 Checklist

The following list may be used to assist in identifying hazards and controlling risks associated with the design of a structure throughout its lifecycle. This to be streamlined during the following design phases.



Table 1: Safety in Design Checklist

Safety in design checklist	Control	Design	Construction	Operation
The following list may be used to assist in identifying hazards and controlling risks associated with the design of a structure throughout its lifecycle .				
Electrical safety				
• Earthing of electrical installations	C/D	√	√	√
• Location of power cables	C/D/E	√	√	√
• Protection of leads/cables	C/D	√	√	√
• Number and location of power points	C/D	√	√	√
Fire and emergencies				
• Fire risks	C/D/E	√	√	√
• Fire detection and fire fighting	C/D/E	√	√	√
• Emergency routes and exits	C/D	√	√	√
• Access for and structural capacity to carry firefighting equipment	C/D	√	√	√
• Other emergency facilities	N/a	N/a	N/a	N/a
Movement of people and materials				
• Traffic management	B/C/D	√	√	√
• Safe crossings	B/C/D	√	√	√
• Site access	C/D	√	√	√
Occupational Hygiene				
ventilation requirements for the work to be performed on the caisson	C/D/E	√	√	√
• High temperature during hot works	C/D/E	√	√	√
• Lighting including that of plant rooms	C/D	√	√	√
• Acoustic properties and noise control, for example, noise isolation, insulation and absorption	B/C/D/E	√	√	√
• Seating	N/a	N/a	N/a	N/a
• Floor surfaces to prevent slips and trips	C/D/E	√	√	√
• Space for operators and maintenance staff	C	√	√	√
Plant				



Safety in design checklist	Control	Design	Construction	Operation
• Crane locations, loading and unloading	N/a	N/a	N/a	N/a
• Mobile loads on slabs	N/a	N/a	N/a	N/a
• Plant and machinery installed on the structure	B/C/D	√	√	√
• Materials handling plant and equipment	N/a	N/a	N/a	N/a
• Maintenance access to plant and equipment	C/D/E	√	√	√
• The guarding of plant and machinery	C/D	√	√	√
• Rigging requirements	C/D	√	√	√
Amenities and facilities				
• Access to various amenities and facilities such as storage, first aid rooms/sick rooms, rest rooms, meal and accommodation areas and drinking water	D	N/a	√	√
Earthworks				
• Excavations (for example, risks from earth collapsing or engulfment)	N/a	N/a	N/a	N/a
• Location of underground services	N/a	N/a	N/a	N/a
Structural safety				
• Erection of steelwork or concrete frameworks	C/D/E	√	√	√
• Load bearing requirements	C/D	√	√	√
• Stability and integrity of the structure	C/D	√	√	√
Flooding				
• Excavations	N/a	N/a	N/a	N/a
• Early warning	C/D/E	√	√	√
Manual tasks				
• Methods of material handling	C/D/E	√	√	√
• Accessibility of material handling	C/D/E	√	√	√
• Storage facilities	D	N/a	√	√
• Workplace space and layout to prevent musculoskeletal disorders, including facilitating use of mechanical aids	C/D	√	√	√
• Assembly and disassembly of pre-fabricated fixtures and fittings	C/D	√	√	√
Hazardous Chemical Substances				



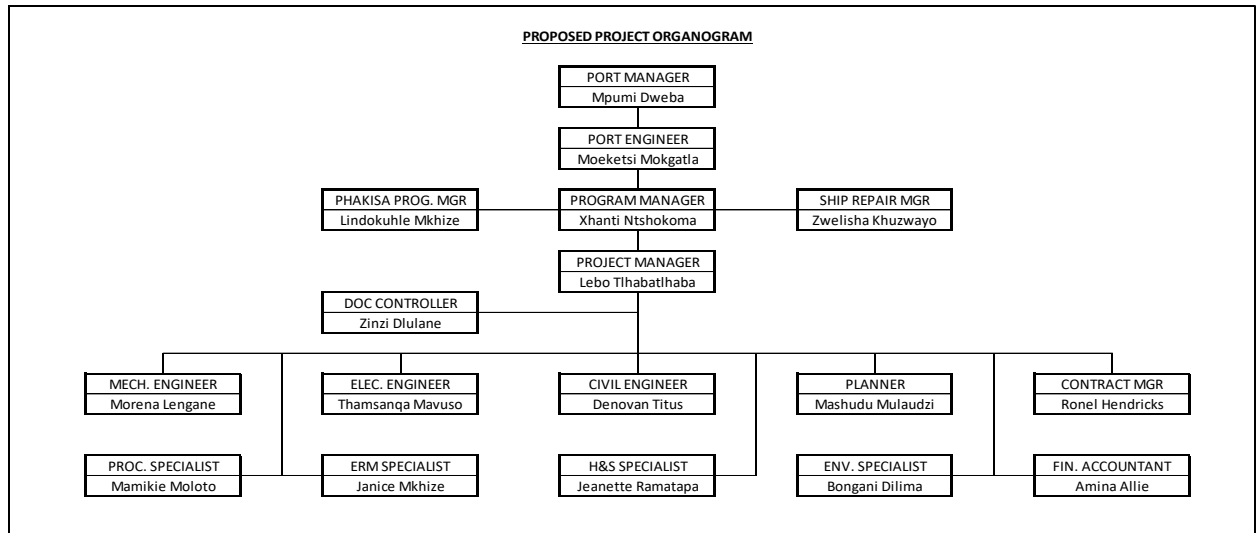
Safety in design checklist	Control	Design	Construction	Operation
• Exposure to hazardous substances and materials including insulation and decorative materials	B/C/D/E	√	√	√
• Exposure to volatile organic compounds and off gassing through the use of composite wood products or paints	B/C/D/E	√	√	√
• Exposure to irritant dust and fumes	B/D/E	√	√	√
• Storage and use of hazardous chemicals, including cleaning products	N/a	N/a	N/a	N/a
Fall prevention				
• Guard rails	C/D	√	√	√
• Window heights and cleaning	N/a	N/a	N/a	N/a
• Anchorage points for building maintenance and cleaning	N/a	N/a	N/a	N/a
• Access to working spaces for construction, cleaning, maintenance and repairs	C/D	√	√	√
• Scaffolding	C	N/A	√	√
• Temporary work platforms (i.e. gangways)	C/D	√	√	√
• Deck characteristics such as slip resistance and pitch	C/D	√	√	N/A
Specific risks				
• Exposure to radiation, for example, electromagnetic radiation	N/a	N/a	N/a	N/a
• Exposure to biological hazards	D	N/a	N/a	√
• Fatigue	B/D	N/a	√	√
• Working alone	D	N/a	√	√
• Use of explosives	N/a	N/a	N/a	N/a
• Bulk oil pipeline	N/a	N/a	N/a	N/a
Confined spaces				
• Illumination	C/D	√	√	√
• Ventilation	C/D	√	√	√
• Alarm / warning systems	C/D	√	√	√
Over and under water activities				
• Over and under water work, including diving and work in caissons with compressed air supply	C/D/E	√	√	√
Sequence				



Safety in design checklist	Control	Design	Construction	Operation
• Staging of work to facilitate provision of walkways, exits	D	N/a	√	√
• Staging of work to facilitate managing of staff around high risk activities	D	N/a	√	√
Environmental exposure				
• Impact of adverse weather conditions	C/D	√	√	√
• Exposure to noise from external plant or from surrounding area	D/E	N/a	√	√
Infrastructure design				
• Signaling	N/a	N/a	N/a	N/a
• Tie in of new infrastructure	C/D	√	√	√
• Safety at interfaces	C/D	√	√	√
• Compliance to OHSACT	C/D	√	√	√



8. Project Organogram



9. LEGAL REQUIREMENTS

9.1 Legal Register

This legal register identifies key external standards / legislation against which the project Health and Safety Management performance should be evaluated.

The maintenance of this register will allow Transnet and its contractors to focus their H&S Management systems on appropriate and relevant issues, and allow for adequate resources.

The upkeep of this register also provides evidence that Transnet is committed in the provision and maintenance of health and safety management systems on its projects.

Design for Health and Safety Management Plan

9.2 Legal Obligations Register

Table 2: Legal Obligations Register

Item	Applicable legislation	General compliance requirements	Requirements in relation to the project	Risk if not compliant	Mitigation measures	Mitigation catered for?	Cost Impact	Schedule Impact
1	Health and Safety							
1.1	Occupational Health and Safety Act (No. 85 of 1993)	Transnet to comply with the relevant processes as prescribed by the provisions of the Act and put safety policies in place, in consultation with the labour stakeholders in terms of the Act and Regulations published in terms of the Act.	All aspects of this Act and relevant regulations apply to this Project for FEL-4 Works.	High	Ensure full compliance to the Act by Transnet and it's appointed Contractors working on this Project. Adherence is achieved through Transnet policies and procedures, which includes for suitable Health and Safety construction specification, monitoring and audits.	Yes	As per the risk register – Cost impact on will be when the Construction permit is not received on time. (New CR2014)	Start and the project completion date – depending on the approval of the Construction work permit application. (New CR2014)

Design for Health and Safety Management Plan

Item	Applicable legislation	General compliance requirements	Requirements in relation to the project	Risk if not compliant	Mitigation measures	Mitigation catered for?	Cost Impact	Schedule Impact
1.3	National Road Traffic Act (No. 93 of 1996)	The registration and licensing system of motor vehicles for each province shall be as prescribed. No person shall, subject to this Act, operate on a public road any motor vehicle which is not registered and licensed by virtue of this Chapter; Registration of manufacturers, builders and importers; Every manufacturer, builder or importer shall apply in the prescribed manner to the MEC concerned for registration as a manufacturer, builder or importer.	Section 4 (Registration and licensing of motor vehicles).	Low	Transnet to comply with the relevant processes as prescribed by the provisions of this Act and Regulations published in terms of the Act. Compliance inside the premises of the Port is catered for within the Health and Safety construction specification.	Yes	None	None

Design for Health and Safety Management Plan

Item	Applicable legislation	General compliance requirements	Requirements in relation to the project	Risk if not compliant	Mitigation measures	Mitigation catered for?	Cost Impact	Schedule Impact
	SAMSA	Transnet to comply with the relevant processes as prescribed by the provisions of the Act and put safety policies in place, in consultation with the labour stakeholders in terms of the Act and Regulations published in terms of the Act.	All aspects of this Act and relevant regulations apply to this Project for FEL-4 Works.	High	Ensure full compliance to the Act by Transnet and it's appointed Contractors working on this Project. Adherence is achieved through Transnet policies and procedures, which includes for suitable Health and Safety construction specification, monitoring and audits.	Yes	As per the ERM risk register	From the Start of the project to the Execution
1.4	ISPS (The International Ship and Port facility Security)	The ISPS code for safety of ships, ports, seafarers and government agencies.	Port Facility Security Plan (PFSP), plans and action to be taken at different security levels. Roles and	Low	Security requirements included in the construction security specification. Contractor to provide proof of compliance	Yes	Standard practice therefore no additional impact.	Standard practice therefore no additional

Design for Health and Safety Management Plan

Item	Applicable legislation	General compliance requirements	Requirements in relation to the project	Risk if not compliant	Mitigation measures	Mitigation catered for?	Cost Impact	Schedule Impact
			responsibilities are included in PFSP. Action to be taken at the time of any security breach is described in PFSP		prior to commencement of work on site.			impact
1.5	Control of Access to Public Premises and Vehicles Act No.53 of 1985	Section 2 (Access to public premises and vehicles)	Notwithstanding any rights or obligations to the contrary and irrespective of how those rights or obligations arose or were granted or imposed, the owner of any public premises or any public vehicle may:- • take such steps as he may consider necessary for the safeguarding of; those premises or that vehicle and the contents thereof, as	Low	Ensure that measures are put in place to comply	Yes	Standard practice therefore no additional impact.	Standard practice therefore no additional impact.

Design for Health and Safety Management Plan

Item	Applicable legislation	General compliance requirements	Requirements in relation to the project	Risk if not compliant	Mitigation measures	Mitigation catered for?	Cost Impact	Schedule Impact
			well as for the protection of the people therein or thereon.					
1.6	National Ports Act of 2005	Port Access Control and use of the Port	National Ports Act No.12 of 2005	High	Ensure compliance to the Act Transnet and its appointed Contractors working on this Project. Adherence is achieved through Transnet policies and procedures, which includes for suitable Health and Safety construction specification, monitoring and audits	Yes	Standard practice therefore no additional impact.	Standard practice therefore no additional impact.
2	Procurement							

Design for Health and Safety Management Plan

Item	Applicable legislation	General compliance requirements	Requirements in relation to the project	Risk if not compliant	Mitigation measures	Mitigation catered for?	Cost Impact	Schedule Impact
2.1	Constitution of the Republic of South Africa Act (No. 108 of 1996)	Fair; equitable; transparent; competitive; and cost effective.	Section 217 (Contracts for goods and services; and Procurement policy).	Medium	All procurement processes must adhere to these requirements as required under the Constitution.	Yes	None Standard practice therefore no additional impact.	None Standard practice therefore no additional impact.
2.2	Preferential Procurement Policy Framework Act (No. 5 of 2000)	This Act applies to give effect to section 217 (3) of the Constitution by providing a framework for the implementation of the procurement policy contemplated in section 217 (2) of the Constitution; and to provide for matters connected therewith.	Section 2 (Framework for implementation of preferential procurement policy).	High	Procurement Policies are in adherence to the Act.	Yes	None Standard practice therefore no additional impact.	None Standard practice therefore no additional impact.

Design for Health and Safety Management Plan

Item	Applicable legislation	General compliance requirements	Requirements in relation to the project	Risk if not compliant	Mitigation measures	Mitigation catered for?	Cost Impact	Schedule Impact
2.3	Public Finance Management Act (No. 1 of 1999)	The PFMA sets out processes and procedures to be followed by entities affected and regulated by it. As a Schedule 1 Major Public Entity, Transnet must ensure that it maintains effective, efficient and transparent systems of financial and risk management and internal control.	Section 38 (General responsibilities).	High	Relevant approvals to be procured and compliance to relevant prescripts.	Yes	None Standard practice therefore no additional impact.	None Standard practice therefore no additional impact.

Design for Health and Safety Management Plan

Item	Applicable legislation	General compliance requirements	Requirements in relation to the project	Risk if not compliant	Mitigation measures	Mitigation catered for?	Cost Impact	Schedule Impact
2.4	Construction Industry Development Board Act (No. 38 of 2000)	To provide strategic leadership, the Board must promote and implement policies. Programmed and projects aimed at, amongst others— <ul style="list-style-type: none"> · support emerging enterprises sector; · work process transformation; · improved labour relations; and best practice processes. 	Section 5 (Powers, duties functions of the Board).	High	Adhere to applicable prescripts thereunder. CIDB Standard Conditions of Tender forms part of the standard Transnet tender documents.	Yes	None Standard practice therefore no additional impact.	None Standard practice therefore no additional impact.

Design for Health and Safety Management Plan

Item	Applicable legislation	General compliance requirements	Requirements in relation to the project	Risk if not compliant	Mitigation measures	Mitigation catered for?	Cost Impact	Schedule Impact
3	Quality							
3.1	Project and Construction Management Professions Act (No. 48 of 2000)	The categories in which a person may register in the project and construction management professions are professional, which is divided into— · Professional Construction Manager; or · Professional Construction	Section 18 (categorization of registration).	High	Adhere to applicable prescripts thereunder.	Yes	System in use. No impact	System in use. No impact

Design for Health and Safety Management Plan

Item	Applicable legislation	General compliance requirements	Requirements in relation to the project	Risk if not compliant	Mitigation measures	Mitigation catered for?	Cost Impact	Schedule Impact
		Project Manager; or Candidate, which is divided into— · Candidate Construction Manager; · Candidate Construction Project Manager. A person may not practice unless he or she is registered in a category.						
3.2	National Regulator for Compulsory Specification Act (No. 5 of 2008)	Effect of declaration as compulsory specification; Non-conformance to compulsory specification; Appointment of market surveillance inspectors; Powers of entry; Identification prior to entry	Sections 13-20 (Compulsory specifications).	Medium	Planning, monitoring mechanisms must be put in place.	Yes	System in use. No impact	System in use. No impact

Design for Health and Safety Management Plan

Item	Applicable legislation	General compliance requirements	Requirements in relation to the project	Risk if not compliant	Mitigation measures	Mitigation catered for?	Cost Impact	Schedule Impact
		and cooperation with inspectors; and Powers to question and do market surveillance inspections.						
3.3	Engineering Profession Act (No. 46 of 2000)	Ensure that the engineers to be employed for the project are registered with the Engineering Council of South Africa	Section 19 (Registration).	Medium	Planning, monitoring mechanisms must be put in place	Yes	System in use. No impact	System in use. No impact
3.4	Quantity Surveying Profession Act (No. 49 of 2000)	Ensure that the quantity surveyor employed for the project must be registered with the South African Council for Quantity Surveying Profession.	Section 19 (Registration).	Medium	Mechanisms to monitor compliance with requirements must be put in place.	Yes	System in use. No impact	System in use. No impact

Design for Health and Safety Management Plan

Item	Applicable legislation	General compliance requirements	Requirements in relation to the project	Risk if not compliant	Mitigation measures	Mitigation catered for?	Cost Impact	Schedule Impact
3.5	Standards Act (No. 8 of 2008)	The SABS must, by notice in the Gazette: - · set and issue as a South African National Standard, a standard developed; · issue amendments to such a standard; and · withdraw any South African National Standard issued.	Section 24 (Issuing of South African National Standards)	High	Monitoring mechanism to track changes to standards.	Yes	System in use. No impact	System in use. No impact

Design for Health and Safety Management Plan

10. Communication Plan

Communication Type	Objectives of Communication	Method	Frequency	Audience	Owner	Deliverables	Format
Kick off Meeting	To introduce the project team and the project. Review project objectives and management approach	Formal Meeting	Beginning of the project	Project team	Project Manager	Agenda and Meeting minutes	Soft copy Achievable on document control
Project team Meeting	Review status of the project with the team	Formal Meeting	Monthly	Project team	Project Manager	Agenda Meeting Minutes Project Schedule	Soft copy Achievable on document control
Monthly Project Meeting	Report on the status project to project management	Formal Meeting	Monthly	Project team	Project Manager	Slide updates and project schedule Agenda and Meeting minutes	Soft copy Achievable on document control
Technical Design Meeting	Discuss and develop technical design solutions for the project	Formal Meeting	Weekly	Project team	Project Manager	Agenda and Meeting minutes	Soft copy Achievable on document control
Project Progress Meeting	Report the status of the project including activities; progress; costs and other related issues	Formal Meeting	Weekly	Project team	Project Manager	Project status report and project scheduling	Soft copy Achievable on document control
H&S Alignment meeting(level1)	To ensure alignment of all personnel working on	Formal Meeting	Beginning of the project	Project manager,	Project Manager	Agenda and Meeting minutes	Soft copy Achievable on document control

Design for Health and Safety Management Plan

	the project to the safe of work, H&S roles and responsibilities as well as re-alignment if changes dictates this.			TNPA Manager			
--	---	--	--	-----------------	--	--	--

Design for Health and Safety Management Plan

11. INCIDENT MANAGEMENT

Reference:

- Occurrence Report & Investigate

Incident management is carried out strictly in accordance with TNPA's incidents procedures. Incidents are to be reported immediately to any H&S Representative, H&S Officer, and Supervisor, Manager or client contact on site.

All near misses, occupational health & primary health related conditions, equipment damages as well as potential hazards with stored energy should also be regarded as incidents on this project and need to be reported immediately.

Trends with regard to the type of potential injury or disease, causes, risk type and severity should be tracked and analysis as a pro-active measure.

12. EMERGENCY MANAGEMENT

12.1 Introduction

The introduction part of the emergency procedures should clearly list the purpose and intent of the procedure as well as the scope thereof. It should be project / site specific.

12.2 Objectives

Emergency management (EM) refers to the management of emergencies concerning all hazards, including all activities and risk management measures related to prevention and mitigation, preparedness, response and recovery.

For the purpose of this HSMP, an emergency refers to "an immediate event, including an Information Technology incident that requires prompt coordination of actions concerning persons or property to protect the health, safety or welfare of people, or to limit damage to property or the environment."

Design for Health and Safety Management Plan

12.3 Terms and Definitions

Important terms, references and definition to be adequately defined for the benefit of Transnet and Contractors when an Emergency Plan is drafted.

12.4 Identification of Various Emergencies

Contents should consider:

- The nature and scale of potential emergencies individually identified.
- The activities undertaken at the location.
- Plant, equipment and material types and their use at the location, operation or project.
- Implications for people performing Transnet work.
- Implications for visitors and the wider community.
- The impact on neighbouring businesses, properties, communities.
- The impact on Transnet from external parties and neighbours who may experience an emergency at their location, operation or project.
- Environmental and weather impact.

12.5 Emergency Planning

Emergency preparedness and response plans must:

- Detail the nature and scale of potential emergencies.
- Detail the contingencies in place to manage each individual emergency.
- Address the specific needs of the location, operation or project.
- Take into consideration factors outside the location, operation or project.
- Address the needs of the people at the location, operation or project including language and literacy and mobility impairment.
- Detail the staff appointed responsibility for managing emergency situations.
- Detail the training required for all appointed personnel.
- Meet any local H&S legislative requirements.
- Detail the actions people, including wardens and staff, must take in the event of an emergency.

Design for Health and Safety Management Plan

- Detail internal communication arrangements between wardens and the responsibilities and method for communication with external bodies.
- Specify who is authorised to communicate with the media.
- Detail any information that is to be provided to emergency services related to onsite hazards, risks, materials and substances.
- Detail the emergency equipment and other resources available for managing emergencies.
- Be reviewed annually to verify they are current and reflect the needs of the location, operation or project.

12.6 Emergency Preparedness and Response Training

Transnet management should demonstrate an adequate number of people are trained and competent to meet emergency preparedness and response and first aid requirements as per local H&S legislation and compliance code requirements. In addition Transnet can require all contractors to have additional resources over and above those that Transnet might provide. This need to be clearly identified in tender documentation.

Emergency preparedness and response arrangements should be tested and assessed at least annually to verify effectiveness and verify that people understand the emergency preparedness and response procedures. On a long term construction project Transnet might require this verification to take place more frequently due to the changing nature of the construction site.

Staff, contractors and visitors will receive emergency preparedness and response information through induction or when signing in to the location.

Emergency preparedness and response training should be provided by a competent and recognised training provider and refreshed within a timeframe determined by the local H&S manager via a risk assessment.

12.7 Equipment

Emergency preparedness and response equipment, both fixed and portable, to be identified and placed on an inventory list. Service and maintenance intervals to be prescribed, as well as competency required for each. External service should providers to be identified to provide and maintain all equipment.

Training requirements to be identified for the use of all equipment.

Design for Health and Safety Management Plan

12.8 Emergency Preparedness and Response Review

Emergency preparedness and response arrangements should be reviewed at regular intervals and improvements will be communicated to staff.

Emergency preparedness and response arrangements should be reviewed following practice drills and emergency incidents / evacuations.

Post-evacuation debriefs should be completed utilising and Emergency Evacuation Trial Checklist or similar.

Corrective actions should be implemented and formally documented on the location, operation or project Emergency Evacuation Trial Checklist and communicated to ECO members.

12.9 Document Control

H&S documentation and emergency preparedness and response records critical for control and distribution should be identified.

H&S documentation and emergency preparedness and response records will be managed in accordance with Transnet document control and record management procedures.

These documents and records should be saved in a suitable location.

Hard copies of these documents and records should be scanned and saved into the Transnet document control system.

Record retention periods should be determined by management with respect to any statutory requirements defined in local H&S or national legislation and according to Transnet's document control procedures.

**SAFETY, HEALTH & ENVIRONMENT (SHE)
SPECIFICATION FOR
SDD INNER CAISSON GATE**

Date of issue:

06 August 2018

Table of Contents

1. INTRODUCTION AND BACKGROUND	6
1.1. Background to the Health and Safety Specification.....	6
1.2. Purpose of the Health and Safety Specification.....	6
2. Scope.....	6
3. Interpretations and Responsibilities.....	7
3.1. Application	7
3.2. Definitions	7
3.3. Responsibilities.....	7
3.3.1. TNPA Department shall; SHEQ	7
3.3.2. The TNPA Project or Engineering Manager shall:	8
3.3.3. Client/Contractor shall;.....	9
3.3.4. Other Joint Responsibilities:	10
3.3.5. Other Requirements	11
4. Minimum Administrative Requirements	11
4.1. Application for a work Permit (CR 3).....	12
4.1.1 Notification of Construction work (CR4)	13
4.1.2 Permit to work	14
4.2. OHS Act Legal Appointments.....	14
4.3. Competency for Contractor’s Appointed Competent Persons	15
4.4. Compensation of Occupational Injuries and Diseases Act 130 of 1993(COIDA)	15
4.5. Occupational Health and Safety Policy	15
4.6. Health and Safety Organogram	16
4.7. Preliminary Hazard Identification and Risk Assessment and Progress Hazard	16
Identification and Risk Assessment	16
4.8. Health and Safety Representative(s).....	17
4.9. Health and Safety Committees	17
4.10. Health and Safety Training.....	17
4.10.1. Induction.....	17

4.10.2. Awareness	17
4.10.3. Competency.....	18
4.10.4. Rules of conduct.....	18
4.11. General Record Keeping.....	19
4.11.1. Inspection of equipment and tools.....	19
4.12. Health & Safety Audits, Monitoring and reporting.....	20
4.13. Emergency Procedures.....	20
4.14. First Aid Boxes and First Aid Equipment	21
4.15. Accident / Incident Reporting and Investigation	21
4.16. Hazards and Potential Situations.....	22
4.17. Personal Protective Equipment (PPE) and Clothing.....	22
4.18. Occupational Health and Safety Signage.....	23
4.19. Permits.....	23
4.20. Contractors and their Sub-contractors.....	24
4.21. Incentives & Penalties.....	24
5. Physical Requirements.....	24
5.1. Demolition Work.....	24
5.2. Excavations, Shoring, De watering or Drainage	24
5.3. Edge Protection and Penetrations.....	25
5.4. Explosives and Blasting	25
5.5. Piling	26
5.6. Stacking of Materials.....	26
5.7. Speed Restrictions and Protection	26
5.8. Hazardous Chemical Substances (HCS).....	26
5.8.1 Handling and storage of HCS	27
5.8.2 Labelling of Containers.....	27
5.9. Asbestos.....	28
6. Plant and Machinery	28
6.1. Construction Plant.....	28
6.2. Vessels under Pressure (VuP) and Gas Bottles.....	29

6.3. Fire Precautions on construction sites (CR29)	29
6.3.1 Fire Extinguishers and Fire Fighting Equipment	31
6.4. Hired Plant and Machinery	31
6.4.1 Equipment and machinery	32
6.5. Scaffolding / Working at Heights	32
6.6. Temporary work	33
6.7. Lifting Machines and Tackle	33
6.8. Ladders and Ladder Work	34
6.9. General Machinery	34
6.10. Electrical Installation and Machinery (CR 24)	34
6.10.1 Portable Electrical Tools and Explosive Actuated Fastening Devices	35
6.10.2 High Voltage Electrical Equipment	36
6.11. Public and Site Visitor Health and Safety	36
6.12. Night Work	36
6.13 Transport of workers	36
7. Occupational Health and Hygiene	37
7.1. Occupational Hygiene	37
7.2 Occupational Health	37
7.2.1 Fitness for Duty	37
7.3 Health Assessments and Health Monitoring	37
7.3. Welfare Facilities	38
7.4. Alcohol and other Drugs	38
7.5. Periodic Medical	39
8. Section 37 Agreements	39
9. SHE Inspections	40
10. SHE Communication & Awareness	40
11. Incident and Accident Reporting/ Investigation	40
12. Insurance	41
13. Security	41
14. Environmental Requirements	42
14.1. Waste Management	42

14.2. Dust / Smoke Control.....	43
14.3. Noise Control.....	44
14.4. Transportation.....	44
15. General Site Procedure.....	45
15.1 Site establishment.....	45
15.2. Site Camp.....	45
15.3. Demarcation of the site	45
15.4. Handling of waste in site camp.....	46
15.5. Servicing / Refuelling of Construction Equipment.....	47
15.6. Fuels and Chemicals	47
15.7. Tanker Terminal	48
16. Site Rehabilitation.....	49
17. Management and Monitoring.....	49
18. General Inspection Monitoring and Reporting.....	49
ANNEXURE A	52
ANNEXURE B	53
ANNEXURE D	54
ANNEXURE E.....	56
ANNEXURE G	61
SHE DEPARTMENT CONTACTS	64
APPOINTMENT AS AN AGENT IN TERMS OF CONSTRUCTION REGULATION 5(5) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT (85 OF 1993) AS AMENDED.....	66
APPOINTMENT AS A TEMPORARY WORK DESIGNER IN TERMS OF CONSTRUCTION REGULATION 12(1) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT (85 OF 1993) AS AMENDED	67
APPOINTMENT AS A CONSTRUCTION MANAGER IN TERMS OF CONSTRUCTION REGULATION 8(1) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, (85 OF 1993) AS AMENDED	68

1. INTRODUCTION AND BACKGROUND

1.1. Background to the Health and Safety Specification

- The Construction Regulations 2014 place the onus on the Client to prepare a pre-construction health & safety specification, highlighting all risks before and during construction.

1.2. Purpose of the Health and Safety Specification

- The purpose of this specification is to assist in achieving compliance with the Occupational Health & Safety Act 85/1993 and with Construction Regulations 2014 in order to reduce incidents and injuries.
- The application of this Health and Safety specification shall
 - Ensure that health and safety requirements are incorporated into the contract, conditions of tender and pricing documents.
 - Establish a systematic approach in evaluating the bidding contractors, and
 - Act as the basis for the drafting of the construction phase health & safety plan and ensure that the contractor's performance is adequately monitored and managed for the duration of the contract.

These specifications in no way release Contractors from compliance with the relevant Legal requirements.

2. Scope

- This Specification applies to all principal contractors, contractors and sub-contractors contracted directly or indirectly to do work on behalf of TNPA at the following stages of the projects; Pre tender stage; Contract award stage; Project execution and Project closes out and hand over.

3. Interpretations and Responsibilities

3.1. Application

- This specification is a compliance document drawn up in terms of South African legislation and is therefore binding. It must be read in conjunction with relevant legislation as noted previously.

3.2. Definitions

- The definitions as listed in the Occupational Health & Safety Act 85/1993 and Construction Regulations 2014 shall apply.

3.3. Responsibilities

3.3.1. TNPA Department shall; SHEQ

- Ensure that the Transnet SHEQ Risk Management Policy Statement and Port of Cape Town, SHE Management Statement of Commitment is made available to all contractors performing work for TNPA in the Port.
- To ensure contractors submit the necessary documents to ensure compliance with the Occupational Health & Safety Act and other requirements.
- To provide an Induction regarding the Safety, Health, Environmental & Security rules of the Port of Cape Town.
- This induction will include but not limited to Port Rules, road traffic rules, security, fire protection, evacuation procedures, housekeeping, reporting of incidents and environmental requirements
- The contractor may opt to conduct his/her own induction upon approval from TNPA. The facilitator will need to attend the port induction to become a trainer.
- To ensure that approved Contractor Train-the-Trainer is issued with a letter of approval from TNPA.

- Ensure that TNPA SHE Induction requirements are incorporated onto the Contractor SHE induction.
- Ensure that approved Contractor Train-the-Trainer is audited for compliance purposes at least once during the duration of the contract or when required.
- Ensure the environment is not harmful to health or the well-being of people as well as promotion of environmental protection and conservation.
- Provide a safe and healthy work environment to employees, stakeholders, client and agent
- Conduct site inspections and audits to verify whether the project, contractor(s) are complying with TNPA safety rules and specifications.
- Communicate all the Port risks & hazards to the Contractor employees.
- To ensure that no access will be given to the Contractor who fails to comply with TNPA minimum SHE requirements.

3.3.2. The TNPA Project or Engineering Manager shall:

- Ensure statutory notifications are made to the appropriate government authorities by the Contractor.
- Ensure appointed designer comply with their responsibility to eliminate, mitigate and reduce risks during demolition, excavation, construction, commissioning and maintenance has made available all relevant information about the design of the relevant structure that may affect the pricing of the construction work.
- Ensure co-operation between the designers to identify anticipated dangers, hazards relating to the construction work are communicated in order to eliminate and mitigate risks. If designs are being altered, necessary relevant information should be available and shared on the safe execution of the work.
- Ensure that a SHE file is available for each Contractor and is handed over the SHEQ department for record purposes after the completion of the project.

- Ensure inspections are carried on the structure upon completion in order to render it safe for continued use and legislative inspections are carried at stipulated intervals that is once every six month for the first two years and thereafter yearly.
- All necessary records, surveys, reports are stored and made available to the inspector upon request.
- Ensure the project does not commence prior the approval of the submitted SHE plan by the SHEQ department.

3.3.3. Client/Contractor shall;

- Ensure that all activities are in-line with the Transnet SHEQ Risk Management Policy Statement and Port of Cape Town, SHE Statement of Commitment.
- Communicate the Policies to his/her employees and sub-contractors
- Conduct risk assessment before the commencement of the actual work in terms of the contract. Duly completed risk assessment must be signed by the relevant appointed Contractor representative(s).
- Ensure that all employees, contractors and visitors are provided SHE induction prior accessing the site.
- Communicate all identified risk and control measures to their employees.
- The Contractor/client shall report all the reportable incidents/accidents according to:
 - the OHS Act No. 85 of 1993 to the Department of Labour and/or
 - Merchant Shipping Act to SAMSA and/or
 - National Environmental Management Act, to DEA as stipulated within the respective Act(s).
- Develop safe work procedures for their employees specific to the nature of the work they contracted to undertake.
- Monitor and review a plan for risk and hazard identification.

- Ensure that the copy of risk assessment is always available on site on the file.
- Ensure that a Certificate of Good Standing is issued by the Workman's Compensation Commissioner.
- Appoint all Competent Persons in writing.
- Ensure that all employees under his control are medically declared fit to work, in particular for work being done in elevated positions, confined spaces etc.
- Make provision for health & safety budgets in its tender price as required by law.
- Provide specification to the contractor on measures to prevent exposures, injuries and harm to the environment.
- Carry out regular inspections to assess if they comply with SHE specification.
- Provide all employees with personal protective equipment-free of charge.
- Ensure that the required PPE or clothing is worn on site and appropriate signage is displayed.
- Ensure that all incidents (including near miss cases) are reported to the appropriate role players and relevant government Institutions.

3.3.4. Other Joint Responsibilities:

- The Client, Agent, Principle and contractors shall ensure that all cleaning activities do not contradict the company policies and other applicable procedures.
- The contractor shall provide and maintain systems of work, plant and machinery that is safe and without risks to health, environment, and safety of people within Transnet National Ports Authority.
- The Contractor will give access to TNPA for inspection of plant, machinery and equipment to ensure compliance.

Agent and contractors shall take steps to eliminate or mitigate any hazard or potential hazard to the safety or health of employees, contractors, visitors and suppliers, before resorting to personal protective equipment.

3.3.5. Other Requirements

- The hazards identified by contractors and control measures should be communicated to the contractor's employees.
- A proof of communication of risk assessment should be kept in the contractors file as records.
- TNPA reserves the right to request this information from the contractor at any given time.
- In a situation where a risk assessment is not readily available or not communicated to contractor employees, the activity will be stopped until such time the contractor complies.

4. Minimum Administrative Requirements

- The principal contractor must prepare, implement and administer the Contractor's Health and Safety Management Plan. The Plan is in writing and accepted by TNPA, prior to mobilisation to the construction site for work under the Contract, to TNPA or TNPA nominated Representative, for acceptance.
- The Health and Safety Management Plan must comply with this Contract including Project Site Rules, and applicable law relating to Workplace Health and Safety and Environmental Health. Any proposed amendments or revisions to the Contractor's Safety Management Plan is submitted to TNPA for acceptance, and once accepted, it becomes part of the TNPA Safety Management Plan.
- The Health and Safety Management Plan must provide a systematic method of managing hazards according to the risk priority, and must include all mobilisation and site set-up activities.

- **The Contractor's Health and Safety Management Plan must demonstrate Management's commitment to safety and must include, but not be limited to, the following minimum auditable elements:**

4.1. Application for a work Permit (CR 3)

- TNPA who intends to carry out construction work must obtain a permit from the Provincial Director of the Department Of Labour prior to the commencement of Work. This will allow the Provincial Director to inspect certain health and safety documents and to satisfy himself the TNPA has taken the necessary precautions to ensure that the work, as far as reasonably practicable, can be carried out safely.
- This requirement is in addition to the previous notification of construction work required of a Contractor, in certain circumstances.
- A permit will only be required if the Work will:
 - ✚ Exceed 180 days;
 - ✚ Involve more than 1800 person days of Work;
 - ✚ Include a contract for the work which work is of a value equal to or exceeding thirteen million rand or is for the Construction Industry Development Board grading level 6.
- A permit required for this nature of work will only be necessary to obtain 18 months after the commencement of these regulations (7 August 2015). The Provincial Director must issue a construction work permit in writing to perform construction work contemplated in sub regulation (1) within 30 days of receiving the construction work permit application and must assign a site specific number for each construction site.
- A site specific number contemplated in sub regulation (3) must be conspicuously displayed at the main entrance to the site for which that number is assigned.
- A construction work permit contemplated in this regulation may be granted only if -
 - ✚ The fully completed documents contemplated in regulation 5(1)(a,) baseline risk assessment and (b) a suitable, sufficiently documented and coherent site specific health

and safety specification for the intended construction work based on the baseline risk assessment contemplated in paragraph (a); have been submitted; and

- ✚ proof in writing has been submitted - that the client complies with regulation 5(5) with regard to the registration and good standing of the Principal Contractor as contemplated in regulation 5(1)(j); and that regulation 5(1)(c), (d), (e), (f), (g) and (h) has been complied with.
- TNPA must ensure that the Principal Contractor keeps a copy of the construction work permit contemplated in sub regulation (1) in the occupational health and safety file for inspection by an inspector, the Client, the Client's authorised agent, or an employee.
- No construction work contemplated in sub regulation (1) may be commenced or carried out before the construction work permit and number contemplated in sub regulation (3) have been issued and assigned.
- A site specific number contemplated in sub regulation (3) is not transferrable.
- A permit of this nature will not have to be obtained if the work carried out is in relation to a single storey dwelling for a client who intends to reside in such dwelling

4.1.1 Notification of Construction work (CR4)

- The Contractor shall notify the Provincial Director of the Department of Labour in writing at least 7days before construction work commences if he intends to carry out any construction work other than work contemplated in regulation 3(1) in a form similar to annexure 2 if the intended construction work will:-
 - a) Include excavation work
 - b) Include working at a height where there is risk of falling
 - c) Include the demolition of a structure, or
 - d) Include the use of explosives to perform construction work.
- A contractor who intends to carry out construction work that involves construction of a single storey dwelling for a client who is going to reside in such dwelling upon

completion must at least 7 days before that work is to be carried out notify the provincial director in writing in a form similar to Annexure 2.

- **A copy of all notification must be forwarded to the Client on appointment.**

4.1.2 Permit to work

- The Contractor shall prior to commencing with any job on site ensure that they have obtained the necessary permit from TNPA representatives.
- Permits may possibly include the following;
 - Hot work
 - Isolation and lock-out
 - Confined spaces
 - Permit to work
 - Excavation

4.2. OHS Act Legal Appointments.

- Appointments are legal documents and shall be made in accordance to the provisions of relevant/applicable legislation. Legal appointments of competent persons are used to assist the Employer in executing his/her duties, and to ensure that all work is done safely and that proper supervision is performed at all times
- The Contractor shall submit supervisory appointments as well as any relevant appointments in writing (as stipulated by the OHS Act and Regulations (85 of 1993)), prior to commencement of work. Proof of competency must be included. See Annexure B.
- All appointed persons shall be competent and be able to prove their competency (Training Certificates).

4.3. Competency for Contractor's Appointed Competent Persons

- Contractors' competent persons for the various risk management portfolios shall fulfil the criteria as stipulated under the definition of Competent in accordance with the Construction Regulations 2014. Proof of competence for the various appointments must be included.

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

- The Principal Contractor shall submit a letter of good standing with its Compensation Insurer to the Client as proof of registration. Sub-Contractors shall submit proof of registration to the Principal Contractor before they commence work on site.
- A letter of good standing is the registration certificate issued by the Workman's Compensation Fund or any other licensed insurer when the insured has complied with all the requirements of the insurer and the requirements of the act.

The certificate will reflect the -

- Name of the insured company
- Expiry date-the certificate must be valid during the contract period.
- The registration number.
- The certificate will be issued without any alterations.

No contractor may do any work for TNPA without a valid letter of good standing.

4.5. Occupational Health and Safety Policy

- The Principal Contractor and all Sub Contractors shall submit a Health and Safety Policy signed by their Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented by the Company / Contractor.

4.6. Health and Safety Organogram

- The Principal Contractor and all Sub Contractors shall submit an organogram, outlining the Health and Safety Site Management Structure including the relevant appointments/competent persons. In cases where appointments have not been made, the organogram shall reflect the intended positions. The organogram shall be updated when there are any changes in the Site Management Structure.

4.7. Preliminary Hazard Identification and Risk Assessment and Progress Hazard

Identification and Risk Assessment

- The Contractor shall cause a hazard identification to be performed by a competent person before commencement of construction work, and the assessed risks shall form part of the construction phase health and safety plan submitted for approval by the Client. The risk assessment must include;
 - a) A list of hazards identified as well as potentially hazardous tasks;
 - b) A documented risk assessment based on the list of hazards and tasks;
 - c) A set of safe working procedures (method statements) to eliminate, reduce and/or control the risks assessed;
 - d) A monitoring and review procedure of the risks assessment as the risks change.
- The Principal Contractor shall ensure that all Sub Contractors are informed, instructed and trained by a competent person regarding any hazards, risks and related safe work procedures before any work commences and thereafter at regular intervals as the risks change and as new risks develop. Proof of this must be kept for inspection by the Client or Client Representative.
- The Principal Contractor shall be responsible for ensuring that all persons who could be negatively affected by its operations are informed and trained according to the hazards and risks and are conversant with the safe work procedures, control measures and other related rules (tool box talk strategy to be implemented).

4.8. Health and Safety Representative(s)

- The Principal Contractor and all Contractors shall ensure that Health and Safety Representative(s) are appointed under consultation and trained to carry out their functions. The appointment must be in writing. The Health and Safety Representative shall carry out regular inspections, keep records and report all findings to the Responsible Person forthwith and at health and safety meetings.

4.9. Health and Safety Committees

- The Principal Contractor shall ensure that project health and safety meetings are held monthly and minutes are kept on record. Meetings must be organised and chaired by the Principal Contractor's Responsible Person. All Contractors' Responsible Persons and Health and Safety Representatives shall attend the monthly health and safety meetings. Sub-Contractors shall also have their own internal health and safety committees in accordance with the OHS Act 85/1993 and minutes of their meetings shall be forwarded to the Principal Contractor on a monthly basis.

4.10. Health and Safety Training

4.10.1. Induction

- The Principal Contractor shall ensure that all site personnel undergo a risk-specific health and safety induction training session before starting work. A record of attendance shall be kept in the health & safety file. **A suitable venue must be supplied to house this training.**

4.10.2. Awareness

- The Principal Contractor shall ensure that, on site, periodic toolbox talks take place daily. These talks should deal with risks relevant to the construction work at hand. A

record of attendance shall be kept in the health & safety file. All Contractors have to comply with this minimum requirement. At least one of the Toolbox talks shall be on any environmental related issue.

4.10.3. Competency

- All competent persons shall have the knowledge, experience, training, and qualifications specific to the work they have been appointed to supervise, control, and carry out. This will have to be assessed on regular basis e.g. periodic audits by the Client, progress meetings, etc. The Principal Contractor is responsible to ensure that competent Sub Contractors are appointed to carry out construction work.

4.10.4. Rules of conduct.

- Principal contractors, their sub-contractors and all employees under their control, including any visitor brought onto site must adhere to the following Rules of conduct on site.

YOU MAY NOT:

- * Partake, possess or sell drugs or alcoholic beverages on site. Any employee or visitor whose action and demeanour show symptoms of possible narcosis or drunkenness shall be removed from site.
- * Indulge in practical jokes, horseplay, fighting or gambling.
- * Destroy or tamper with safety devices, symbolic signs or wilfully and unnecessarily discharge fire extinguishers.
- * Bring onto site or have in your possession a firearm, lethal weapon.
- * Assault, intimidate or abuse any other person.

- * Operate construction equipment (vehicles or plant) without the necessary training and authorisation.
- * Display insubordination toward any supervisor, foreman or Manager in respect to carrying out of properly issued instructions or orders for health and Safety reasons.
- * Enter any area where you have no business unless authorised to do so by the person in charge.
- * Negligently, carelessly or wilfully cause damage to property of others.
- * Refuse to give evidence or deliberately make false statements during investigations

4.11. General Record Keeping

- The Principal Contractor and all Sub Contractors shall keep and maintain Health and Safety records to demonstrate compliance with this Specification, with the OHS Act 85/1993; and with the Construction Regulations (July 2003). The Principal Contractor shall ensure that all records of incidents/accidents, training, inspections; audits, etc. are kept in a health & safety file held in the site office. The Principal Contractor must ensure that every Sub Contractor opens its own health & safety file, maintains the file and makes it available on request.

4.11.1. Inspection of equipment and tools.

- The following items of equipment must be regularly inspected and maintained and appropriate records kept.
 - ✚ First Aid dressing registers.
 - ✚ Fire equipment
 - ✚ Lifting equipment
 - ✚ Lifting Gear
 - ✚ Portable electrical equipment
 - ✚ Stacking and storage inspections

- ✚ Explosive power tools
- ✚ Materials hoist (where applicable)
- ✚ Pressure Vessels
- ✚ Ladders
- ✚ Excavations
- ✚ Safety harnesses
- ✚ Scaffold - static and mobile.
- ✚ Pneumatic tools
- ✚ Construction vehicles and mobile plant.
- ✚ Health and Safety Representatives checklists.

4.12. Health & Safety Audits, Monitoring and reporting

- The Client shall conduct monthly health & safety audits of the work operations including a full audit of physical site activities as well as an audit of the administration of health & safety. The Principal Contractor is obligated to conduct similar audits on all Sub Contractors appointed by them. Detailed reports of the audit findings and results shall be reported on at all levels of project management meetings/forums. Copies of the Client audit reports shall be kept in the Primary Project Health & Safety File while the Principal Contractor audit reports shall be kept in their file, a copy being forwarded to the Client. Sub-Contractors have to audit their sub-contractors and keep records of these audits in their health & safety files, available on request.

4.13. Emergency Procedures

- The Principal 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 key elements:
 - a) List of key competent personnel;

- b) Details of emergency services;
 - c) Actions or steps to be taken in the event of the specific types of emergencies;
 - d) Information on hazardous material/situations.
- Emergency procedure(s) shall include, but shall not be limited to, fire, spills, accidents to employees, use of hazardous substances, bomb threats, major incidents/accidents, etc. The Principal Contractor shall advise the Client in writing forthwith, of any emergencies, together with a record of action taken. A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc.) must be maintained and available to site personnel.

4.14. First Aid Boxes and First Aid Equipment

- The Principal Contractor and all Sub Contractors shall appoint in writing First Aider(s). The appointed First Aider(s) are to be sent for accredited first aid training. Valid certificates are to be kept on site.
- The Principal Contractor shall provide an on-site First Aid Station with first aid facilities, including first aid boxes adequately stocked at all times.
- All Sub Contractors with more than 5 employees shall supply their own first aid box. Sub-Contractors with more than 10 employees shall have a trained, certified first aider on site at all times.
- The first aider should ensure that the contents of the first aid box comply with the minimum legal requirement
- Trained first-aid personnel are available on site

4.15. Accident / Incident Reporting and Investigation

- Injuries are to be categorised into first aid; medical; disabling; and fatal. The Principal Contractor must stipulate in its construction phase health & safety plans how it will handle each of these categories. When reporting injuries to the Client, these categories

shall be used. The Principal Contractor shall investigate all injuries, with a report being forwarded to the Client forthwith.

- All Contractors have to report on the 4 categories of injuries to the Principal Contractor at least monthly. The Principal Contractor must report all injuries to the Client in the form of a detailed injury report at least monthly. **A 24 hour notification report must be submitted immediately before the end of the shift (see 24 Hour report template)**

4.16. Hazards and Potential Situations

The Principal Contractor shall immediately notify other Sub Contractors as well as the Client of any hazardous or potentially hazardous situations that may arise during performance of construction activities.

4.17. Personal Protective Equipment (PPE) and Clothing

- The Principal Contractor shall ensure that all workers are issued and wear hard hats, safe footwear and overalls. The Principal Contractor and all Sub Contractors shall make provision and keep adequate quantities of SABS approved PPE on site at all times. The Principal Contractor shall clearly outline procedures to be taken when PPE or Clothing is:
 - a) Lost or stolen;
 - b) Worn out or damaged.
- The contractor shall ensure that all employees are provided with appropriate personal protective equipment suitable for the type of activities that the employees will perform.

These shall include but is not limited to;

- ✚ Hand protection
- ✚ Ear protection
- ✚ Eye protection
- ✚ Non-slippery safety shoes
- ✚ Overalls

- ✚ Reflective vests
 - ✚ Hard hats
 - ✚ Life jacket when working 5m from the quay side
 - ✚ Safety harnesses/safety Belts
 - ✚ Rain Suit
- The contractor shall further ensure that all PPE is worn during the carrying out of activities/ task at all times

The above procedure applies to Sub Contractors and their contractors, as they are all Employers in their own right.

4.18. Occupational Health and Safety Signage

- The Contractor shall provide adequate on-site OHS signage. Including but not limited to „no unauthorised entry, report to site office,“ site office, beware of overhead work, „hard hat area“. Signage shall be posted up at all entrances to site as well as on site in strategic locations e.g. access routes, stairways, entrances to structures and buildings, scaffolding, and other potential risk areas/operations.
- The contractors employees shall comply with all SHE signage posted at various locations of TNPA Port of Cape Town.
- The contractor shall after occupation of the construction site ensure that appropriate SHE signs are displayed on site.
- Compliance to the signs shall be monitored by the TNPA Audit team (Engineers/Technicians & SHE Officer for the project).

4.19. Permits

- Permits may include the following:
 - a) Use of Explosives and Blasting

- b) Work for which a fall prevention plan is required
- c) Use of cradles
- d) Excavation
- e) Construction work Permit (to be displayed on site)

4.20. Contractors and their Sub-contractors

- The Principal Contractor shall ensure that all Sub Contractors under its control comply with this Specification, the OHS Act 85/1993, Construction Regulations 2014, and all other relevant legislation that may relate to the activities directly or indirectly.

4.21. Incentives & Penalties

- Penalties will be implemented for ongoing non-compliance to the provisions of the construction-phase health & safety plan as submitted by the Principal Contractor.

5. Physical Requirements

5.1. Demolition Work

- Prior to any demolition work being carried out, the Principal Contractor shall submit a safe working procedure and a detailed engineering survey for approval by the Client. Acceptance will then be issued to the Principal Contractor to proceed with the demolition work. The Principal Contractor shall ensure that demolition work complies with the Construction Regulations 2014.

5.2. Excavations, Shoring, De watering or Drainage

- The Principal Contractor and any relevant Sub Contractors shall make provision in their tender for shoring, dewatering or drainage of any excavation as per this specification.
- The Contractor shall make sure that:

- a) The excavations are inspected before every shift each occurrence of rain or change to the excavation / shoring and a record is kept;
- b) Any excavation shall be adequately shored if people are required to work in the excavation and the depth is more than 1.5 metres or where conditions render this necessary at lesser depths. Undercutting is not allowed.
- c) Safe work procedures have been communicated to the workers;
- d) Excavated material shall be placed as far from the trench as practically possible. a close watch shall be maintained at all times for signs of slipping, e.g. cracks developing at the edges of the excavation)
- e) The safe work procedures are enforced and maintained by the Contractor's Responsible Persons at all times)
- f) The requirements as per section 13 of the Construction Regulations are adhered to.

5.3. Edge Protection and Penetrations

- The Principal Contractor must ensure that all exposed edges and openings are guarded and demarcated at all times until permanent protection has been erected. The Principal Contractor's risk assessment must include these items. E.g. protection of decking edges, finished floor slab edges, stairways, floor penetrations, lift shafts, and all other openings and areas where a person may fall.

5.4. Explosives and Blasting

- The Principal Contractor shall ensure that a competent Contractor undertakes the use of explosives and blasting (where required). A Safe Work Procedure (SWP) must be submitted to the Client for approval before commencement of blasting work.

5.5. Piling

- The Contractor shall ensure that piling is undertaken by a competent Contractor. A SWP shall be submitted to the Client for approval before commencement of this work.

5.6. Stacking of Materials

- The Principal Contractor and other relevant Sub Contractors shall ensure that there is an appointed staking supervisor and all materials, formwork and all equipment is stacked and stored safely.

5.7. Speed Restrictions and Protection

- The Principal Contractor shall ensure that all persons in its employ, all Sub Contractors, and all those that are visiting the site are aware and comply with the site speed restriction(s). Separate vehicle and pedestrian access routes shall be provided, maintained, controlled, and enforced.

5.8. Hazardous Chemical Substances (HCS)

- The Principal Contractor and other relevant Sub Contractors shall provide the necessary training and information regarding the use, transport, and storage of HCS. The Principal Contractor shall ensure that the use, transport, and storage of HCS are carried out as prescribed by the HCS Regulations. The Contractor shall ensure that all hazardous chemicals on site have a Material Safety Data Sheet (MSDS) on site and the users are made aware of the hazards and precautions that need to be taken when using the chemicals. The First Aiders must be made aware of the MSDS and how to treat HCS incidents appropriately.

5.8.1 Handling and storage of HCS

- The contractor shall before commencement of the contract provide TNPA Port of Cape Town with a complete list of solvents and or chemicals contractor/client intend to use at the various workplaces
- The contractor shall have a contingency plan in place that adequately addresses solvent and or chemical spillages at the various workplaces.
- The contractor shall ensure that its employees are informed of the hazards and risks associated with the use of the solvents and or chemicals, and records must be kept of such information session.
- The contractor shall provide each location with a file of all solvents and or chemicals to be used at that work place and one comprehensive file must be submitted to TNPA, SHE with all MSDS documents
- MSDS documents must comply with the criteria set out in the Hazardous Chemical Substances Regulations Section 9A.
- No bulk storage of chemicals and cleaning substances are allowed on TNPA premises (<20Liters per substance).
- All chemical containers shall be kept closed after use or when stored
- No illegal or banned substances are allowed on site

5.8.2 Labelling of Containers

- The contractor shall ensure that all containers containing solvents and or chemicals are clearly labelled and no decant takes places or allow its workers to decant solvents and or chemicals into unlabelled containers.

5.9. Asbestos

- The principal Contractor is responsible for ensuring that all work involving asbestos complies with the Asbestos Regulations. Any Contractor involved in asbestos work must obtain temporary registration as an asbestos contractor from the Dept of Labour. Written safe work procedures and the relevant risk assessments must govern all asbestos work. An asbestos contractor must provide exposed employees with the necessary training and information regarding asbestos, as well as the necessary personal protective equipment. Wetting down and low speed cutting techniques must be employed wherever possible to prevent airborne asbestos.
- **Should any asbestos work involving asbestos (e.g. lagging or insulation) which falls under the definition of Demolition work, defined under the Asbestos Regulation. An Approved Inspection Authority (AIA) must be utilised to carry out air monitoring plus a decontamination unit must also be provided.**

6. Plant and Machinery

6.1. Construction Plant

- “Construction Plant” includes all types of plant including but not limited to, cranes, piling rigs, excavators, road vehicles, and all lifting equipment.
- The Principal Contractor shall ensure that all such plant complies with the requirements of the OHS Act 85/1993 and Construction Regulations 2014. The Principal Contractor and all relevant Sub Contractors shall inspect and keep records of inspections of the construction plant used on site.
- Only authorised/competent persons are to use machinery under proper supervision. Appropriate PPE and clothing must be provided and maintained in good condition at all times.
- Proofs of medical test as required by the Construction regulations 2014 are available for inspection by the Client.

- **Vehicles shall not enter site with:**
 - ✚ Defective exhaust systems
 - ✚ Serious oil or fuel leaks
 - ✚ Unsafe bodywork or loads
 - ✚ Non-standard equipment fitted.
 - ✚ Improperly seated passengers
 - ✚ Any obvious mechanical defects.
- All earth moving equipment shall be operated in accordance with good safety practice so as to protect the safety of the operator and other workers or persons in the area. All earth moving equipment shall be equipped with a reverse siren

6.2. Vessels under Pressure (VuP) and Gas Bottles

- The Principal Contractor and all relevant Sub Contractors shall comply with the Vessels under Pressure Regulations, including:
 - a) Providing competency and awareness training to the operators;
 - b) Providing PPE or clothing;
 - c) Inspect equipment regularly and keep records of inspections;
 - d) Providing appropriate firefighting equipment (Fire Extinguishers) on hand.

6.3. Fire Precautions on construction sites (CR29)

- A contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, ensure that-
 - a) all appropriate measures are taken to avoid the risk of fire;
 - b) sufficient and suitable storage is provided for flammable liquids, solids and gases;

- c) smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials;
- d) 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;
- e) combustible materials do not accumulate on the construction site;
- f) welding, flame cutting and other hot work are done only after appropriate precautions have been taken to reduce the risk of fire;
- g) suitable and sufficient fire-extinguishing equipment is placed at strategic locations or as may be recommended by the
- h) Fire Chief or local authority concerned, and that such equipment is maintained in a good working order;
- i) the fire equipment contemplated in paragraph (g) is inspected by a competent person, who has been appointed in writing for that purpose, in the manner indicated by the manufacturer thereof;
- j) a sufficient number of workers are trained in the use of fire-extinguishing equipment;
- k) where appropriate, suitable visual signs are provided to clearly indicate the escape routes in the case of a fire;
- l) the means of escape is kept clear at all times;
- m) 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
- n) a siren is installed and sounded in the event of a fire.

6.3.1 Fire Extinguishers and Fire Fighting Equipment

- The Principal Contractor and relevant Sub Contractors shall provide adequate, regularly serviced firefighting equipment located at strategic points on site, specific to the classes of fire likely to occur.
- The appropriate notices and signs must be posted up as required. A Fire risk survey must be conducted by a competent person; proof of survey must be kept in the Site Safety File.

6.4. Hired Plant and Machinery

- The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use. The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations 2014 shall apply.
- The Principal Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the health and safety file. All relevant Sub Contractors must ensure the same.
- Under no circumstances shall the contractors or unauthorized employees be permitted to Transnet NPA cranes, hoist, lifts or any other equipment including vehicles and forklift trucks. If the use of any of the above equipment is required, application must be made to the person in charge, i.e. the Project Manager or OHS Manager.

6.4.1 Equipment and machinery

- All equipment and machinery shall be in good working order and compliant with legal requirements.
- Cleaning or repairing of equipment is not permitted in premises unless permission is granted.
- All lifting equipment is identified and load-tested
- Equipment and machinery (band saw or band knives) must be effectively Safely guarded
- The contractor shall ensure that all tools and materials are kept under lock and key and an inventory be kept on site.
- Contractors shall provide their own equipment which must comply with the standards put down in the Occupational Health and Safety Act (85 of 1993

6.5. Scaffolding / Working at Heights

- Working at heights includes any work that takes place in an elevated position. The Principal Contractor must submit a risk-specific fall prevention plan in accordance with the Construction Regulations 2014 before this work is undertaken. The Client must approve the fall prevention plan before work may commence. Mechanical hoist to be used to carry material up the scaffold, depending on height.
- All scaffolding that are erected on site, shall comply with the provisions of relevant SANS codes and regulations.
- The scaffolding must be erected by competent personnel and such personnel shall be appointed in writing.
- In case of overhead work the area must be safely secured and identified with signs
- Scaffolding must be inspected by a competent person (Scaffolding Inspector) and signed off for safe to use and the register must be kept on site
- All scaffoldings declared shall be tagged as safe or unsafe to use by a competent person

- Safety harnesses/ belts must be inspected/checked and are used as required by legislation

6.6. Temporary work

- The Principal Contractor shall ensure that the provisions of section 12 of the Construction Regulations 2014 are adhered to. These provisions must include but not be limited to ensuring that all equipment used is examined for suitability before use; that all formwork and support work is inspected by a competent person immediately before, during and after placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work has been removed.
- Records of all inspections must be kept in a register on site.

6.7. Lifting Machines and Tackle

- The Principal Contractor and all Contractors shall ensure that lifting machinery and tackle is inspected before use and thereafter in accordance with the Driven Machinery Regulations and the Construction Regulations (section 22) and construction regulation 2014. There must be competent lifting machinery and tackle inspector who must inspect the equipment daily or before use, taking into account that:
 - a) All lifting machinery and tackle has a safe working load clearly indicated.
 - b) Regular inspection and servicing is carried out;
 - c) Records are kept of inspections and of service certificates;
 - d) There is proper supervision in terms of guiding the loads that includes a trained banks man to direct lifting operation
 - e) The tower crane bases have been approved by an engineer;
 - f) The operators are competent as well as physically and psychologically fit to work and in possession of a medical certificate of fitness to be available on site.

6.8. Ladders and Ladder Work

- The Principal Contractor shall ensure that all ladders are inspected monthly, are in good safe working order, are the correct height for the task, extend at least 1m above the landing, fastened and secured, and at a safe angle.
- Records of inspections must be kept in a register on site. Sub-Contractors using their own ladders must ensure the same. Ladders shall not be used as horizontal walkways or as scaffolding. Tools or equipment must be carried in suitable slung containers or hoisted up to the working position.

6.9. General Machinery

- The Principal Contractor and relevant Sub Contractors shall ensure compliance 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 who use machinery.

6.10. Electrical Installation and Machinery (CR 24)

- A Contractor must, in addition to compliance with the Electrical Installation Regulations, 2009, and the Electrical Machinery Regulations, 1988, promulgated by Government Notice No. R. 1593 of 12 August 1988, ensure that:-
 - a) 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;
 - b) all parts of electrical installations and machinery are of adequate strength to withstand the working conditions on construction sites;
 - c) 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;

- d) 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
- e) 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.

6.10.1 Portable Electrical Tools and Explosive Actuated Fastening Devices

- The Principal Contractor shall ensure that use and storage of all explosive actuated fastening devices and portable electrical tools are in compliance with relevant legislation. The Principal Contractor shall ensure that all-electrical tools, electrical distribution boards, extension leads, and plugs are kept in safe working order. Regular inspections and toolbox talks must be conducted to make workers aware of the dangers and control measures to be implemented e.g. personal protection equipment, guards, etc.
- The Principal Contractor shall consider the following:
 - a) A competent person undertakes routine inspections and records are kept;
 - b) Only authorised trained persons use the tools;
 - c) The safe working procedures apply;
 - d) Awareness training is carried out and compliance is enforced at all times; and
 - e) PPE and clothing is provided and maintained.
 - f) A register indicating the issue and return of all explosive round;
 - g) Ensure that the cartridges and explosive devices is lock up separately
 - h) Signs to be posted up in the areas where explosive actuated fastening devices are being used. **(WARNING - EXPLOSIVE ACTUATED FASTENING DEVICES).**

6.10.2 High Voltage Electrical Equipment

- No high voltage electrical equipment is present on, under or above the construction area.

6.11. Public and Site Visitor Health and Safety

- The Principal Contractor shall ensure that every person working on or visiting the site, as well as the public in general, shall be made aware of the dangers likely to arise from site activities, including the precautions to be taken to avoid or minimise those dangers.
- Appropriate health and safety notices and signs shall be posted up, but shall not be the only measure taken.
- Both the Client and the Principal Contractor have a duty in terms of the OHS Act 85/1993 to do all that is reasonably practicable to prevent members of the public and site visitors from being affected by the construction activities.

Site visitors must be briefed on the hazards and risks they may be exposed to and what measures are in place or should be taken to control these hazards and risks. A record of these „induction“ must be kept on site in accordance with the Construction Regulations.

6.12. Night Work

- The Principal Contractor must ensure that adequate lighting is provided to allow for work to be carried out safely.

6.13 Transport of workers

- The Principal Contractor and other Sub Contractors shall not:
 - a) Transport persons together with goods or tools unless there is an appropriate area or section to store them;

- b) Transport persons in a non-enclosed vehicle, e.g. truck; there must be a proper canopy (properly covering the back and top) with suitable sitting area. Workers shall not be permitted to stand or sit at the edge of the transporting vehicle.

7. Occupational Health and Hygiene.

7.1. Occupational Hygiene

- Exposure of workers to occupational health hazards and risks is very common in any work environment, especially in construction. Occupational exposure is a major problem and all Principal Contractors must ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards. Prevent inhalation, ingestion, and absorption of any hazardous substance and high noise level exposure.

7.2 Occupational Health

7.2.1 Fitness for Duty

- The Contractor must ensure that personnel under its control and authority comply with the requirements of the Fitness for Duty and are bound by its Disciplinary Provisions, regarding the possible effects of:
 - ✚ General level of personal fitness and/or medical conditions
 - ✚ The consumption of alcohol
 - ✚ The use of other drugs (prescription, pharmaceutical or illicit)
 - ✚ Fatigue
 - ✚ Stress

7.3 Health Assessments and Health Monitoring

- The principal contractor must ensure that all his personnel are healthy and medically fit for their respective assignments and must certify the same to TNPA if so requested. The

Principal Contractor is responsible for Pre-placement, Exit Medicals and On-going Health Assessments.

- The Contractor must ensure that Operators of mobile equipment undergo “fit for work” medical examination every 1 year and Crane Operators engaged in lifting man boxes every 5 years. This medical is to certify that the Medical Practitioner has examined the Operator and formed the opinion that the Operator is free from deafness, defective vision, epilepsy, heart disease, and any other infirmity likely to cause the Operator to lose control of the machine being operated.
- The Contractor is responsible for the medical welfare of its own employees, servants or agents and their families.

7.3. Welfare Facilities

- The Principal Contractor must supply Sufficient toilets (1 toilet per 30 workers), showers (1 for every 15 workers), changing facilities, hand washing facilities, soap, toilet paper, and hand drying material must be provided. Waste bins must be strategically placed and emptied regularly. Safe, clean storage areas must be provided for workers to store personal belongings and personal protective equipment. Workers should not be exposed to hazardous materials/substances while eating and must be provided with sheltered eating areas.

7.4. Alcohol and other Drugs

- No alcohol and other drugs will be allowed on site. No person may be under the influence of alcohol or any other drugs while on the construction site. Any person on prescription drugs must inform his/her superior, who shall in turn report this to the Principal Contractor forthwith.
- Any person suffering from any illness/condition that may have a negative effect on his/her safety performance must report this to his/her superior, who shall in turn

report, this to the Principal Contractor forthwith. Any person suspected of being under the influence of alcohol or other drugs must be sent home immediately, to report back the next day for a preliminary inquiry. A full disciplinary procedure must be followed by the Principal Contractor or Sub Contractor concerned and a copy of the disciplinary action must be forwarded to the Principal Contractor for his records.

7.5. Periodic Medical

- All employees of contractors working within TNPA, Port of Cape Town shall undergo annual medical surveillance which will include:
 - Hearing Tests
 - Audio Tests and /or
 - Other legislative required tests
- The contractor shall confirm in writing to TNPA, SHEQ Department that the intended employees to work at TNPA, Cape Town sites have been declared medically fit.

8. Section 37 Agreements

- **This document is a legal agreement in terms of section 37(2) of the OHS Act 85 of 1993. The agreement is between the clients (TNPA) and the Contractor.**
- The agreement will confirm that the appointed person of any company will remain responsible and accountable for his own employees, including any labour hire employees.
- Have the agreement form completed and signed by the Chief Executive Officer or Managing Director of your company as soon as possible and return it to the relevant project manager for his signature.
- The relevant **TNPA Project Manager** will sign the agreement on behalf of the client.

9. SHE Inspections

- TNPA SHEQ department will conduct SHE inspections at a frequency determined by themselves based on the level of risk of the project.
- The Contractor is always expected to be compliant at all time within the workplaces where the contractor delivers a service to TNPA Port of Cape Town.
- Construction Projects will be classified into High/Medium/Low risk with the frequency of inspections being higher depending on the level of risk.

10. SHE Communication & Awareness

- The Contractor shall notify TNPA of any complaints lodged by a third party, and request appropriate information and measures to address such complaints. The Contractor is responsible for maintaining a complaints register in which all complaints are recorded, as well as action taken. This register shall be available to TNPA on request. Monthly news flashes are communicated by e-mail and SHE notice boards.
- The contractor's employees will refer to the SHE notice boards in their areas of work for SHE communication.
- Monthly news flashes are communicated by e-mail and SHE notice boards.

11. Incident and Accident Reporting/ Investigation

- The contractor shall ensure that its employees report all incidents and accidents to TNPA, SHEQ Department immediately or before the end of their shift.
- It is the responsibility of the Contractor to report the reportable incident/Accident according to the relevant legislation (OHS Act 85 of 1993, NEMA Act 107 of 1998, Merchant Shipping Act) to the Department of Labour as stipulated within the Act

- The contractor or a duly authorized representative shall form part of the investigation process
- The contractor shall ensure that the recommendations upon acceptance are implemented successfully.

12. Insurance

- The contractor shall effect at his own cost any insurance which he deem necessary in his own interest to cover lose and/or damage to the property of Transnet National Port Authority or a third party. At the time of award of the contract, the contractor shall submit to the Project Engineer copies of the policy or policies of insurance and the receipts for payment of the current premiums. These insurances shall be maintained in force for the duration of the contract and shall be affected with insurers and on terms approved by Transnet National Port Authority.
- The Contractor will be required to certify that he does carry the following insurance cover for the full duration of the Contract:
- Contractor's property - the full value of all material, plant and equipment brought on to the site by the Contractor for the performance of his obligations in terms of the contract.
- Public liability - the contractor shall take out a public liability insurance policy in an amount of R1 000 000, 00 (One Million Rand) per occurrence on terms approved by Transnet NPA.

13. Security

- The Contractor shall adhere to the Port security measures as enforced by TNPA Port of Cape Town. The contractor is responsible for the safeguarding of his/her own equipment and material while on site and/or working in the Port.
 - ✚ Ensure that the contractor/ client has been screened and has a security clearance
 - ✚ Ensure has signed the confidentially agreement

- ✚ Ensure that all the employees on his/her site adhered to security rules and Visitors card are worn at all times.

14. Environmental Requirements

- The contractor must carry-out an Environmental risk assessment that will identify all environmental risks. All employees must be familiar with environmental risks, their impact and preventative measures. The contractor must have an environmental management plan (EMP) or Environmental Control Plan (ECP) at all times on site. The contractor/ client must comply with all applicable environmental legislation at all time in the site.

14.1. Waste Management

- A **Waste Management Method Statement** must be submitted to the TNPA for written approval.
- WASTE LEGISLATION
- **Definition of Waste:**
“Waste” means any substance, whether or not that substance can be reduced, re-used, recycled and recovered.-
 - (a) that is surplus, unwanted, rejected, discarded, abandoned or disposed of;
 - (b) Which the generator has no further use of for the purposes of production;
 - (c) That must be treated or disposed of;
- The Contractor shall institute on-site waste management general duties 16 (1e-f) Holder of waste must’ within the holder’s power’ take all reasonable measures:-
 - Disposed responsible manner:
 - Not endanger health/environment/cause nuisance-noise, odour or visual impact
 - Prevent any employee/any person under supervision from contravening this Act

- Prevent the waste used for unauthorised purpose
 - Contravenes or fails to comply – liable with a fine not exceeding R10M
- The waste management program will address, but is not limited to, the following:
 - An inventory of expected wastes and their categories;
 - Categories of waste;
 - Plan of dealing with waste;
 - Compliance with local authority requirements;
 - Auditing and monitoring;
 - Methods for dealing with spillages and clean up.
 - All waste shall be collected and contained immediately. Contractor shall institute a clean-up of the site if so instructed by the TNPA SHEQ Officials. This clean up shall be for the contractor's account.
 - Contractor shall not dispose of any waste and/or construction debris by burning or burying. The use of waste bins and skips is recommended. The bins shall be provided with lids and an external, secure closing mechanism to prevent their contents blowing out. Contractor shall ensure that all waste is deposited by his/her employees in the waste bins for removal by the local authority. Bins shall not be used for any purposes other than waste collection and shall be emptied on a regular basis. All waste shall be disposed of off-site at approved landfill sites and disposal certificate must be produced.

14.2. Dust / Smoke Control

- A **Dust Control Method Statement** must be submitted to the SHEQ Manager for written approval, where applicable.
- The Contractor shall be responsible for the continued control of dust arising from his operations. The Contractor shall inform the TNPA SHEQ Manager/Construction/Projects

Safety Officer 48 hours in advance of anticipated “unavoidable” dust/smoke-generating activities.

- No vehicles are allowed to leave the Port covered with dust/mud/sand; vehicles must at all times be kept clean.
- Special precautions should be taken to minimise the generation of dust in the vicinity of the following sensitive areas:
 - ✚ Administration office blocks
 - ✚ Residential areas
 - ✚ Other (as specified by TNPA)

14.3. Noise Control

- The Contractor shall take precautions to minimise noise generated on site as a result of his operations, especially when working in areas or on activities that may impact on neighbouring land users.
- The Contractor shall comply with the applicable Bylaw Regulations with regards to noise, to be included into their detailed method statements.

14.4. Transportation

- Transportation of passengers in the load box of a bakkie will not be permitted in the Port.
- No transportation of passengers and material/equipment on the same load box will be allowed on site and in the Port.
- No hanging over the back of a bakkie or truck by people will be allowed within the Port of Cape Town. Bakkie(s) with an appropriate canopy and appropriate seating should be used for the transportation of people in the Port and on site.
- Speed limit within the Port is strictly 60 km/h unless otherwise indicated and no speeding will be tolerated.

15. General Site Procedure

15.1 Site establishment

- The Contractor is advised that certain areas within the port have been identified as being Environmentally Sensitive Areas. The contractor shall ensure that the construction activity has been carried out in a manner which the environment is been protected.
- In order to minimize adverse impacts to the sensitive area during construction activities the, sensitive area shall not be entered or used for any purpose unless a written motivation has been submitted to the SHEQ Manager by the Responsible Person, and a written approval has been received from the SHEQ Manager.
- The Contractor shall prevent physical disturbance or pollution of these areas. The SHEQ Manager may impose conditions on operations in or near sensitive area including instructing the Responsible Person to restrict the number of construction personnel and equipment operating near sensitive area in the port.

15.2. Site Camp

- Prior to establishment TNPA shall approve the location and size of the Contractor's Camp.
- It is also the responsibility of the contractor to ensure that the Contractor's Camp is neat and tidy and labourer's facilities are of acceptable standards.
- Proper housekeeping should be maintained at all times by the Contractor as it will also from the basis of the routine TNPA inspections.

15.3. Demarcation of the site

- It is important that activities are conducted within a limited area to facilitate control and to minimise the impact on the existing natural environment and the surroundings landowners.

- Contractor shall demarcate the boundaries of the site in order to restrict construction activities to the site.
- The method of demarcation and the location of the demarcated area shall be determined by the Contractor and approved by the TNPA prior to any work being undertaken.
- The Contractor shall ensure that all his plant, labour and materials remain within the boundaries of the site. Failure to do so may result in the Contractor being required to fence off the boundaries of the site at his own expense to the satisfaction of the TNPA.

15.4. Handling of waste in site camp

- Waste generated at the construction camps shall be separated into recyclable and non-recyclable waste, and shall be separated as follows:
 - Hazardous waste (including old oil, diesel, petrol tins, paint, bitumen, etc.)
 - Recyclable waste (paper, tins, glass etc)
 - General waste
 - Reusable construction material
- Wastewater from any other ablution or kitchen facilities on site shall be discharged into a suitable, well-managed conservancy tank. The design specifications for conservancy tanks shall be submitted to the TNPA for approval. Contractor shall be responsible for ensuring that the system continues to operate effectively throughout the project and that the conservancy tank is emptied as required during the project. Contractor shall employ a suitably qualified sub-contractor or the local authority to empty the conservancy tank.
- Recyclable waste shall be deposited in separate skips/bins and removed off site for recycling. Contractor may wish to enter into an agreement with the surrounding communities and/or his staff with regard to the collection and sale of recyclable and reusable materials.

- Hazardous waste, including waste oil and other chemicals (e.g. paints, solvents) shall be stored in (an) enclosed area(s) for the duration not exceeding the required time of the Waste legislation, and shall be clearly marked. If deemed necessary by the TNPA, the Contractor shall obtain the advice of a specialist waste expert with regard to the storage of hazardous waste. Such waste shall be disposed off site by a specialist waste contractor, at a licensed hazardous waste disposal site. The Responsible Person (Holder of Waste) must maintain records proving the correct disposal of hazardous waste.
- The TNPA shall be consulted about, and agree to, the method of storage and disposal of hazardous waste prior to the submission of a method statement.

15.5. Servicing / Refuelling of Construction Equipment

- Servicing and fuelling should preferably occur off site at designated Fuel Service Stations.
- However if these activities occur on site, the contractor shall ensure that all servicing of vehicles and equipment takes place in designated areas agreed upon by the TNPA. All waste generated by these activities shall be managed. The waste shall be collected and disposed of off-site at an appropriately licensed landfill site. All equipment that leaks onto the ground shall be repaired immediately or removed at the Contractor's cost.
- Similarly, no vehicles or machines shall be refuelled on site except at designated refuelling locations, unless otherwise agreed with the TNPA. The contractor shall not change oil or lubricants anywhere on site except at designated locations, except if there is a breakdown or an emergency repair. In such instances, the contractor shall ensure that he/she has appropriate absorbent materials (or equivalent) and/or preferably drip trays available to collect any oil, fluid, etc.

15.6. Fuels and Chemicals

- Contractor shall keep the necessary materials and equipment on site to deal with ground spills of any of the materials used or stored on site.

- Contractor shall ensure that no oil, petrol, diesel, etc. is discharged onto the ground. Pumps and other machinery requiring oil, diesel, etc. that is to remain in one position for longer than two days shall be placed on drip trays. The drip trays shall be emptied regularly and the contaminated water disposed of off-site at a facility capable of handling such wastewater. Drip trays shall be cleaned before any possible rain events that may result in the drip trays overflowing and before long weekends and holidays.
- Used oil shall be stored at a central location on site prior to removal off site. Contractor shall remove all oil-, petrol-, and diesel-soaked sand immediately and shall dispose of it as hazardous waste.
- Should the TNPA SHEQ Manager and/or the relevant authorities deem it necessary to institute a programme for the removal of contaminated ground resulting from the non-compliance of the controls detailed above, these costs will be for the contractor's account. The TNPA SHEQ Manager and relevant authorities, if appropriate shall approve remedial action.

15.7. Tanker Terminal

- The contractor should comply with all applicable legislation, procedures and good practise of the tanker terminal. The contractor shall adhere to all the rules of this tanker terminal. These rules includes but not limited to the following:
- Cameras equipment that contains batteries may produce incentive spark from the flash or the operation of electrically-powered items aperture control and films winding mechanism. Therefore this equipment should not be used in hazardous areas, unless it is certified as being suitable for use in the hazardous area.
- Communication equipment can be used unless it is certified intrinsically safe or other approved design.
- All communication equipment such as telephone, talk back system, signal lamps, search lights loud hailer, cellular phoned, cigarette lighters , closed circuit television and

electrical control for ship whistling should neither be used nor connected or disconnected when the area in which they are positioned come within the boundary of shore hazardous zone

- No open flame as well as smoking is allowed in the Class 1 zone.

16. Site Rehabilitation

- Contractor shall be responsible for rehabilitating any areas cleared or disturbed for construction purposes that are to be incorporated into the open space or buffer zones (e.g. pipeline routes, road fringes and roads).
- All construction equipment and excess aggregate, gravel, stone, concrete, bricks, temporary fencing and the like shall be removed from the site upon completion of the work. No discarded materials of whatsoever nature shall be buried on the site without the written approval of the TNPA. No dumping of many materials or aggregate without written approval from the SHEQ Manager.

17. Management and Monitoring

- This section focuses on the systems and procedures required to ensure that the SHE Specification are effectively implemented. The emphasis is on monitoring, training and penalties/incentives aimed at ensuring compliance to the SHE Specification, Method Statements and SHE Legal requirements. Suitable documentation and external checks are crucial to ensure compliance and methods to achieve this are also presented in this section.

18. General Inspection Monitoring and Reporting

- TNPA shall:

- ✚ Conduct SHE inspections at a frequency determined by the level of risk of the project.
- ✚ The Contractor is always expected to be legally compliant at all time within the workplaces where the contractor delivers a service to TNPA Port of Cape Town.
- ✚ Construction Projects will be classified into High/Medium/Low risk with the frequency of inspections being higher depending on the level of risk.
- ✚ Provide the contractor with a monthly written report, detailing compliance and non-compliance with the SHE Specification, Method Statements and applicable SHE Legislation, as well as SHE performance. This SHE Performance and Compliance Report will be available to the Authorities, if it required by a RoD or Environmental Authorisation.
- ✚ Maintain a record of major incidents (spills, impacts, complaints, legal transgressions etc) as well as corrective and preventive actions taken, for submission to the SHEQ Manager at the scheduled monthly report back meetings.
- ✚ If any major non-conformance and/or incident occur, TNPA reserves the right to stop work on site until the incident/non-conformance has been cleared or remedied to the satisfaction of TNPA. All costs incurred will be for the contractor's account including stoppage time, or time lost.
- ✚ Conduct regular internal audits to ensure that the system for implementation of the SHE Specification, Method Statements and Risk Assessment are operating effectively. The audit shall check that a procedure is in place to ensure that:
 - ✚ the method statements, SHE Specification and Risk Assessment being used are the current versions;

- ✚ variations to the Risk Assessment/Method Statements and non-compliances and corrective actions are documented; appropriate SHE training of personnel is undertaken;
- Emergency procedures are in place and effectively communicated to personnel.

19 Licensing and Permits

- Any activity that requires a licence, permit of authorisation from the Port Authority or any Government Authority that is prescribed by legislative requirements must be obtained before the undertaking of the work. The contractor shall strictly comply with conditions and requirements pertaining to the issue of such permits. The contractor shall ensure compliance to these licences, permits or authorisations at all times. These include, but are not limited to the following;
 - ✚ Hot work permit
 - ✚ Cold work permit
 - ✚ Working in confined spaces,
 - ✚ Lock out certificate (in particular when doing electrical work)
 - ✚ Working at height (above 3 meters)
 - ✚ EIA-Record of Decision/Environmental Authorisation(usually conducted independently and provided by TNPA)
 - ✚ Gas free certificates
 - ✚ Isolation permits
 - ✚ Diving permits
 - ✚ Working with spark (Tanker terminal)
 - ✚ Heavy lifts
 - ✚ Work on electrical equipment

- The permit is essentially a document which describes the work to be done and the precaution to be followed while doing the work; it sets out all necessary safety procedures and the equipment. The permit should clearly specify the particular item of equipment or area involved the extent of work permitted, what conditions are to be observed and time and duration of validity. The number of permits required will vary with the complexity of planned activity.

ANNEXURE A

PRE CONSTRUCTION HEALTH AND SAFETY SUBMISSIONS

The Principal Contractor and Sub Contractors must submit proof of compliance with Annexure A with the construction phase Health and Safety plan where applicable.

Requirement	OHS Act Requirement	Submission Date
Notification of Intention to Commence Construction / Building Work	Construction Regulation	Before commencement on site
Assignment of Responsible Person to manage Construction Work	All relevant appointments, as per OHS Act and Construction Regulations	Before commencement on site
Competence of Responsible Persons	Client Requirement & OHS Act	Together with H&S plan
Compensation of Occupational Injuries and Diseases Act (COIDA) 130 of 1993	COIDA Requirement	Together with H&S plan
Occupational Health and Safety Policy	OSHACT	Together with H&S plan
Health and Safety Organogram	Client requirements	Together with H&S plan
Initial Hazard Identification and Risk Assessment based on the Client's assessment	Construction regulation	Together with H&S plan
Health and Safety Representative	OSHACT	Submit as soon as there are more than 20 employees on site

ANNEXURE B

PRINCIPAL CONTRACTOR: PRE-CONSTRUCTION HEALTH AND SAFETY APPOINTMENTS

The Principal Contractor shall make the following appointments according to the initial risk assessment: (further appointments could become necessary as project progresses)

Appointments	OHSA Reference	Requirement
CEO Assignee	Section 16(2)	A competent person to assist with the on-site H&S overall responsibility – Contractor’s Responsible Person
Construction Manager	CR 8 (1)	A competent person to supervise and be responsible of Health & Safety related issues on site. The person is appointed to assist the CEO with his/ her overall duties
Assistant construction manager	CR 8 (2)	A competent person to assist with daily supervision of construction / building work. The person assists the Construction Manager.
Health and safety officer	CR 8(5)	Register with statutory body approved by Chief inspector and have the necessary competencies and resources to assist the contractor
Construction supervisor	CR 8 (7)	A competent person to supervise and be responsible of Health & Safety related issues on site. The person is appointed to assist the CEO with his/ her overall duties
Assistance Construction supervisor	CR 8 (7)	Same duties as above
Contractor	CR 7 (1)(c)(v)	
Temporary works designer	CR 12 (1)	
Competent Person- Risk Assessment	CR 9(1)	A competent person, as defined in regulation 1, 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 (competent person)
Fall Protection Plan	CR 10 (1)(a)	Competent person
Excavation work supervisor	CR 13 (1)(a)	Competent person
Demolition work Supervisor	CR 14 (1)	Competent person
Scaffolding work supervisor	CR 16 (1)	Competent person

ANNEXURE D

CONTRACTOR MANAGEMENT CHECKLIST

The Principal Contractor shall comply but not be limited to the following requirements: report on these to the Client at progress meetings or at least monthly whichever is sooner

What	When	Output	Accepted by Client & date
Induction training	Every worker before he/she starts work.	Attendance registers	
Awareness Training (Tool Box Talks)	daily	Attendance registers	
Health and Safety Reports	Monthly	Report Covering : <ol style="list-style-type: none"> 1. Incidents/accidents and investigations 2. Non conformances by employees and contractors 3. Internal and external H&S audit reports 	
Emergency procedures	Ongoing evaluation of procedures	Table procedures in writing as well as tel. numbers	
Risk assessment	Updated and signed off at least monthly	Documented risk assessment	
Safe work procedures	Drawn up before workers are exposed to new risks	Documented set of safe work procedures (method statements) updated and signed off.	
General inspections	Weekly & daily	Report OHS Act compliance : <ol style="list-style-type: none"> 1. Scaffolding 2. Excavations 3. Formwork & support work 4. Explosive tools 	
General inspections	Monthly	<ol style="list-style-type: none"> 1. Fire-fighting equipment 2. Portable electrical equipment 3. Ladders 4. Lifting equipment /slings 	
List of Contractors	List to be updated weekly	Table list, number of workers and Company tel. numbers	
Workman's Compensation	Ongoing	Table a list of Contractor's workman's compensation proof of good standing	
Construction site	Ongoing	Table a report of all signed up	

rules & Section 37.2 Mandatory Agreement		Mandatory.	
--	--	------------	--

ANNEXURE E

APPLICATION FOR A PERMIT TO DO CONSTRUCTION WORK

[In terms of Regulation 3(2) of Construction Regulations, 2014]

The application must be submitted with the following documents:

1. Health and Safety specification
2. Health and Safety Plan
3. Baseline risk assessment

1. Name , postal address and telephone numbers of the client:

2. Details of the Agent.

- a. Title, Surname and Initials _____
- b. Identity number /Passport Number _____
- c. Registration number with SACPCMP _____
- d. Office Tel. number and /or Mobile number _____
- e. Postal address _____

3. Name, postal address and telephone numbers of the appointed principal contractor.

4. Name ,Postal address and telephone numbers of designer of the project:

5. Name ,Postal address and telephone numbers of the following persons:

- a. Construction Manager:

- b. Construction Health and Safety Manager:

c. Construction Health and Safety Officer:

6. Exact physical address of the construction and site office:

7. Nature of Construction work:

8. Expected Commencement date:

9. Expected Completion date:

10. Estimated maximum number of persons on the construction site

11. Planned number of contractors on site accountable to principal contractor

12. Name(s) of Contractors appointed:

13. _____
Signature of Client/Client's Agent

14. _____
Signature of the Principal Contractor

FOR OFFICE ONLY

Authorization /Unique No.	Labour Centre	Official Approval Stamp
----------------------------------	---------------	-------------------------

15. Date of application: _____

16. Submitted documents prescribed in Construction Regulation 5(4) (please Tick v):

CR 5(1)(a)		CR 5(1)(b)		CR 5(1); (C-S)	
------------	--	------------	--	----------------	--

17. Results of the application (please Tick v):	Approved		Declined	
--	----------	--	----------	--

18. Reason for declining the application :

19. _____

Signature of the Supervisor

20. _____

Signature of revoking Officer /Inspector

ANNEXURE F

**NOTIFICATION OF CONSTRUCTION WORK
OCCUPATIONAL HEALTH AND SAFETY ACT, 1993
(Regulation 4 of the Construction Regulations, 2014)**

NOTIFICATION OF CONSTRUCTION WORK

1. (a) Name and postal address of principal contractor:

(b) Name and tel.no of principal contractor's contact person:

2. Principal contractor's compensation registration number:

3. (a) Name and postal address of client:

(b) Name and tel.no of client's contact person or agent:

4. (a) Name and postal address of designer(s) for the project:

(b) Name and tel. no of designer(s) contact person:

5. Name and telephone number of principal contractor's supervisor on the site appointed in terms of regulation 8(1).

6. Name/s of principal contractor's sub-ordinate supervisor on site appointed in terms of regulation 8(2).

7. Exact physical address of the construction site or site office:

8. Nature of the construction work:

9. Expected commencement date: _____

10. Expected completion date: _____

11. Estimated maximum number of persons on the construction site.

Total: _____ Male: _____ Female: _____

12. Planned number of contractors on the construction site accountable to principal contractor: _____

13. Name (s) of contractors already selected.

Principal Contractor

Date

Client's Agent (where applicable)

Date

Client

Date

THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR PRIOR TO COMMENCEMENT OF WORK ON S

ANNEXURE G

CONTRACTORS CHECKLIST
SAFETY, HEALTH AND ENVIROMENTAL REQUIREMENTS

CONTRACTOR	YES	NO	COMMENTS
1. Site Specific Organogram of reporting structure. This document must provide all persons appointed in terms of OHS Act No. 85 of 1993 including contact details. (rev, date, approval)			
2. Contractor scope of work information (Company Profile)			
3. Notification of Construction Work to the Department of Labour: Document to display required information as per OHS Act No.85 of 1993 – Construction Regulations Annexure A, Must carry the stamp of acceptance from the Department of Labour			
4. APPLICATION FOR A PERMIT TO DO CONSTRUCTION WORK			
5. Valid Letter of Good Standing with FEM/WCA: And proof of relevant insurances to carry out work.			
MANAGEMENT PLANS			
6. Copy of reference documents: Health, Safety and Environmental Specification Including a signed register of communication to Managers, Supervisors & Safety Officers			
7. Contractor Health & Safety Plan correlating with TNPA Health and Safety Specification			
8. Contractors Health and Safety Policy			
9. Contractors Incident Management Plan			
10. Site Specific Emergency Plan			
11. Contractors Traffic Management Plan (if applicable)			
12. Contractor Environmental Management Plan correlating with TNPA Environmental Plan			
13. Procedure for handling Hazardous Chemical Substances and			

Applicable MSDS.			
APPOINTMENTS			
14. Fully completed Appointments of the following but not limited to:			
<ul style="list-style-type: none"> • Sec. 16(2) – Delegated Authority (Assistant to the CEO) 			
<ul style="list-style-type: none"> • CR 8(7) – Construction Supervisor 			
<ul style="list-style-type: none"> • CR 8(8) – Assistant Construction Supervisor 			
<ul style="list-style-type: none"> • CR 8(5) – Construction Safety Officer 			
<ul style="list-style-type: none"> • CR 9(1) – Risk assessor 			
<ul style="list-style-type: none"> • CR 10. (1)(a) – Fall Prevention Coordinator (if applicable) 			
<ul style="list-style-type: none"> • CR 23.(d)(k) – Vehicle operator and Inspector 			
<ul style="list-style-type: none"> • GSR 3.4 – First aider 			
<ul style="list-style-type: none"> • CR 29 (h) – Fire Fighter 			
<ul style="list-style-type: none"> • Sec 24, GAR 9(2) – Incident Investigator 			
<ul style="list-style-type: none"> • CR 13(1)(a) – Excavation Supervisor 			
<ul style="list-style-type: none"> • CR 28(a) – Stacking and Storage Supervisor 			
<ul style="list-style-type: none"> • CR 12(1) – Temporary works designer 			
<ul style="list-style-type: none"> • CR 14(1) – Demolition work supervisor 			
<ul style="list-style-type: none"> • CR 16(1) – Scaffolding work supervisor 			
<ul style="list-style-type: none"> • CR 17 (1) – Suspended platform work supervisor 			
<ul style="list-style-type: none"> • CR 18(1)(a) – Rope access supervisor 			
<ul style="list-style-type: none"> • CR 19(8)(a) – Material host Inspector 			
<ul style="list-style-type: none"> • CR 20(1) – Bulk mixing plant supervisor 			
<ul style="list-style-type: none"> • CR 21(2) – Explosive actuated fastening devices inspector 			
<ul style="list-style-type: none"> • Sec 17(1) – SHE Rep (more than 20 employees) 			
<ul style="list-style-type: none"> • GSR 13(a) – Ladder Inspector <p>An abbreviated CV of the above appointed persons shall be attached to the appointment. Competency certificates for safety training courses will also be attached as required in specifications</p>			
15. Proof of firefighting training CR 29(h) & list of firefighting team members.			
16. Elevated work training (Rescue/ Safety harnesses) – accredited Training <i>(If applicable)</i>			
17. Fall Protection Plan by competent person / Rescue equipment <i>(If applicable)</i>			
18. Baseline Risk Assessment indicating the full scope of work and risk profile – High risk task inventory registers to be			

attached.			
19. (HIRA) Risk Assessment (Method Statement, Safe Work Procedure) to be generated for each specific task to be performed on the project i.e.: Site establishment, confined spaces, working at heights, working near water, excavations etc. Note: before establishment they can supply what they will start with – site establishment, fencing, clear & grub...so only request what is relevant at the time.			
20. PPE Policy and most recent issue register.			
INDUCTION			
21. Induction application forms completed for every employee of the contractor performing work on site; The following shall be attached:			
• Employee scope of work;			
• Proof of site specific induction;			
• Copy of ID Document;			
• Legal Letter of Appointment;			
• Abbreviated CV for Managers, Supervisors & Safety Officers (If not previously included);			
• Proof of competence i.e.: Artisans, drivers, operators etc.;			
• Valid medical certificate of fitness done by an Occupational Health Practitioner			
REGISTERS			
22. Copy of equipment registers to be used with copy of each item's inspection checklist. Copy of nominated responsible person to conduct monthly inspections and proof of their competency. All other statutory registers as required by the OHS Act No. 85 of 1993.			
• Site visitors register			
• Excavation Inspection Register			
• Hand tools Inspection register			
• Barricading Inspection Register			
• Traffic Inspection Register			
• Mobile Toilet Inspection Register			
• Daily Risk Assessment and Toolbox Talk			
• PPE Inspection Register			
• First Aid kit Inspection Register			

• Fire Fighting Equipment Register			
• Portable electrical Equipment Register			
• Pneumatic Tool Register			
• Compressor Checklist			
• Ladder Inspection Register			
• Vehicle Inspection Register			
• Working at Height Equipment Register			
OTHERS			
23. Section 37(2) mandatory agreement between client - contractor and contractor - sub contractor. As well as:			
• CR 5.1(k) Principle Contractor appointment			
• CR 7(1)(c)(v) Sub Contractor appointment			
24. Training Matrix (Management and Supervisors)			
25. Copy of the OHS act, COID and Construction Regulation 2014			

SHE DEPARTMENT CONTACTS

Physical Address:

Risk Management Building

Duncan Road

Postal Address:

P.O. Box 4245

Cape Town

NAME	DESIGNATION	TELEPHONE	E-MAIL
Motlagomang Chobokoane	SHEQ Manager	083 283 3451 021 449 4735	Motlagomang.chobokoane@transnet.net
Moleboheng Methola	Risk Manager	021 449 4817 083 7552532	Moleboheng. Methola @transnet.net
Jeanette Ramatapa	Risk Specialist	021 449 2152 060 579 7889	Jeanette.ramatapa@transnet.net
Michael Jacobs	Risk Specialist	021 449 2725 083 419 4580	Michael.jacobs@transnet.net
Thozama Khophe	Risk Specialist	021 449 2471 083 260 3474	Thozama.khophe@transnet.net
Phumlile Zondi	Risk Specialist	021 449 3182 0837047139	Phumlile.Zondi@transnet.net

Michael Melato	Environmental Specialist	021 4492152 083 460 0021	Michael.melato@transnet.net
Bongani Dilima	Environmental Specialist	021 4492736 083 460 3261	Bongani.Dilima@transnet.net
Johnny Loji	Fire Chief	021 449-5848 083 561 8803	<u>Johnny.loji@transnet.net</u>

**APPOINTMENT AS AN AGENT IN TERMS OF CONSTRUCTION REGULATION 5(5) OF THE
OCCUPATIONAL HEALTH AND SAFETY ACT (85 OF 1993) AS AMENDED**

NAME OF COMPANY:.....

IN TERMS OF THE ABOVE-MENTIONED ACT:

I/WE.....(FOR EMPLOYER) having been appointed to ensure full compliance with the OHSA and Regulations hereby appoint you.....
Full name

as the Health and Safety Agent in terms of the Construction Regulations for the following project:
.....

YOUR RESPONSIBILITIES ARE TO:

1. Ensure compliance to the duties of a client as set out in the Construction Regulations.

A copy of the Construction Regulation of the OHSA is attached for your perusal and you are to familiarise yourself with the requirements of the Act and regulations.

This appointment will be effective from the date of acceptance thereof until the completion of the construction work.

Please confirm your acceptance of this appointment by signing and returning to me the duplicate copy of this letter.

Signature:
Manager (for employer)

Signature:
Witness

Designation:

Designation

Date:.....

Date:

ACCEPTANCE

Iunderstand the implications of the appointment and confirm my acceptance of this appointment. I have studied the relevant sections of the Act and Regulations and understand what is required of me.

Signed:

Date:

APPOINTMENT AS A TEMPORARY WORK DESIGNER IN TERMS OF CONSTRUCTION REGULATION 12(1) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT (85 OF 1993) AS AMENDED

NAME OF COMPANY:.....

IN TERMS OF THE ABOVE-MENTIONED ACT:

I/WE.....(FOR EMPLOYER) having been appointed to ensure full compliance with the OHSA and Regulations hereby appoint you.....
Full name

as the competent person to design, inspect and approve the erected temporary works for the following project:

.....

YOUR RESPONSIBILITIES ARE TO:

1. Ensure compliance to Construction Regulation 12.
2. Ensure compliance with the project health and safety plan as well as any requirements prescribed by the client or the principal contractor through their authorised agents relating to formwork and support work.

A copy of the Construction Regulation of the OHSA is attached for your perusal and you are to familiarise yourself with the requirements of the Act and regulations.

This appointment will be effective from the date of acceptance thereof until the completion of the construction work.

Please confirm your acceptance of this appointment by signing and returning to me the duplicate copy of this letter.

Signature:.....
Manager (for employer)

Signature:.....
Witness

Designation:

Designation

Date:.....

Date:

ACCEPTANCE

Iunderstand the implications of the appointment and confirm my acceptance of this appointment. I have studied the relevant sections of the Act and Regulations and understand what is required of me.

Signed:

Date:

APPOINTMENT AS A CONSTRUCTION MANAGER IN TERMS OF CONSTRUCTION REGULATION 8(1) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, (85 OF 1993) AS AMENDED

NAME OF COMPANY:.....

IN TERMS OF THE ABOVE-MENTIONED ACT:

I/WE.....(FOR EMPLOYER) having been appointed to ensure full compliance with the Construction regulations, hereby appoint you.....
Full name

as a Construction Manager for the following project:

.....

YOUR RESPONSIBILITIES ARE TO:

1. Manage all Construction work on the premises in accordance with CR8 (1) to ensure the requirements of the Construction Regulations are adhered to.
2. Manage and ensure compliance to relevant SANS Codes incorporated in terms of Regulation 14(1) and (GNR 1020 of 18/7/2003).
3. Ensure compliance with all the requirements of the National Building Regulations.
4. Ensure compliance with the project health and safety plan as well as any requirements for health and safety prescribed by the client or the principal contractor through their authorised agents.

A copy of the said Construction Regulations and a copy of the health and safety plan are attached for your convenience and you are to familiarize yourself with the requirements of the regulations and the plan and ensure that all construction work is done in accordance with these requirements.

This appointment will become effective on the date of acceptance thereof, and will be valid until completion of the construction work.

Please confirm your acceptance of this appointment by signing and returning to me the duplicate copy of this letter.

Signature:
Manager (for employer)

Signature:.....
Witness

Designation:

Designation

Date:.....

Date:

ACCEPTANCE

Iunderstand the implications of the appointment and confirm my acceptance of this appointment. I have studied the relevant sections of the Act and Regulations and understand what is required of me.

Signed:

Date: