

PART C3: SCOPE OF WORK

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C3.1 EMPLOYER'S WORKS INFORMATION

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RECLAMATION FLOATING LINE PIPE AT RECLAMATION BERTH IN THE PORT OF RICHARDS BAY FOR THREE**SECTION 1****1 Description of the works****1.1 Executive overview**

The Port of Richards Bay requires the services of a *Contractor* for the Refurbish, Repair and Re-installation of Dredging Reclamation Floating Line Pipe located at Reclaim Berth at Port of Richards Bay.

The works should comply with the OSH Act (1993) and Construction Regulations (2014) including Port Health, Safety and Environmental Regulations and any other applicable standards as may be required.

Furthermore, includes any other work arising out of or incidental to the above, or required of the *Contractor* for the proper completion of the works in accordance with true meaning and intent of the Contract.

1.1.1 Description of the works.

The works that the *Contractor* is to perform involves, inter alia, the following:

Scope of Work:

Safe rigging of pipe sections.

Safe rigging of pipe sections, which must include the crane.

Refurbish of 5 connection point from the four floating connection pieces. This includes:

- Sandblasting and clearing of rust on the connection flanges.
- Supply of connecting bolts and nuts for each section.
- Provision of rubber casket in-between floating pieces.
- Supply of Denso tape to prevent rust on the first initial piece.
- Run all tests required per condition assessment to ensure no leaks in the system during reclamation.
- Install pipe back in the water with new/ maintained chains.
- Install pipe back in the water with new/ maintained seals.
- Install pipe back in the water with new/ maintained reclaim ball.
- Repair grease lines, replace O-rings cord and scraper seals.
- Install pipe back in the water with new/ maintained flanges.
- Install pipe back in the water with new/ maintained flanges.
- Install pipe back in the water with new/ maintained bolts and nuts.
- Undo the floating line from fixed line.

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- Supply and install of messenger line.

Remove the floating mechanism from the floating pipeline including:

- Sand blast and clean all barnacles (including chain, shackles, and swivel ball) and change if required.
- Undo the swivel from the red ball.
- Split the swivel, inspect the faces, and clean.
- Clean all grease line and nipples.
- P2 grease to be used on all section approx. 25 kg.
- Cut the wire at the damaged thimble and renew.
- Bolts to be renewed (cut supply and fit).

Four floating lines:

- Cut and renew bolt as required.
- Make sure bolt are torqued to required spec.
- Gaskets to be provided - (neoprene 10 mm thick) for all sections of pipe.

Testing and Commissioning:

- The contractor to be on site while testing and commission while is being conducted by the vessel.

Handover:

- The project will be deemed as completed once testing and commissioning has been completed. The warranty clause will then effect if required.

1.2 Employer's objectives.

The *Employer's* objective is to employ service provider for the he Refurbish, Repair and Re-installation of Dredging Reclamation Floating Line Pipe located at Reclaim Berth at Port of Richards Bay. This project must be executed within the estimated project duration, budget and scope whilst maintaining the highest quality and safety standards with none or minimal disruptions to existing Port operations *Employer's* commitment to safe and Zero Harm working environment must be always maintained.

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1.3 Interpretation and terminology.

Word or phrase	Interpretation
Accepted by (or to the satisfaction of) the <i>Project Manager</i> , Engineer, or the Architect.	Accepted by the <i>Project Manager</i> or the <i>Supervisor</i> .
A duty, procedure, decision or action of the Engineer or the Architect and of the Superintendent, client representative, Site <i>Supervisor</i> Clerk of Works.	An action of the <i>Project Manager</i> or the <i>Supervisor</i> depending on the context. Clause 14 of the Core Clauses determines what the actions of each are. Either may delegate in terms of Clause 14.2.

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
TNPA	Transnet National Ports Authority
CA	Contract Administrator
PM	Project Manager
PEO	Project Environment Officer
AIA	Authorized Inspection Authority
BBBEE	Broad Based Black Economic Empowerment
EMP	Construction Environmental Management Plan
CD	Compact Disc
CDR	Contractor Documentation Register
CDS	Contractor Documentation Schedule
CRL	Contractor Review Label
CSHEO	Contractor's Safety, Health and Environmental Officer
CHSMP	Contractor Health and Safety Management Plan
CONTRACTOR	Construction Manager
DTI	Department of Trade and Industry
DWG	Drawings
EO	Environmental Officer
HAW	Hazard Assessment Workshop
HAZOP	Hazard and Operability Study
HSSP	Health and Safety Surveillance Plan
INC	Independent Nominated Consultant
IP	Industrial Participation

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IR	Industrial Relations
IPP	Industrial Participation Policy
IPO	Industrial Participation Obligation
IPS	Industrial Participation Secretariat
IRCC	Industrial Relations Co-ordinating Committee
ISPS	International Ship and Port Security
JSA	Job Safety Analysis
CIRP	Contractor's Industrial Relations Practitioner
Native	Original electronic file format of documentation
EMP	Project Environmental Specifications
PHA	Preliminary Hazard Assessment
PIRM	Project Industrial Relations Manager
PIRPMP	Project Industrial Relations Policy and Management Plan
PLA	Project Labour Agreements
PSIRM	Project Site Industrial Relations Manager
PSPM	Project Safety Program Manager
PSSM	Project Site Safety Manager
ProgEM	Programme Environmental Manager
ProjEM	Project Environmental Manager
QA	Quality Assurance
QC	Quality Control
CQA	Contractor's Quality Assurance
QCONTRACTOR	Quality Control Manager
R&D	Research and Development
SANS	South African National Standards
SABS	South African Bureau of Standards
SASRIA	South African Special Risks Insurance Association
EMP	Standard Environmental Specification
SHE	Safety, Health and Environment

SHEC	Safety, Health and Environment Co-Ordinator
SIP	Site Induction Programme
SMP	Safety Management Plan
SSRC	Site Safety Review Committee
PPE	Personal Protective Equipment
HSSE	Health, Safety, Security and Environmental
NRS	National Regulatory Standard
NEC3 ECC	NEC3 Engineering and Construction Contract
SAPS	South African Police Services

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SAT	Site Acceptance Tests
SSA	State Security Agency
HSMP	Health and Safety Management Plan
IP66	Ingress Protection rating for harsh conditions (dust tight, water jet tight)

2 Engineering and the Contractor’s design

2.1 Employer’s design.

2.1.1 The Employer’s design for the works can alter if the Contractor’s suggestions are being approved by the Project Manager. The Project Manager will provide the Contractor with all relevant as-built drawing required to do work.

All work done is to be undertaken accordingly as per the following:

- Works Information and all Annexures thereto.
- Technical Specifications, including Employer’s Specification and Project Particular Specifications.
- Relevant sections of and Variations to the Standardized Specifications (SANS1200).

2.2 Parts of the works which the Contractor is to design.

2.2.1 The Contractor is to design the following parts of the works:

- Required temporary works for executing of the project shall be removed from the Site on Completion of the works. These temporary works shall include site establishment and all construction power, water, sewer, and compressed air required to execute the entire project scope.

2.3 Review and Acceptance of Contractor Documentation.

2.3.1 The Contractor submits documentation as the ‘Works Information’ requires to the Project Manager for review and acceptance.

2.3.2 The Contractor’s documentation shall be issued to the Project Manager under cover of the Contractor’s Transmittal Note indicating all contract references, i.e. Project Name, Project No., Contract No., etc. as well as the Contractor’s Project Document Number, Revision Number, Title and chronological listing of transmitted documentation.

3 Construction.

3.1 Temporary works, Site services & construction constraints.

3.1.1 Employer’s Site entry and security control, permits, and Site regulations.

3.1.1.1 The Contractor must comply with the Employer’s Site entry and Port security control, permits

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and Site regulations. The *Employer* provides coded ID cards to all *Contractors'* employees
for access/egress of personnel, plant, material, and equipment within the Site boundaries.

3.1.1.2 Access must be subject to the Transnet National Ports Authority security requirements and regulations, which states that "access should be obtained for all the *Contractor's* personnel at Permit Office located at Sizakala Truck Staging Facility". The *Contractor* must make a cost and time allowance for obtaining the necessary permits, including labour and transportation within his rates. All *Contractor* personnel must at all times wear their security identity (ID) card so as to be easily identifiable as being employed by the particular company concerned.

3.1.1.3 The *Contractor* must 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 premises.

3.1.2 The *Contractor* complies with the following requirements of the *Employer*:

3.1.2.1 The *Contractor* and his employees must enter and leave the premises only through the main gate(s) and/or checkpoint(s) designated by the *Employer*. The *Contractor* must ensure that employees always observe the security rules of the *Employer* and must not permit any person who is not directly associated with the work from entering the premises.

3.1.2.2 The *Contractor* and his employees must not enter any area of the premises that is not directly associated with their work.

3.1.2.3 The *Contractor* shall ensure the safe passage of *Contractor's* traffic to and around the Site and Working Areas at all times that includes providing flagmen, protective barriers, signage, etc. for protection, direction, and control of traffic.

3.1.3 Restrictions to access on Site, roads, walkways, and barricades.

3.1.3.1 The *Contractor* is specifically excluded from entering the *Employer's* Operational Areas which are adjacent to the Site and Working Areas. The *Contractor* plans and organizes his work in such a manner so as to cause the least possible disruption to the *Employer's* operations.

- The *Contractor* ensures the safe passage of *Contractor's* traffic to and around the Site and Working Areas at all times that includes providing flagmen, protective barriers, signage for protection as well as route and control of traffic.
- The *Contractor* ensures that any of his personnel, labour and Equipment moving outside of his allocated Site and Working Areas does not obstruct the operations of the Port. To this end, access routes are allocated and coordinated by the *Project Manager*.

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- The *Contractor* ensures that all his construction personnel, labour and Equipment remains within his allocated and fenced off construction area.
- All *Contractor's* personnel working within Port must comply with Transnet National Ports Authority's operational safety requirements and be equipped with all necessary PPE, high visibility apparel. A floating apparel must be provided when work is conducted within two meters (behind the yellow line) of the quay wall.

3.1.4 The *Contractor* complies with the following road safety regulations requirements of the *Employer*.

3.1.4.1 Access to the works for *Contractor's* personnel must be through the Port entrances. Movement of construction vehicles must be managed to ensure that other users are not delayed through the operational area. Construction activities must be barricaded to allow safe use of the road areas at all times. No additional payment must be made, and it must be deemed to be included in the rates of the relevant items.

3.1.4.2 The speed limit in most internal roads within the Port of Richards Bay is 40km/h unless otherwise indicated, compliance with these regulations are enforced and must be complied with, access cards/permit will be revoked if found to be non-compliant.

3.1.5 People restrictions on Site; hours of work, conduct and records.

3.1.5.1 There is a permit card access system to enter the Port Area. The *Project Manager* on behalf of the *Employer* will arrange the required access permits and issue them to the *Contractor* free of charge.

3.1.5.2 The *Contractor* keeps daily records of his personnel engaged on the Site and Working Areas (including Sub-Contractors) with access to such daily records available for inspection by the *Project Manager* at all reasonable times.

3.1.6 The *Contractor* complies with the following hours of work for his people (including Subcontractors) employed on the Site.

3.1.6.1 Normal working hours at the Port of Richards Bay are from 08:00 to 16:30, Monday to Friday, Inclusive. For any extended hours or overtime the *Contractor* shall apply in writing and obtain approval from the *Project Manager / Employer*.

3.1.7 Health and Safety facilities on Site.

3.1.7.1 The *Contractor's* personnel must be subject to all safety procedures and regulations as laid down by TNPA Health and Safety Specification.

3.1.7.2 In the event of fire on work site, the *Contractor* must provide the first response to minor fires and inform TNPA personnel of the fire, then vacate the site immediately in compliance to the

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- 3.1.7.3 *Contractor's* evacuation procedure. Any major fires must be immediately reported to the TNPA Fire Department for intervention.
- 3.1.7.4 The *Contractor* must note that smoking must not be allowed on the site within 30m of Building(s), it must only be allowed in designated and clearly marked smoking areas. No open fires must be lit anywhere on site.
- 3.1.7.5 The *Contractor* must be responsible for ensuring the satisfactory and safe condition of all power tools and equipment. All electrically powered equipment must be compliant to OHS Act Standards. The use of electrically powered equipment must be subject to the prior approval of TNPA.
- 3.1.7.6 All Occupational Health and Safety Act and Construction Regulations pertaining to the work being carried out must be adhered to. The *Contractor's* employees must at all times be supervised by a Competent Supervisor appointed in writing in terms of the regulations of the Occupational Health and Safety Act and made aware of his responsibilities. The *Project Manager* reserves the right to judge the competence of the appointed Supervisor for the task being performed before and during the progress of the work.
- 3.1.7.7 The *Contractor* must enter into and execute an Agreement with the *Employer* as provided for under Section 37(2) of the Occupational Health and Safety Act (1993). The Agreement must be in the form of the pro-forma included elsewhere in this document.
- 3.1.7.8 All *Contractor's* staff and labour working within port shall comply with the *Employer's* operational Health and Safety requirements and shall be equipped with all necessary PPE, high visibility apparel and, when working within two meters of the quay wall, floating apparel.
- 3.1.8 The *Contractor* complies with the requirements stated under paragraph 2.3 of C3.1 *Employer's* Works Information.
- 3.1.8.1 The *Employer's* normal operations, maintenance and other construction contracts must continue during the currency of this contract. It is possible, therefore that the site may become congested at times and careful co-ordination is thus essential in order to minimize disruptions to all parties. In the event of conflict between *Contractors* wishing to work in the same area simultaneously, the *Project Manager* must decide the issue based on all the relevant information available at the time of conflict. Alternative site routes for emergency vehicles must be discussed with the *Project Manager* during the compulsory meeting.
- 3.1.8.2 The Contractor provides a three (3) nameboards as per drawing provided. The sites will be identified and instructed by the Project Manager.

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- 3.1.8.3 The nameboard/s must be erected within a month of the commencement date of the contract and must be placed at the positions indicated by the *Project Manager*. Any damage to these boards must be repaired within fourteen days of a written instruction issued by the *Project Manager*. No payment must be made in terms of the contract prior to the erection of the name board.
- 3.1.8.4 The *contractor* must compile a health and safety file which include a COVID-19 plan.
- 3.1.9 Environmental controls, fauna & flora, dealing with objects of historical interest.
- 3.1.9.1 The *Contractor* must take particular note of the environmental requirements contained in the *Employer's Construction Environmental Management Plan*.
- 3.1.9.2 The *Contractor* must take every precaution to avoid damage to vegetation adjacent to the works. Any damage caused is to be repaired at the *Contractor's* expense.
- 3.1.9.3 Storage and stockpiling areas for materials adjacent to the works must be discussed and agreed to with the *Project Manager* on behalf of the *Employer* at the kick-off meeting. Excess material from excavations and waste material must only be spoiled at sites that have been approved by the *Project Manager*. No additional payment must be made, and it must be deemed to be included in the rates of the relevant items.
- 3.1.9.4 Waste must not be stored onsite, all waste material must be stored in the waste receptacles and transported to the landfill site by an approved waste service provider.
- 3.1.9.5 The *Contractor* has no title to all materials arising from excavation and demolition in the performance of the works with title to such materials remaining with the *Employer*. The *Project Manager* must instruct the *Contractor* how to label, mark, set aside and/or dispose of such materials for the benefit of the *Employer* in accordance with ECC3 Clause 73.1.
- 3.1.9.6 The *Contractor* must comply with the *Employer* EMP in the construction of the works. Wherever the *Employer* provides facilities (including, inter alia, temporary power, water, waste disposal, telecommunications etc.) for the *Contractor's* use within the Working Areas and the *Contractor* adapts such facilities for use, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard upon dismantling of such facilities and hand-back to the *Employer*.

RECLAMATION FLOATING LINE PIPE AT RECLAMATION BERTH IN THE PORT OF RICHARDS BAY FOR THREE**ENVIRONMENTAL REQUIREMENTS.**

Environmental Management Plan (EMP) must be submitted by the *Contractor* two weeks prior to the start of work and must be kept on site at all times.

EMP must include:

- Introduction and Company Profile (Outline what the company is about and what activity it intends to do).
- Policy: Environmental policy statement of commitment.
- Roles and Responsibilities, i.e. identify and describe responsibilities for environmental management and reporting including contact details.
- Environmental Awareness and Training, i.e. briefly describe what training initiatives and programs are in place to ensure staff members are aware of the environmental responsibilities.
- Operational activities, these must be site specific and must relate to one or more of the following:
 - Waste minimization and management
 - Water pollution
 - Emergency situations
- Closure: The EMP must commit to a Closure Plan that will identify impacts and outline remediation measures.

WASTE MANAGEMENT

Waste is bound to be generated during the construction of this project, the *Contractor* must:

- Make provision of properly labelled waste receptacles, i.e. hazardous waste, recycled waste etc.
- Disposable waste material must be taken to a permitted landfill site by the qualified waste management company that has Transnet waste disposal license.
- If the waste is contaminated or hazardous it must be taken by Hazardous Waste Management Company to the appropriate dumping site. The *Contractor* must submit proof of correct disposal to the *Project Manager*.
- *Contractor* must ensure that high level of housekeeping is maintained at all times and the site is kept tidy daily.
- *Contractor* must comply with all legal and other environmental requirements including the specification.

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3.1.10 Title to Materials from demolition and excavation.

3.1.10.1 The *Contractor* has no title to all materials arising from excavation and demolition in the performance of the works with title to such materials remaining with the *Employer*. The *Project Manager*

must instruct the *Contractor* how to label, mark, set aside and/or dispose of such materials for the benefit of the *Employer* in accordance with ECC3 Clause 73.1.

3.1.11 Cooperating with and obtaining acceptance of others.

3.1.11.1 The *Employer* shall from time to time appoint an Agent(s) or other *Contractor(s)* to act on his behalf during the entire contract duration and the *Contractor* must cooperate in accepting instructions when required.

3.1.11.2 The *Employer* shall from time to time appoint other *Contractor(s)* to act on his behalf during the entire contract duration, the *Contractor* must ensure cooperation in the execution of various packages as and when required.

3.1.12 Publicity and Progress Photographs.

3.1.12.1 The *Contractor* must not advertise the Contract or the project to any third party, nor communicate directly with the media (in any jurisdiction) whatsoever without the express written notification and consent of the *Project Manager*.

3.1.12.2 The *Contractor* must obtain the permission and approval of the *Project Manager* before erecting any notice boards or using the details of the contract in any advertising media.

3.1.12.3 The *Contractor* must provide a complete digital photographic record of the progress of the construction of the works to the *Project Manager*, monthly as part of the *Contractor's* monthly programme narrative report.

3.1.13 *Contractor's* Equipment.

3.1.13.1 The *Contractor* keeps daily records of his Equipment used on Site and the Working Areas (distinguishing between owned and hired Equipment) with access to such daily records available for inspection by the *Project Manager* at all reasonable times.

3.1.13.2 The *Contractor* complies with the following permissions and restrictions in the use of Equipment as required by the *Employer*.

3.1.13.3 The *Contractor* shall ensure that all Equipment is in a satisfactory mechanical condition for the duration of the contract. No additional payments will be made for the establishment of additional Equipment as it will be deemed to have been included in the *Contractor's* tender rates.

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3.1.13.4 All Equipment arriving on Site shall be inspected by a Competent Person from the *Contractor* prior to arrival on Site who shall certify that the Equipment is in a satisfactory condition. In particular, all hoses, pumps, connections and other items associated with any fluid (oil, hydraulic fluid etc.) shall be inspected and any items in a poor condition shall be replaced with new items. This is to prevent uncontrolled fluid loss due to failure of hoses or clamps. Inspection sheets for all equipment to be maintained in an Equipment Inspection File.

3.1.14 Equipment provided by the *Employer*.

3.1.14.1 No Equipment shall be provided by the *Employer*.

3.1.15 Site services and facilities.

3.1.15.1 For the duration of the Contract, the *Employer* shall provide an area, free of charge, for the *Contractor* to establish his offices, lay down areas, stores, workshops and other *Contractor's* Equipment.

3.1.15.2 The *Contractor* shall provide everything else necessary for providing the Works.

3.1.16 The *Employer* provides the following facilities for the *Contractor*:

3.1.16.1 The *Contractor* must provide the following connections to services within the Site for *Contractor's* use:

- Isolation valve (50mm) and water meter (for monitoring) of construction Potable Water.
- Circuit breaker for construction power at 380 Volts, 3-Phase and Neutral, 50 Hz.
- The *Contractor* must provide a connection to the *Employer's* water borne sewage network. Where no suitable connection to a sewerage system is feasible, portable chemical type toilets may be used.

3.1.17 Facilities provided by the *Contractor*:

3.1.17.1 The *Contractor* must provide facilities for the *Project Manager* and *Supervisor* including the *Contractor's* personnel.

3.1.17.2 The *Contractor* must ensure that this site establishment area is compliant with the relevant safety regulations and restrictions, is clearly sign posted and has a suitable security fence, lighting and the necessary access control gates.

3.1.17.3 All costs for preparation of the site establishment area are for the *Contractor's* account and should be adequately catered for in the Preliminary and General items.

3.1.17.4 The *Contractor* must submit details of the layout of his site establishment to the *Project Manager* for acceptance.

3.1.17.5 The *Contractor* must install a metering device, accepted by the *Project Manager*, immediately downstream of the *Employer's* connections from where he draws services. The *Contractor* must provide the *Project Manager* details of his monthly consumption of potable water and power.

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- 3.1.17.6 The *Contractor* is responsible for his own connection to the Employer's services and for the reticulation of his services from the connection point. The cost of meters, connections, reticulation, and all other usage costs associated with the provision of services are for the *Contractor's* account.
- 3.1.17.7 The *Contractor* must provide the *Project Manager* with a Certificate of Compliance (COC), by an Accredited Person as defined by the OHS Act, in respect of his Construction Power electrical installation. The *Project Manager* must only make construction power available upon receipt of the COC.
- 3.1.17.8 The Construction Manager (or his nominated representative) must conduct routine inspections of the Contractor's construction power reticulation and power tools. If found to be un-safe and/or
- 3.1.17.9 non-compliant with statutory requirements, the electrical power supply must be disconnected until the Contractor rectifies all defaults.
- 3.1.17.10 The *Contractor* must provide, at his cost, a sufficient number of toilets and maintains them in a clean and sanitary working condition.
- 3.1.17.11 The *Contractor* must provide temporary lighting and fencing around every section occupied by him/her during the phased construction of the works. Such fencing must demarcate and secure the construction area. The fencing must be erected before any work starts and is removed only upon completion of the work in that area.
- 3.1.17.12 The *Contractor* must include for all costs for such lighting and fencing, including access control into and out of these restricted areas.
- 3.1.17.13 Wherever the *Contractor* provides facilities (either his own or for the *Project Manager* and/or *Supervisor*) and all items of Equipment, involving, inter alia, offices, accommodation, laboratories, Materials storage, etc., within the Working Areas, then the *Contractor* must make good and provide full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard, upon dismantling of such facilities and items of Equipment.
- 3.1.17.14 Upon completion and within one month of the date of acceptance of the works, the *Contractor* must completely remove from the Site and Working Areas all his Equipment, including the foundations of any structures, stores, office accommodation or any other asset belonging to him and leave the Site and Working Areas in a tidy condition to the satisfaction of the *Project Manager*.
- 3.1.17.15 No excess or discarded materials or Equipment must be buried or dumped within the port boundary.
- 3.1.17.16 Demolition of all temporary structures surfaces etc. must be first approved by the *Project Manager* prior to the work being carried out.
- 3.1.17.17 The *Employer* does not provide any security for the Site and Working Areas. The *Contractor* must provide the same and indemnifies and holds indemnified the *Project Manager* and

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Employer against any claims and actions that may arise out of Site and Working Area security.

- 3.1.17.18 No housing is available for the *Contractor's* employees. The *Contractor* must make his own arrangements to house his employees and transport them to site in a closed vehicle specifically designed for passenger transport (bus or similar) accepted by the *Project Manager*.
- 3.1.17.19 Wherever the *Employer* provides facilities for the *Contractor's* use and the *Contractor* adapts such facilities for use, then the *Contractor* must make good and provide fully reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard upon dismantling of such facilities and hand-back to the *Employer*.
- 3.1.17.20 Unless expressly stated as a responsibility of the *Employer* as stated under 3.1.18 Site services and facilities, all residual requirements for the provision of facilities and all items of Equipment necessary for the *Contractor* to Provide the Works remains the responsibility of the *Contractor*.
- 3.1.18 Existing premises, inspection of adjoining properties and checking work of Others.
- 3.1.18.1 The *Contractor* inspects and surveys the buildings/premises/facilities/various work sites in order to establish the existing conditions and state of repair prior to construction with the *Project Manager*. *Contractor* must take photos of before and after construction and keep records for submission to *Project Manager* whenever the need arises. All these records must be submitted to the *Project Manager* at completion of the project, this shall be deemed to have been included in the relevant rates, i.e. as built-information.
- 3.1.19 Survey control and setting out of the works
- 3.1.19.1 Setting out of the works and survey control is based on Hartebeeshoek 94 (WGS 84 Ellipsoid) co-ordinate system. Levels are given relative to mean sea level.
- 3.1.19.2 The *Project Manager* shall provide benchmarks and survey control points to the *Contractor*.
- 3.1.19.3 The in-survey must be carried out in collaboration with the *Supervisor*, on a 5m grid, with levels generally taken at right angles to the longest length of the area being surveyed. Relevant features, such as existing services and identification of ground survey control stations are also determined.
- 3.1.19.4 On completion of construction (or profiling of the relevant area) to the required tolerances, the *Contractor* must provide the out-survey, which records the final levels on a drawing, for acceptance by the *Project Manager*.
- 3.1.19.5 The *Contractor* must sign the in-survey and out-survey and furnish copies in accordance with the CDS to the *Project Manager* for record purposes.

RECLAMATION FLOATING LINE PIPE AT RECLAMATION BERTH IN THE PORT OF RICHARDS BAY FOR THREE**3.1.20 Excavations and associated water control**

3.1.20.1 The *Contractor* must protect all excavations against any water ingress whether by seepage, rains, storms, floods, or any other means at own cost.

3.1.20.2 The *Contractor* must immediately remove any water found in the excavation by pumping and provide all necessary Equipment (pumps, pipes, etc.) to do so. Water must be cleared in such a way that it cannot seep or flow back into the excavations.

3.1.20.3 Probability of Asbestos Contamination in Excavations:

- The *Contractor* must ensure his personnel are equipped with the necessary PPE and trained to recognize asbestos contamination.
- On encountering asbestos contamination, the *Contractor* must immediately stop all work in the affected area, summon the *Supervisor* and secure the area.
- The *Supervisor* must arrange for a specialist waste disposal *Contractor* to collect, bag, remove and dispose the contaminated material from the excavation.
- The *Contractor* must continue with the excavation of bulk earthworks on receipt of a written instruction from the *Supervisor*.

3.1.21 Underground services, other existing services, cable, and pipe trenches and covers.

3.1.21.1 As a guide only, the *Project Manager* must provide the *Contractor* with drawing(s) showing various known existing underground services for his information. It is however possible that there are other existing services, which are not reflected, and which may affect the works.

3.1.21.2 The *Contractor* must establish the location of the various existing services situated within the Site and Working Areas and record all such information on marked-up drawing(s) which remain available for reference at all times.

3.1.21.3 The *Contractor* shall make every effort to carefully locate all services, whether known or unknown, prior to beginning any works and shall make the necessary arrangements for protection or isolation thereof as necessary. On recovering new services, the *Contractor* must mark them on the drawings and these will become known services.

3.1.21.4 The *Contractor* must exercise due care and attention in carrying out any excavation work to avoid damage or disruption to existing services. The *Contractor* must accordingly consult the *Project Manager* prior to undertaking any excavation work.

3.1.21.5 Should the *Contractor* fail to exercise the requisite care and attention in carrying out the excavation work, the Contractor will be held liable for any claims arising out of damage caused by such excavation.

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3.1.21.6 Where the *Contractor* encounters existing services (e.g. underground services/existing services cables/water and sewer pipes/manholes/stormwater pipes), the Contractor undertakes the following:

- Notify the *Project Manager* and Port Engineer's Office immediately.
- Treat all systems as live, wait for the instruction from *Project Manager*.
- Provide adequate support and or protection to the service(s).
- Mark up and describe the service(s) on a site plan for record purposes.

3.1.22 Control of noise, dust, water and waste.

3.1.22.1 Before moving Equipment onto the Site and Working Areas and commencing operations, the *Contractor* must submit his proposed methods of construction which demonstrate the measures taken to avoid and or reduce any nuisance arising from dust, noise and vibration for acceptance by the *Project Manager*.

3.1.23 Sequences of construction or installation.

3.1.23.1 The proposed general sequencing of the works is as follows:

- Submit and obtain approval of the works and equipment from *Employer* (Project File).
- Obtain Site Access.
- Inspect and determine the quantity of work to be done.
- Prepare and corrosion protect all Steel.
- Manufacture and deliver to site materials.
- Check Quality Control and Issue Warranty of Corrosion Protection system

3.1.24 Giving notice of work to be covered up.

3.1.24.1 The *Contractor* must notify the *Supervisor/Project Manager* in writing of any elements of the works which are to be covered up. This notification must be given in no less than 24 (twenty-four) hours prior to the proposed covering up.

3.1.25 Hook ups to existing works.

3.1.25.1 Every effort will be made to programme the work so that the progress on this contract is not adversely affected by other activities and *Contractors* on site. Only in exceptional circumstances will the *Project Manager* entertain the compensation for standing time or delays

3.2 Completion, testing, commissioning and correction of Defects

The work to be done by the Completion Date

3.2.1 On or before the Completion Date the *Contractor* must have done everything required to Provide the Works including the work listed below which is to be done before the Completion Date and in

RECLAMATION FLOATING LINE PIPE AT RECLAMATION BERTH IN THE PORT OF RICHARDS BAY FOR THREE any case before the dates stated. The *Project Manager* cannot certify Completion until all the work listed below has been done and is also free of Defects, which would have, in his opinion, prevented the *Employer* from using the works and others from doing their work.

3.2.2 The *Contractor* is permitted to carry out the following works after Completion

The Only snag list and rectification of defects identified during retention phase and maintenance period for hot dip galvanizing and/or corrosion protection.

3.2.3 Use of the works before Completion has been certified.

3.2.3.1 None.

3.2.4 Materials facilities and samples for tests and inspections

Not applicable.

3.2.5 The *Contractor* provides the following commissioning activities to bring the works in use in liaison with the *Employer*:

3.2.5.1 The *Contractor* must ensure that all the works specified on the *Employer's* Works Information is completed, functional to bring the works in use for its intended purpose and required documentation on completion is submitted to the *Project Manager*.

3.2.6 Access given by the *Employer* for correction of Defects

3.2.6.1 The *Project Manager* shall arrange for the *Employer* to allow the *Contractor* access to and use of a part of the works which has been taken over which needs rectification of a Defect.

3.2.7 The *Contractor* complies with the following constraints and procedures of the *Employer* where the *Project Manager* arranges access for the *Contractor* after Completion:

- Safety induction and access control as determined by the *Employer*.
- Safety, access control and work procedures as determined by the *Employer*.
- Safety, access control and work procedures as determined by the *Employer*.
- Access must be arranged with the *Project Manager* three (03) days prior to the planned access date.

3.2.7.1 The *Contractor* facilitates the following requirements for training workshops after Completion for the works in use:

3.2.7.2 The *Contractor* must train *Employer's* personnel on the operation of the automated gates.

3.2.8 The *Contractor* performs the following operational maintenance in relation to the works after Completion:

3.2.8.1 The *Contractor* will be liable to maintain the entire system during the full warranty period for the various components to the system from the date of acceptance. All equipment shall be guaranteed for a period not less than twelve (12) months from the date of acceptance from the *Project*

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3.2.8.2

- 3.2.8.3 Manager. The guarantee shall cover all parts, labour, traveling and accommodation costs. Component manufactures' warranty will not be solely acceptable. The guarantee shall cover latent defects in components and manufacture, or incorrect installation of equipment but excludes breakages, misuse, abuse and neglect of any equipment.

4 Plant and Materials Standards and Workmanship

4.1 Investigation, Survey and Site Clearance

- 4.1.1 The *Contractor* carries out the following investigations, i.e. existing facilities, services, servitudes at the Site before commencing with the works.

4.2 Civil Engineering and Structural Works

- 4.2.1 In interpretation, ambiguity or discrepancy between any SANS 1200 Specification (whether standard or written as a particular project specification) contained in the Works Information and the conditions of contract, the conditions of contract take precedence within the ECC contract.

- 4.2.2 In case of any conflict in interpretation, ambiguity or discrepancy between any SANS 1200 Specification (whether standard or written as a particular project specification) contained in this paragraph 1.1.1 of the *Employer's* Works Information and specific statements contained elsewhere in C3 *Employer's* Works Information, the specific statements contained elsewhere shall prevail, without prejudice to the *Project Manger's* express duty to resolve any ambiguity or inconsistency in the Works Information under ECC Clause 17.1.

- 4.2.3 Within SANS 1200 A: GENERAL, the following amendments and interpretations shall apply:

Where the word or expression "*Employer*" is used, read "*Employer*";

Where the word or expression "*Contractor*" is used, read "*Contractor*";

Where the word or expression "*Engineer*" is used, read "*Project Manager*" or "*Supervisor*" as the context requires;

Where the word or expression "schedule of quantities" is used, this is deleted in entirety. Assessment and payment is in accordance with the conditions of contract (and the ECC main and secondary options stated therein);

- 4.2.4 Within SANS 1200 A: GENERAL 2.3 DEFINITIONS, the following apply:

"Acceptable. Approved (Approval)" is interpreted as either a *Project Manager* or a *Supervisor* communication or instruction in relation to Works Information compliance, consistent with the conditions of contract as the context requires;

"Adequate" is deleted. The *Project Manager* notifies the *Contractor* where the *Contractor* has not complied with the Works Information.

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."Measurement and payment" and the further definitions contained within 6.3 c) are deleted.
Assessment and payment is in accordance with the conditions of contract (and the ECC main and
secondary options stated therein);

4.2.5 Within SANS 1200 A: GENERAL 2.6 APPROVAL, the following applies:

"Approval" by either the *Project Manager* and/or the *Supervisor* is without prejudice to ECC Clause
14.1 and, inter alia, ECC Clauses 13.1, 14.3 and 27.1.

4.2.6 SANS 1200 A: GENERAL 2.8 ITEMS IN SCHEDULE OF QUANTITIES, is deleted in entirety.
Assessment and payment is in accordance with the conditions of contract (and the ECC main and
secondary options stated therein).

4.2.7 SANS 1200 A: GENERAL 3.2 STRUCTURES AND NATURAL MATERIAL ON SITE, applies only to
the extent that it is consistent with paragraph 3.1.6 of C3.1 *Employer's Works Information*.

4.2.8 Within SANS 1200 A: GENERAL 7.1 PLANT, the following applies:

Where the word or expression "Plant" is used, read "Equipment".

4.2.9 SANS 1200 A: GENERAL 7.2 CONTRACTOR'S OFFICES, STORES AND SERVICES, applies but
the *Project Manager* resolves any inconsistency with statements included within paragraph 3.1.12 of
C3.1 *Employer's Works Information*.

4.2.10 SANS 1200 A: GENERAL 3.1 SURVEY, applies only to the extent that it is consistent with paragraph
3.1.14 of C3.1 *Employer's Works Information*.

4.2.11 Within SANS 1200 A: GENERAL 3.2 WATCHING, BARRICADING, LIGHTING AND TRAFFIC
CROSSINGS, the following applies:

Where the word or expression "specification" is used, read "Works Information".

4.2.12 SANS 1200 A: GENERAL 3.4 PROTECTION OF OVERHEAD AND UNDERGROUND SERVICES
applies only to the extent that it is consistent with the specific statements made elsewhere in C3.1
Employer's Works Information and in any case and at all times consistent with the conditions of contract.

4.2.13 Within SANS 1200 A: GENERAL 5 TESTING, the following applies:

Where the word or expression "Engineer" is used, read "*Supervisor*".

4.2.14 SANS 1200 A: GENERAL 8 MEASUREMENT AND PAYMENT, is deleted in entirety. Assessment and
payment is in accordance with the conditions of contract (and the ECC main and secondary options
stated therein).

4.3 **Electrical & mechanical engineering works**

4.3.1 Where SANS 10142 and/or SANS 10198 specifications are used within the Works Information, then

RECLAMATION FLOATING LINE PIPE AT RECLAMATION BERTH IN THE PORT OF RICHARDS BAY FOR THREE where the term "Equipment" (or the like) is used with the meaning of installation and items left behind in the works, then please read this term as "Plant" for ECC defined term compliance.

SECTION 2

5 Management and start up

5.1 Management meetings

Regular meetings of a general nature may be convened and chaired by the *Project Manager* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Overall Contract Progress and feedback.	Monthly on a day and time mutually to be agreed.	Port of Richards Bay	<i>Employer, Contractor, Supervisor, Project Manager</i> , including relevant stakeholder's as may be deemed relevant
Contract Risk register and Compensation Events	Fortnightly on a day and time mutually to be agreed.	Port of Richards Bay	<i>Employer, Contractor, Supervisor, Project Manager</i> , including relevant stakeholder's as may be deemed relevant
Site Inspections and quantity measurements	Ad hoc	Port of Richards Bay	<i>Employer, Contractor, Supervisor, Project Manager</i> , including other stakeholder's as may be deemed relevant
<i>Contractor</i> Safety Meetings.	Fortnightly with <i>Contractors</i> . Day and time to be agreed.	Port of Richards Bay	<i>CONTRACTOR</i> (Optional), TNPA Safety Advisors and <i>Contractor</i> Safety Officers and <i>Contractor</i> Management / Supervision.
Safety, Health and Environment Induction Training.	Once off Induction programme prior to commencing any work on site and each time for a new start.	Port of Richards Bay	<i>Employer, Contractor</i> (all personnel to work on site), <i>Supervisor, Project Manager</i> , including other stakeholder's as may be deemed relevant

Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the works. Records of these meetings are to be submitted to the *Project Manager* by the person convening the meeting within five days of the meeting.

All meetings are to be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register are not to be used for the purpose of confirming actions or instructions under the contract as these are to be done separately by the person identified in the conditions of contract to carry out such actions or instructions.

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5.2 Documentation Control

- The document control should be done by means A4 triplicate site diaries and site instructions.
- The following reporting documents shall be provided by the *Contractor*:
- A site diary reflecting daily labour, plant and material information.
- A detailed construction and resource schedule to be provided by the *Contractor*.
- A daily progress report containing:
 - Executive summary (typical one to two paragraphs)
 - Performances to date
 - Problems experienced
 - Corrective actions
 - Priorities for the next week

5.3 Safety risk management

- 5.3.1 The *Contractor* complies with the Occupational Health and Safety Act, 85 of 1993 and Regulations together with Health and Safety requirements contained in the Employer Health and Safety Project Specifications attached hereto as Annexure B of this Works Information:
- 5.3.2 The *Contractor* must perform the works having due regard to the SHE specification.
- 5.3.3 No alcohol is permitted on Site and within TNPA property. The *Employer* has a zero-tolerance policy in this regard and all personnel entering the Site will be required to undergo breathalyser tests.
- 5.3.4 The *Contractor* shall provide all personnel with the required and relevant Personal Protective Equipment (PPE) as detailed in the She specification.
- Although not limited to, the following PPE is the minimum requirement:
 - Hard hat
 - Safety boots with steel toe cap
 - High visibility reflective vests
 - Safety glasses
 - Any other job specific PPE required.
- 5.3.5 The *Contractor* shall provide transport for personnel in a safe manner. Transportation in the back of a light delivery vehicle is prohibited. The *Contractor* may transport workforce by means of buses to the respective areas of work. There is no additional payment for this and shall be deemed to have been included in the tendered rates.

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5.3.6 The *Contractor* must adhere to the following COVID-19 measures in place on site for his employees and visitors at all times

- Hand sanitizers readily available
- *Contractor's* personnel and visitors register
- Employees to wear mask
- Temperature scanner

5.4 Environmental constraints and management

5.4.1 The *Contractor* complies with the following as per the EMP TNPA Port of Richards Bay Specification, attached hereto as Employer EMP Specification.

The *Contractor* performs the works and all construction activities within the Site and Working Areas having due regard to the environment and to environmental management practices as more particularly described within the EMP.

The EMP describes the minimal acceptable standard for environmental management for a range of environmental aspects commonly encountered on construction projects and sets environmental objectives and targets, which the *Contractor* observes and complies.

The overarching obligations of the *Contractor* under the EMP before construction activities commence on the Site and/or Working Areas is to provide an environmental method statement for a particular construction operation at the Site and/or Working Area by the *Contractor* and where requested by the *Project Manager* and to comply with the following:

Where relevant, method statements, as detailed in the EMP shall be provided by the *Contractor*. These include, but are not limited to, the following where applicable:

- Establishment of construction lay down area
- Hazardous and non-hazardous solid waste management
- Storm water management
- Contaminated water management
- Prevention of marine pollution
- Hydrocarbon spills
- Diesel tanks and refueling procedures
- Dust control
- Spoil dumping
- Sourcing, excavating, transporting and dumping of fill material
- Noise and vibration control
- Removal of rare, endemic or endangered species

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- Removal and stockpiling of topsoil
- Rodent and EMP control
- Environmental awareness training
- Site division
- Emergency procedures for environmental incidents
- *Contractor's* SHE Officer
- Closure of construction laydown area

The *Contractor* shall ensure that his management, foremen and the general workforce, as well as all suppliers and visitors to Site have attended the Induction Programme] prior to commencing any work on Site. If new personnel commence work on the Site during construction, the Contractor shall ensure that these personnel undergo the Induction Programme and are made aware of the environmental specifications on Site.

Where applicable, the *Contractor* ensures that he appoints a suitably qualified Subcontractor, to be approved by the *Project Manager*, to undertake the "Removal of rare, endemic or endangered species". This appointment must be completed at least three weeks before commencement of any other work on Site.

The Protection of the Environment Form shall be signed and submitted to the *CONTRACTOR* within 14 days after the Contract Date.

Where required, one of the first actions to be undertaken by the *Contractor* shall be to erect and maintain a temporary fence along the boundaries of the Site and Working Areas as applicable, and around any no-go areas identified on the layout plans, to the satisfaction of the *Project Manager*.

The plant search and rescue (if applicable) must be undertaken and completed prior to any Site clearance or any other construction activity that may damage the vegetation can commence on Site.

During the construction period, the *Contractor* complies with the following:

A copy of the EMP shall be available on Site, and the *Contractor* shall ensure that all the personnel on Site (including Subcontractor and their staff) as well as suppliers are familiar with and understand the specifications contained in the EMP.

Method statements that are required during construction must be submitted to the *Project Manager* for approval at least 20 days prior to the proposed commencement of the activity. Emergency construction activity method statements may also be required. The activities requiring method statements cannot commence if they have not been approved by the *Project Manager*.

Where applicable, the *Contractor* shall provide job-specific training on an ad hoc basis when workers are engaged in activities, which require method statements.

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The *Contractor* shall ensure that any Materials delivery drivers are informed of all procedures and restrictions (e.g. which access roads to use, no go areas, speed limits, noise, etc.) required by the EMP before they arrive at Site and off load any Materials.

The *Contractor* shall be responsible for rehabilitating and re-vegetating all areas to the satisfaction of the *Project Manager* as detailed in the EMP.

The *Contractor* shall clear and clean the Site and Working Areas and ensure that everything not forming part of the works is removed from the Site and Working Areas and that all rehabilitation has taken place in accordance with the EMP.

The *Contractor* complies with environmental inspections and audits.

5.4.2 The *Contractor* complies with the following EMP:

The *Contractor* shall identify the kinds of environmental impacts that will occur as a result of his activities and then prepare separate method statements describing how each of those impacts will be prevented or managed so that the standards set out in this document are achieved. These method statements will be prepared in accordance with the requirements set out in the EMP.

To ensure that environmental issues are taken into account in the establishment of the Site offices and all other facilities on Site.

5.4.3 The *Contractor* complies with the following EMP:

5.4.4 The lines of communication of the various personnel acting on behalf of the *Project Manager* who communicate to the *Contractor* and his keys persons with respect to the EMP will be advised on project kick-off meeting

5.4.5 The *contractor* is responsible (in the context of the EMP only) for environmental management on the Site and Working Areas and reports to the *Project Manager*.

5.4.6 The *contractor* is responsible, inter alia, for day-to-day environmental management on the Site and Working Areas through the implementation of the EMP.

5.4.7 The EO is responsible for conducting day-to-day tasks required to ensure the EMP is correctly implemented at the Site and Working Areas.

The EO specific tasks are:

- Ensure compliance to the EMP and environmental legislation.
- Report any environmental incidents to the Principal *Contractor*.
- Ensure relevant documentation is readily available (Daily, weekly and monthly inspections and tool box talks)

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- Ensure environmental protection (litter control) and awareness.
- Reporting of environmental incidents to relevant stakeholders

5.4.8 The *contractor* submits daily, weekly and monthly checklists in accordance with the EMP to the *Project Manager*.

5.5 Quality assurance requirements

5.5.1 The *Contractor* shall have, maintain and demonstrate its use to the *Project Manager* and/or the *Supervisor* to satisfy the requirements as appropriate) the documented Quality Management System to be used in the performance of the works. The *Contractor's* Quality Management System shall conform to International Standard ISO 9001 (or an equivalent standard acceptable to the *Project Manager*).

5.5.2 The *Contractor* submits his Quality Management System documents to the *Project Manager* as part of his programme under ECC Clause 31.2 to include details of:

- Quality Plan for the contract.
- Quality Policy
- Index of Procedures to be used; and
- A schedule of internal and external audits during the contract

5.5.3 The *Contractor* develops and maintains a comprehensive register of documents that will be generated throughout the contract including all quality related documents as part of its Quality Plan.

5.5.4 The *Project Manager* indicates those documents required to be submitted for either information, review or acceptance and the *Contractor* indicates such requirements within his register of documents. The register shall indicate the dates of issue of the documents with the *Project Manager* responding to documents submitted by the *Contractor* for review or acceptance within the period for reply prior to such documents being used by the *Contractor*.

The Quality Plan means the *Contractor's* statement, which outlines strategy, methodology, resources allocation, QA and Quality Control co-ordination activities to ensure that the works meet the standards stated in the Works Information.

5.6 Programming constraints

5.6.1 The *Contractor* shows on each programme he submits to the *Project Manager*.

5.6.2 The *Contractor* shows on each programme he submits to the *Project Manager*, the requirements of Health and Safety, design and procurement strategies/activities.

5.6.3 The *Contractor* complies with the *Employer's* programme estimated project duration of two (2) months

RECLAMATION FLOATING LINE PIPE AT RECLAMATION BERTH IN THE PORT OF RICHARDS BAY FOR THREE (8) weeks inclusive of holidays when he submits his first programme.

- 5.6.4 Furthermore, the number of days in excess of the number of working days anticipated to be lost due to climatic conditions are already included on the estimated project duration (refer to Table A below). The climate is sub-tropical and rainfall figures for Richards Bay based on historical data (period 1991 - 2002) obtained from the South African Weather Service, Private Bag X097, Pretoria, 0001 are summarized in the table below:

Month	Average Precipitation in mm	Average Number Of Days With Precipitation					
		1.0mm to 5.0mm	5.1mm to 10.0mm	10.1mm to 20.0mm	20.1mm to 50.0mm	50.1mm to 100mm	100.1mm to 900mm
Jan	176.1	2.9	2.8	1.6	2.1	0.4	0.2
Feb	133.3	3.9	1.5	2.0	1.8	0.3	0.1
Mar	226.4	3.8	2.2	1.8	2.0	0.3	0.5
April	127.0	3.3	1.4	1.4	1.8	0.5	0.0
May	67.8	2.5	1.4	1.5	0.6	0.1	0.0
Jun	70.3	1.9	1.4	1.1	0.6	0.3	0.0
Jul	117.4	2.9	1.1	1.1	1.0	0.8	0.0
Aug	46.5	2.6	0.8	0.8	0.4	0.1	0.0
Sept	97.1	2.8	0.7	1.0	1.4	0.2	0.1
Oct	126.0	5.3	3.0	2.0	0.7	0.1	0.1
Nov	190.5	4.0	2.6	2.2	1.5	0.4	0.3
Dec	115.5	5.1	2.1	2.0	1.1	0.3	0.0
TOTAL	1493.9	41.0	21.0	18.5	15.0	3.8	1.3

Table A: Richards Bay average annual rainfall trends

- 5.6.5 The *Contractor* shows on his Accepted Programme and all subsequently revised programmes schedules showing the critical path or paths and all necessary logic diagrams demonstrating sequence of operations.
- 5.6.6 It is incumbent upon the *Contractor* to submit a level-4 schedule/programme clearly showing the project duration and critical path for approval within 14 days of the award of this contract. The schedule/programme is to be discussed and agreed between the *Contractor* and Sub-Contractor's prior to submission, this must be subject to discussion and review by the Project Manager. No claim for an extension of time or acceleration must be entertained by Project Manager due to any failure of the *Contractor* and Sub-Contractor(s) to accommodate one another.

5.6.7 The *Contractor's* proposed construction programme must be in a bar chart form.

5.6.8 The *Contractor* must submit his programme within the time stated in above, to the *Project Manager* for acceptance. The programme must be in the form of a bar chart or any other time-activity form acceptable to the *Project Manager* and must clearly show:

- The proposed rate of progress in order to complete the Works within the required period as tendered, showing the various activities, their durations and proposed re-sourcing levels (major plant and labour) for each element of the Works. Sufficient detail must be provided to enable the *Project Manager* to be able to gauge construction progress.
- The sequence of activities and any dependencies (time or resource related) between them.
- The critical path activities.
- Key dates/information, etc. in respect of work to be carried out or to be provided by others.
- The anticipated value of work to be done during each month i.e. monthly cash flows.
- Other information specifically required by the *Project Manager*.
- The *Contractor* shows on each revised programme he submits to the *Project Manager* a resource histogram showing planned versus actual progress, deviations from the accepted Programme and any other remedial actions proposed by the *Contractor*.
- The *Contractor* must submit programme report information to the *Project Manager* at mutually agreed intervals in addition to the intervals for submission of revised programmes.
- All activities, including establishment on site, trimming, finishing and the completion of all minor ancillary works are to be included in the programme.

NB: The *Contractor's* performance must be strictly monitored on the provided and mutually agreed and accepted programme.

5.6.9 When drawing up her programme, the *Contractor* must, inter alia, take into consideration and make allowance for:

- Expected weather conditions and their effects.
- Known physical conditions or artificial obstructions.
- The accommodation and safeguarding of public, traffic and *Employer's* assets.
- Dealing with, altering and installing services.
- The reasonable requirements and programmes of the *Employer*.
- All other actions required in terms of this contract.

5.6.10 The following details must be submitted together with the programme:

- The number of working hours per day, working days per week, assumed holiday or shut down

periods on which the programme is based.

- The overall labour and major plant resource levels on which the programme is based.

5.6.11 The *Contractor* must base his initial programme of work on the scope of work as described in the project specification and the Bill of Quantities. This programme must be reviewed on a regular basis by the *Contractor* in accordance with changing circumstances, delays and amendments to the work ordered by the *Project Manager*.

5.6.12 Minor revisions to the accepted programme may be introduced from time to time by mutual agreement between the *Contractor* and the *Project Manager*. Should there be any major revision required in the programme, this can only be implemented through a written instruction to the *Contractor* by the *Project Manager* and subsequently a revised programme must be submitted within two weeks of receipt of such an instruction.

5.6.13 It should be noted that it is in the *Contractor's* interest to provide a comprehensive programme giving as much information as possible about the times allowed for the various activities as well as resources or other limitations affecting the programme, since the accepted programme may be used to evaluate any claims in terms of the general conditions of contract for extensions of time.

5.6.14 Acceptance of the programme merely constitutes an acknowledgement by the *Project Manager* that the Accepted Programme represents a contractually compliant, realistic, and achievable depiction of the *Contractor's* intended sequence and timing of construction of the works.

5.6.15 Acceptance of the programme does not relieve the *Contractor* of his duties in the terms of the contract obligations.

5.6.16 Acceptance does not turn the *Contractor's* programme into a contract document or mandate that the works should be constructed exactly as set out in the Accepted Programme.

5.6.17 The *Contractor* must submit to the *Project Manager*, at least three working days before each monthly site meeting copies of the following:

- The contract programme with progress charts and programme graphs updated to reflect the planned versus actual progress to date.
- The *Contractor* shall update the program and supply the progress reports to show actual and expected progress compared to the latest agreed Accepted Program. Progress information may be verified by the *Project Manager* at any stage.
- A summary of progress on site over the month preceding the site meeting. The report must be in the form of a detailed narrative to the contract programme.
- Details of activities running late, indicating what steps have been or must be taken to ensure that the work is completed within the specified time.
- A report on all labour, plant and materials on site.

5.7 Insurance provided by the *Employer*.

5.7.1 Insurance will be provided by the *Employer* as contained in the Contract Data – Part 1, The *Contractor* is required to provide an All-Risk Insurance and this must be included on the tendered rates.

5.8 Contract change management.

5.8.1 No additional requirements apply to ECC Clause 60 series.

5.9 Records of Defined Cost, payments & assessments of compensation events kept by *Contractor*.

5.9.1 The *Contractor* keeps the following records available for the *Project Manager* to inspect:

- Records of design employee's location of work (if appropriate).
- Records of Equipment used and people employed outside the Working Areas (if applicable); and
- Rate breakdown for activities concerned.

5.10 The *Contractor's* Invoices.

5.10.1 When the *Project Manager* certifies payment (see ECC Clause 51.1) following an assessment date, the *Contractor* complies with the *Employer's* procedure for invoice submission.

5.10.2 The invoice must correspond to the *Project Manager's* assessment of the amount due to the *Contractor* as stated in the payment certificate.

5.10.3 The invoice states the following:

Invoice addressed to Transnet National Ports Authority- Port of Richards Bay;
Transnet SOC Limited's VAT No: 4720103177.

6 Procurement.

6.1 People.

6.1.1 Minimum requirements of people employed on the Site

6.1.2 It is encouraged of the *Contractor* to consider employment of locally based labourers (i.e. reside within the boundaries of the City of uMhlatuze) where possible.

6.1.3 The *Contractor* performs the works having due regard and in compliance with the following Act/s:

- Basic Conditions of Employment Act.
- Labour Relations Act.
- Employee Equity Act.
- Workman's Compensation Act.

6.2 Plant and Materials.

- 6.2.1 The *Contractor* provides Plant and Materials for inclusion in the works in accordance with SANS 1200A sub-paragraph 2.1, unless otherwise stated elsewhere in the Works Information provided by the *Employer*. All Plant and Materials are new, unless the use of old or refurbished goods and/or Materials are expressly permitted as stated elsewhere in this Works Information or as may be subsequently instructed by the *Project Manager*.
- 6.2.2 Where Plant and Materials for inclusion in the works originate from outside the Republic of South Africa, all such Plant and Materials are new and of merchantable quality, to a recognized national standard, with all proprietary products installed to manufacturers' instructions.
- 6.2.3 The *Contractor* replaces any Plant and Materials subject to breakages (whether in the Working Areas or not) or any Plant and Materials not conforming to standards or specifications stated and notifies the *Project Manager* and the *Supervisor* on each occasion where replacement is required.

7.3 Tests and inspections before delivery.

- 7.3.1 The *Contractor* must submit to the Supervisor details to certify that all the material complies with the quality as per specification requirements.

7.4 Marking Plant and Materials outside the Working Areas.

- 7.4.1 No Plant and Materials will be paid for before delivery to the working areas.

ANNEXURE A: HEALTH, SAFETY AND ENVIRONMENTAL SPECIFICATION

SAFETY SPECIFICATION

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

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PREAMBLE

WHEREAS specification of the Occupational Health and Safety Act No 85 of 1993 ("the Act") requires that parties have a Specification in writing to ensure compliance by a *Contractor/Supplier* 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.

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 "Contractor" means the Mandatory;
- 1.3 "COID Act" means the Compensation for Occupational Injuries and Diseases Act No 130 of 1993.
- 1.4 "Effective Date" means the date of signature of this Specification by the last party signing hereto;
- 1.5 "Employer" refers to TRANSNET SOC LTD;
- 1.6 "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;
- 1.7 "Parties" means TRANSNET SOC LTD and the *Contractor*, and "Party" shall mean either one of them, as the context indicates;
- 1.8 "Principal Contract" means the appointed Contractor whereby such *Contractor* has to provide goods and or services to TRANSNET SOC LTD.
- 1.9 "Regulations" means regulations promulgated in terms of the relevant legislation.
- 1.10 "Section" means the relevant section of the Occupational Health and Safety Act No 85 of 1993
- 1.11 "Services" means the services to be provided by the *Contractor* to TRANSNET SOC LTD.

1.12 **"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. PURPOSE OF SPECIFICATION.

The purpose of the specification is to assist achieving compliance OHS Act 85 of 1993 as well as Work at Height Regulation 2013.

3. REPORTING.

3.1 The *Contractor* 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*.

4. WARRANTY OF COMPLIANCE.

4.1 In terms of this Specification the *Contractor* 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 *Contractor* further warrants that he and/or his employees undertake to maintain such compliance with the OHS Act and Merchant Shipping Act Without derogating from the generality of the above, nor from the provisions of the said Legislation, the *Contractor* shall ensure that the clauses as hereunder described are at all times adhered to by himself and his employees.

4.3 The *Contractor* 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 *Contractor* 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 *Contractor* shall immediately be provided to the *Employer*.

5.2 The *Contractor* 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 *Contractor* 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 *Contractor* 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 *Contractor* 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 *Contractor* 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 *Contractor* 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 *Contractor* and his appointed responsible persons and employees to have access to the *Employer's* updated copy/copies of the Act.

8. COOPERATION

- 8.1 The *Contractor* and/or his responsible persons and employees shall provide full co-operation and information if and when the *Employer* or his representative inquiries into any occupational health and safety issues concerning the *Contractor*. 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 *Contractor* 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 *Contractor* 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 *Contractor* shall then ensure that his responsible persons and employees are familiar with such mitigation measures.

- 9.2 The *Contractor* 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 *Contractor* 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 *Contractor*.
- 9.4 For every task to be performed including, but not limited to:
- Site establishment – Evacuation & emergency procedures / Rubble & refuse removal / Loading & off-loading.
 - PPE – Issue and control / UEMP.
 - Work Areas – Buildings / Rooftop / High Mask / Access & Egress / Quayside / Vegetated Areas / Use of ladders / Elevated work / Roadwork

10. **COMPENSATION REGISTRATION INSURANCE.**

- 10.1 The *Contractor* 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 *Contractor* shall further ensure that the cover remain in force while any such employee is present on the premises.
- 10.2 The *Contractor* shall ensure that they have insurance cover to the value of 10 million for the duration of the contract.

11. **MEDICAL EXAMINATIONS.**

- 11.1 The *Contractor* 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.

12. **INCIDENT REPORTING AND INVESTIGATION.**

- 12.1 All incidents referred to in Section 24 of the OHS Act shall be reported by the *Contractor* 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.
- 12.2 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.

13. SUBCONTRACTORS.

13.1 The *Contractor* 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:

13.1.1 The *Contractor* shall ensure that training as discussed under appointments and training, is provided prior to the subcontractor commencing work on the *Employer's* premises.

13.1.2 The *Contractor* shall ensure that work performed by the subcontractor is done under his strict supervision, discipline and reporting.

13.1.3 The *Contractor* shall inform the *Employer* of any health and safety hazards and/or issue that the subcontractor may have brought to his attention.

13.1.4 The *Contractor* 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.

14. SECURITY AND ACCESS.

14.1 The *Contractor* and his employees shall enter and leave the premises only through the main gate(s) and/or checkpoint(s) designated by the Employer. The *Contractor* 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.

14.2 The *Contractor* and his employees shall not enter any area of the premises that is not directly associated with their work.

14.3 The *Contractor* 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.

15. FIRE PRECAUTIONS AND FACILITIES.

15.1 The *Contractor* shall ensure that an adequate supply of fire-protection and first-aid facilities are provided on all vehicles that will be transporting Transnet employees.

15.2 The *Contractor* shall further ensure that all his employees are familiar with fire precautions, which includes fire-alarm signals and emergency exits, and that such precautions are adhered to.

16. ABLUTION FACILITIES.

16.1 The *Contractor* shall ensure that an adequate supply of ablution facilities is 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.

17. HYGIENE AND CLEANLINESS.

17.1 The *Contractor* shall ensure that the work site and surrounding 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.

18. NO NUISANCE.

18.1 The *Contractor* 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.

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

19. INTOXICATION NOT ALLOWED.

19.1 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.

20. PERSONAL PROTECTIVE EQUIPMENT.

- 20.1 The *Contractor* 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 requirements of General Safety Regulation 2 (1) of the OHS Act. The *Contractor* shall further ensure that his responsible persons and employees wear the PPE issued to them at all material times.
- 20.2 The *Contractor* shall ensure that his/her employees are provided with appropriate personal protective equipment. These shall include but is not limited to:
- Hand protection;
 - Head protection (Hard Hat must be used in accordance with SANS 1397);
 - No-slippery shoes
 - Service provider uniform
 - Steel toe-capped footwear
 - Hearing protection SABS 1451
 - Wearing of short trousers/pants not allowed
 - Life Jackets (All work carried out within 2 meters from the edge of quay wall)

21. TOOLS, MACHINERY AND EQUIPMENT.

- 21.1 The *Contractor* shall ensure that all the tools, 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 intended to, and that it/they complies/comply with the requirements of Section 10 of the OHS Act.
- 21.2 In accordance with the provisions of Section 10(4) of the OHS Act, the *Contractor* 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.
- 21.3 All equipment such as cherry picker, vehicles shall be in good working order and compliant with legal requirements. Cleaning or repairing of equipment is not permitted in offices areas.
- 21.4 The company is not responsible for the health and safety of a *Contractor's* employees and/or for the loss of the *Contractor's* equipment as a result of any cause whatsoever.
- 21.5 Safety harness to be worn, not safety belts when working on heights exceeding 3 meters.
- 21.6 All tools and equipment must be inspected by the *Supervisor/Safety* before used on site.
- 21.7 All equipment shall be stored in designated areas and not haphazardly.
- 21.8 The *Contractor* shall ensure that all tools and materials are kept under lock and key and an inventory be kept on site.

22. NO USAGE OF THE EMPLOYER'S EQUIPMENT.

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

23. TRANSPORT.

23.1 The *Contractor* shall ensure that all road vehicles used on the premises are in a roadworthy condition and are licensed and insured. The *Contractor* shall ensure that all drivers shall have relevant and valid driving licenses, PDP and the *Contractor* 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.

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

24. CLARIFICATION.

24.1 In the event that the *Contractor* requires clarification of any of the terms or provisions of this Specification, he should take the necessary steps to contact the Risk Manager of the *Employer* to obtain such clarification.

25. DURATION OF SPECIFICATION.

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

26. NON-COMPLIANCE WITH THE SPECIFICATION.

26.1 If the *Contractor/Supplier* fails to comply with any provisions of this Specification, the *Employer* shall be entitled to give the *Contractor/Supplier* 7 (seven) days written notice to remedy such non-compliance and if the *Contractor/Supplier* 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 *Contractor/Supplier* may have in law,

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

26.2 Should *Contractor/Supplier* continue to breach the contract on three occasions, then the *Employer* is authorized to suspend the main contract without complying with the condition stated in the clause above.

27. PERMITS AND LICENCES.

27.1 Any activity that requires license permit or authorization from Transnet National Port Authority or any Government that is prescribed by legislative requirements must be obtained before the commencement of work. The permits issued by TNPA employee will need to be canceled by TNPA employee. The *Contractor* shall comply with

27.2 The requirements of the permit, license or authorization at all times. These permits licenses and/or authorizations include:

- ❖ Operating Cherry Picker
- ❖ Working at Heights
- ❖ Confined Spaces
- ❖ Use of cameras

28. WASTE MANAGEMENT.

Waste may not be disposed of unless the disposal of that waste is authorized by law. The *Contractor* must therefore ensure that all waste that is generated is handled, stored, transported and disposed of in accordance with the requirements of the applicable legislation / local authority.

No waste may be removed from the project site to a waste storage or disposal facility unless that facility has been approved for use by the nominated project management representative.

An adequate number of waste bins and skips must be provided by the *Contractor* and suitable arrangements must be made to ensure that these bins and skis are emptied regularly.

Hazardous wastes must be kept separate from general wastes.

29. HEADINGS.

The headings as contained in this Specification 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.

30. SAFETY, HEALTH AND ENVIROMENTAL FILE.

Principal *Contractor* must, in terms of Construction Regulation 5(7), keep a Health & Safety File on site at all times that must include all documentation required in terms of the Act and Regulations and must also include a list of all *Contractors* on site that are accountable to the Principal *Contractor* and the agreements between the parties and details of work being done. A more detailed list of documents and other legal requirements that must be kept in the Health and Safety File is attached as an addendum to this document.

The Health and Safety File will remain the property of TNPA and/or its Agent on its behalf throughout the period of the project and shall be consolidated and handed over to TNPA.

PICTURES OF DREDGING RECLAMATION FLOATING PIPE



Rusted flanges: Require replacement of nuts and bolts plus denso tape.



Leaking Coupling tomato-head: Require leak fixing, barnacle pressure cleaning, and re-greasing.