PART C3: SERVICE INFORMATION

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ABBREVIATIONS

Avtur	Aviation Turbine Fuel
NEMA	National Environmental Management Act 107 of 1998
NEM:WA	National Environmental Management Waste Act, 2008 (No. 59 of 2008)
NWA	National Water Act (No. 36 of 1998)
OHSA	Occupational Health and Safety Act, 1993 (No. 85 of 1993)
PPE	Personal Protective Equipment
PSIRA	Private Security Industry Regulatory Authority
TLB	Tractor-Loader-Backhoe
TPL	Transnet Pipelines
SANS	South African National Standards
SHER	Safety Health Environment Regulations

DEFINITIONS:

- ***Small Spills**:* Is a spill which is confined within the servitude area or has migrated for an area of not more than 20-meter radius outside the pipeline servitude.
- ***Medium spills**:* Is a spill that has migrated on land outside of the pipeline servitude for an area of up to 100-meter radius from the leak point and has or has not impacted water courses and or wetland.
- ***Large spills:*** Is a spill that has migrated on land outside of the pipeline servitude for an area of above 100-meter radius from the leak point and has or has not impacted water courses or wetlands.

1. TRANSNET PIPELINES BACKGROUND

Transnet Pipelines (TPL), a division of Transnet Limited, owns, operates, and maintains approximately 3 100 km of underground liquid and gas pipelines traversing KwaZulu-Natal, Gauteng, Free State, Mpumalanga, and Northwest Provinces. The pipelines transport various petroleum products such as Crude Oil, Aviation Turbine Fuel (Avtur), Petrol, Diesel, and other partially refined products as well as Methane Rich Gas. Refer to Figure 1 for the pipeline network.

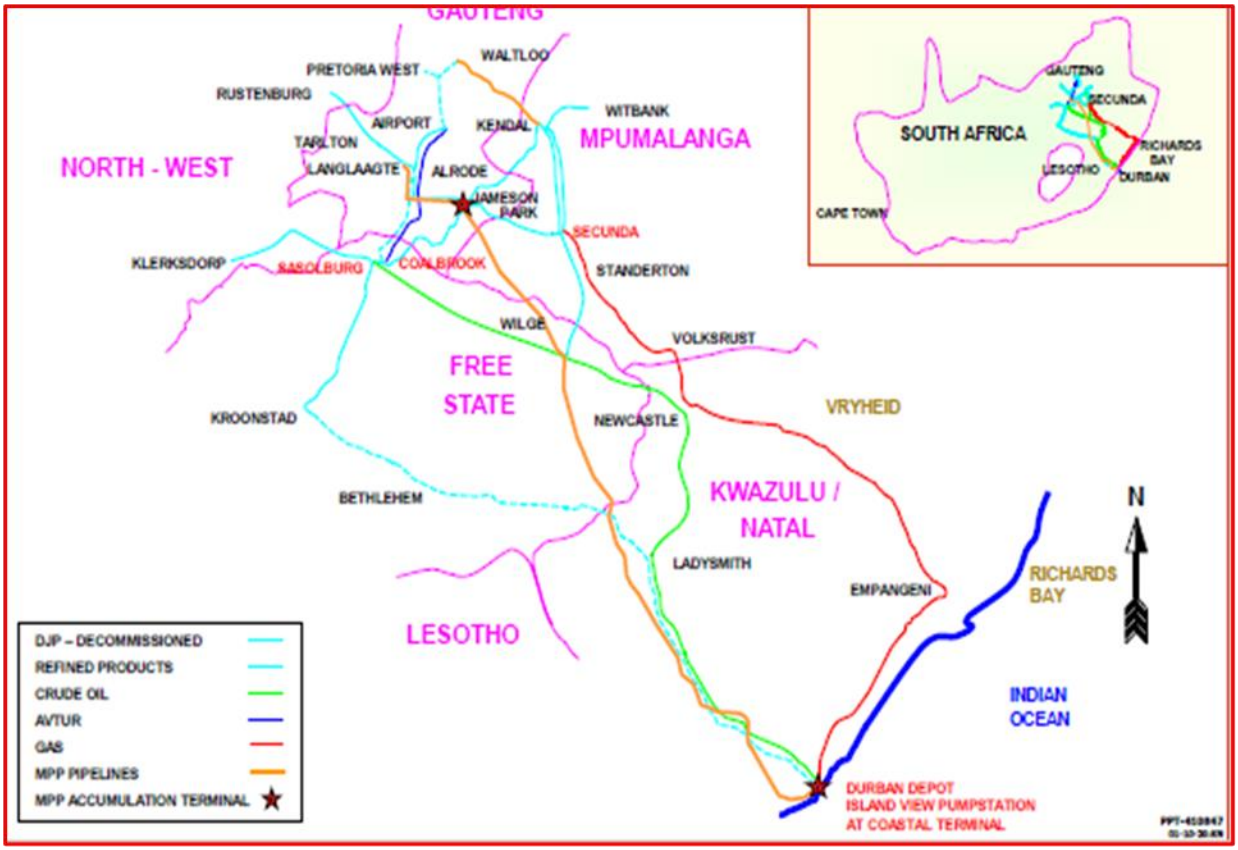

Figure 1: TPL Pipeline Network

The pipeline is an all-welded steel constructed entity which is laid approximately 1 meter below ground and traverses' diverse terrain such as open grasslands, cultivated lands as well as industrial and residential areas.

In addition to the pipeline network, TPL also has a number of operational facilities (depots, pump stations and workshops) located in in Kwa-Zulu Natal Province at the following areas namely: Durban, Mnambithi, Duzi, Umngeni (Westmead-Pinetown), Twini, Fort Mistake, Hillcrest, Hilltop,

Howick, Island View Terminal, Ladysmith, Ladysmith workshop, Mooi River, Newcastle, Pinetown workshop, Fort Mistake and Quagga.

TPL hereafter referred to as the *Employer*, have been experiencing several spill incidents caused by pipeline theft incidents or attempted pipeline theft incidents. The perpetrators try to get access to the liquid fuel product hereafter called product, by tapping into the pipeline either directly or by connecting to it via the pipeline block valves. In the process of the illegal connections being made and the siphoning of fuel, product spills onto the surrounding environment creating contamination.

The service required is for the containment and recovery works, where the end deliverable shall be sites where the spilled free phase product has been contained and recovered from the environment and ensure that the pipe is safe.

The *Employer* intends to appoint a hydrocarbon spill response *Contractor* to contain and recover product spillages and leaks from its facilities, and pipeline network to enable the *Employers* technicians to undertake the necessary repairs to the pipeline and allow operations to resume with minimal disruption. The appointed service provide is also to ensure that the spilled product is recovered from the environment and the site is brought to stability.

The purpose of this document is to outline the Scope of Services n that is required to be conducted by the *Contractor* for the response to hydrocarbon spill incidents and to contain and recover spilled product during an emergency incident. The *Employer* believes that effective and efficient emergency response to hydrocarbon spill incidents and to contain and recover spilled product is critical in limiting the degree and extent of the contamination, the risks posed to human health and the environment and to reduce the cost for Remediation and Rehabilitation.

2. EMPLOYER'S OBJECTIVES

The *Employers* main objective is to effectively and efficiently respond to hydrocarbon spill incidents through containment and recovery of the spilled product from its pipeline network and associated infrastructure for Kwa-Zulu Natal Province facilities (including depots and pump stations). Therefore, the *Employer* desires to enter into an agreement with a *Contractor(s)* who

is experienced and competent in the management, containment, and recovery of spilled petroleum products.

The *Employer* is obliged to take reasonable measures to prevent or remedy significant pollution or degradation of the environment, in terms of environmental legislation. The provision of an emergency response service demonstrates the *Employer's* duty of care and of being an environmentally responsible organization committed to remedying the effects of environmental pollution. The key objectives of this *Services* are as follows:

i. Provide an emergency response to hydrocarbon spill incidents, to contain and recover the spilled product and minimize the negative impacts of an incident to human health, public, safety, property, and the environment.
ii. Manage and contain the costs of reducing the risk to human health and the environment; and
iii. Bring the site to a point of stability.
iv. Ensure that the pipeline is exposed for the repair purposes and the contamination around the pipe is removed to protect the wrapping.

The above objectives are in line with the requirements of the National Environmental Management Act (No. 107 of 1998) (NEMA) and the National Water Act (No. 36 of 1998) (NWA) which provide a framework of how environmental emergency incidents must be managed.

3. SERVICE INFORMATION

The services required is to provide an emergency spill response to hydrocarbon spills and or leak incidents which entail containment and recovery of the spilled liquid product as follows:

3.1. Emergency incident notification and response

The emergency response be based on the initial response to the spill site upon receipt of incident notification.

3.1.1. The *Contractor* will receive the incident notification from the *Employer's Service Manager* to respond to an emergency spill. The notification will include the location of Spill (depot spill or pipeline servitude, including GPS co- ordinates), type of product

spilled, pipeline where the spill incident has occurred, type of breech, i.e., accidental damage, theft related (block valve or hot tap, operational etc.). Any other pertinent information with regards to the spill incident site. The *Service Manager* will issue an instruction with a list of resources and equipment required to respond to the spill onsite. The *Contractor* must ensure that the resources are aligned to the service management's instruction. Any additional resources required onsite must be approved by the *Service Manager* prior to deployment. The appointed *Contractor* must only take instruction from the *Service Manager* unless the *Service Manager* has delegated some of his duties.

3.1.2. The *Employer* will create a WhatsApp group and ensure that all relevant personnel are added on the group. The appointed *Contractor* is expected to provide the expected time of the arrival of resources onsite and update on activities progress as implemented onsite on the WhatsApp group.

3.1.3. The appointed *Contractor* must deploy the emergency response team, resources and equipment as per the *Service Manager's* instruction to the site.

3.1.4. The Emergency Response Team deployment process and the size of the response team mobilization is dependent of the size of the spill, the receiving environment, the lay of the land, etc. The response team mobilization requirement shall be based on the spill incident category and is categorized as follows:

i. "Emergency Response", where the Emergency Response team shall respond to the containment of a small spill incident. A small incident is determined by the *Employer* based on criteria that pertains to the spill.

ii. "Emergency Response", where the Emergency Response team shall respond to the containment of a medium spill incident. A medium incident is determined by the *Employer* based on criteria that pertains to the spill.

iii. "Emergency Response", where the Emergency Response team shall respond to the containment of a large spill incident. A large incident is determined by the *Employer* based on criteria that pertains to the spill.

3.1.5. The *Contractor* must expose (i.e. digging) of the pipe rapture point to expose it, provide the super sucker to drain the product from the pipeline, transport the drained

product to the TPL facility and ensure that the quantity of the drained product reaches the Transnet Pipeline Facility safely in the same volume that was drained.

3.1.6. Create test pits to determine the extent of spill, excavation of cut-off trenches, construction of earth berms, damming and diking, deployment of booms, under over systems, etc.

3.1.7. Recovery of spilled product.

i. Transportation of recovered product to the *Employer's* facilities in a safe and secure manner.

ii. Spilled product recovery team demobilization.

iii. Containment and recovery close out reporting.

3.2 Emergency Response Team Spill Site Orientation and Establishment

i. On arrival onsite, the emergency response team must orientate themselves with the site which entail assessing the extent of spilled products, identify area where containment measures should be deployed.

ii. The *Service Manager* and the *Contractor* will agree on the size of the spill based on the site information and if there is a need to upgrade or downgrade the spill classification.

iii. The objective is to mobilize the necessary resources to contain and stabilize the spill at the soonest, where soonest means the deployment of plant, equipment, materials, personnel, etc. within the specified time frame.

iv. Upon arrival at the spill site, the *Contractor* Incident Commander contact the *Employer Red Hat Man*, and they identify and agree on the plan for the spilled product containment.

v. Emergency Response Team Orientation to include for the following:

- Key role players and their responsibilities such as security, *Employer* Repair Team Lead, etc.
- Logistics and access constraints at the spill site such as access roads, prohibited areas, prohibited access roads, positioning of contaminated soil stockpiles, etc.,
- Site establishment requirements and restrictions, i.e., landowner requirements,

- Identifying environmentally sensitive areas that are not to be disturbed,
- Communication and reporting such as the set up and structuring of a "WhatsApp" group.
- Spilled product recovery and spill site stabilization planning requirements:
- Site establishment, including demarcation of spill site using barrier fencing,
- Delineation of the extents of soil to be excavated around the rupture point to enable the pipeline repair,
- The requirement (if any) for vacuuming of spilled product out of the excavation to enable access to the pipeline repair team to carry out the repair
- Marking out and planning of test pit excavation requirements such as length of excavation, depth of excavation, location of test pits, stockpiling area of excavated material, etc.,
- Marking out and planning of containment techniques e.g., cut-ff trench excavation requirements (positioning dimensions stockpiling area of excavated material, etc.).
- Spill Recovery and spill stabilization planning such as method of recovery, method of access for equipment to reach the product to enable recovery etc. spill recovery logistics, etc.,
- Implementing of containment measures such as damming and diking,
- Use and construction of earth berm plans such as length of berm, height of earth berm, location of berms, drainage provisions, etc.,
- The planning specifics for inflatable and/or fiber booms, sandbags, under/over system, and other such measures if any.

vi. Emergency Response Team site establishment to include the establishment of the following:

- Laydown area demarcation and establishment,

- Site amenities such as, ablutions, mess areas, etc.,
- Access roads,
- Site security fencing where required, fencing around the excavations,
- Plant and equipment laydown requirements etc.,

Figure 2: Snow net fencing on site.

3.3. Spilled Product Containment and Stabilization

On establishment of the *Contractor's* Resources on site and agreeing with the *Employer Service Manager* on the spilled product, site containment and stabilization requirements. The *Contractor* must carry out the spilled product containment and stabilization.

The spilled product containment and stabilization means to put measures in place to prevent the spill from contaminating additional areas and by having established techniques that ensure that spill product is being recovered and taken away efficiently. This is to include the following:

i. For offsite pipeline incidents, exposing the damaged pipeline by the excavating of the soils surrounding adjacent to the rupture point to enable the pipeline repair,

ii. The excavation of cut-off trenches and stockpiling of the contaminated excavated material on an impermeable barrier on site.
iii. The pumping / recovery of spilled product out of the cut-off trench or block valve chamber to enable access to the pipeline repair team to carry out the repair,
iv. The excavation of test pits and the stockpiling of the contaminated excavated material on an impermeable barrier on site as and when required by the Site Assessment Consultant,
v. The pumping / recovery of spilled product out of the cut-off trenches and test pits to stabilize the spill,
vi. The creation of earth berm as and where required,
vii. Damming and diking as and where required.
viii. Inflatable and/or fiber booms, sandbags, under/over system, and other such measures as and where required.

The spill response resource requirements per spill category is to include but is not limited to the major resource items listed in Table 01 below. The type and quantities of resources required onsite are to be agreed upon with the *Employer*. The *Employer* expects the *Contractor* to have all equipment that are in a good working condition.

Table 11: An example of resource requirements per Emergency Response category

Quantity of Resources Required per Spill Category				
Item	**Description**	**Category 1 - Small spill incident**	**Category 2 - Medium Spill**	**Category 3 - Large Spill**
A	Incident Commander	1	1	1
B	Hazmat Responder	1	2	2
C	Hazmat Safety Officer	1	1	2
D	Hazmat Technician	1	2	3
E	Hazmat Assistant	5	15	25
F	Security Guard	2	2	4

G	Light Duty Vehicle (4x4) Double Cab	3	4	5
H	4-ton truck - Wet rate	1	1	2
I	Hydrocarbon Response Trailer	1	1	2
J	14-seater people mover	0	1	1
k	Heavy Duty vacuum truck (Super sucker) incl. operator and	1	1	2
L	Petrochemical Tanker (30 000 liters) wet rate	10	10	10
M	20-ton Excavator incl. operator - Wet rate	1	1	1
N	TLB (4X4) (inc operator)- Wet Rate	1	1	1
0	10 000 litre JoJo tank	1	3	5
P	Portable Guard House	1	1	2
Q	Mobile toilet rental	2	2	4

The Table 1 is provided as an example, the number of resources may vary depending on the size of the pipe that has been impacted. A *Contractor*'s Plan for the containment and recovery shall be prepared and submitted for medium and larger spill and accepted by the *Service Manager*.

3.4. Exposing of the rupture point and draining of the pipeline for repair.

The *Employer* will require the *Contractor* to expose the rupture point as a part of the Emergency Response and Containment services. While the depth of the pipeline below the prevailing ground level varies, on average it is such that the top of pipeline is approximately 1 meter below the ground level. It can however on occasions exceed 4 meters in depth. The response team is to manually (using *Contractor* Hazmat Assistants) or mechanically excavation (using TLB and the

driver supplied by the *Contractor*) the soil surrounding the rupture point to enable pipeline repair based on instructions received by the *Employe*r Incident Commander.

NB: Mechanical excavation within the servitude is to be undertaken upon receipt of a permit from the *Employer,* and under strict supervision by the *Employer*'s Servitude Watcher. This protocol is required to be strictly adhered to, to avoid further damages to the pipeline or its wrapping.

The extent of the excavation will be determined by the *Employer*'s Red Hat Man or the *Service Manager*.

The pipeline repair that is carried out by the *Employer* is to include welding on the rupture point, the removal of the contaminated wrapping and replacement with new wrapping that is to be completed by the *Employer,* amongst the other repairs carried out by the *Employer.*

To ensure that the pipeline is adequately supported during the exposing of the damaged pipeline activity, the *Contractor* may be required to use temporary heavy-duty scaffolding and / or sandbags at approximately 4-5 m intervals as a rule of thumb to support the pipeline to prevent pipeline stresses.

The extent of the services required to excavate the soil surrounding the damaged pipeline to expose the pipeline to make the repair vary from spill site to spill site and even though this activity is highly variable, that is dependent on the lay of the land, the volume of product spilled, the travel of the spilled product, the receiving environment,

The *Contractor* must also assist with the draining of the pipeline from the leak point or block valve as required by the *Employer*'s Red Hat Man onsite. The *Contractor* must provide tanker to transport the drained product to the TPL facility as and when requested. It's the responsibility of the appointed *Contractor* to ensure that the drained product reaches the TPL facility, by ensuring that all necessary security measures are implemented.

The *Service Manager* may on an as and when required basis request the *Contractor* to provide clean soil and padding sand to backfill the pipeline excavation to ensure the safety of the pipe and ensure that the contaminated soil is disposed at an approved disposal site. Padding and bedding sand specifications/requirements for wrapped steel pipelines are attached as **Annexure A.**

3.5. Excavation of Test Pits

The *Contractor* is required to excavate test pits downstream of the spill origin to determine the extent of migration of the product into the sub-surface soil and ground water. The location and number of test pits to be excavated is dependent on the receiving environment, the volume of product spilled, the migration of the spilled product. The test pits are required for determining if there is a need for cut-of trenches and for contamination plume delineation by the TPL appointed site contamination assessment specialist.

3.6. Excavation of Cut-off Trench(es) where required

The *Contractor* is required to excavate cut-off trenches to contain the migration of the spilled product thus there may be a requirement to excavate multiple cut-off trenches for the technique to be effective.

Figure 3: A typical cut-off trench

The dimensions and number of the cut-off trenches will vary from spill site to spill site and even though this activity is highly variable, that is dependent on the lay of the land, the volume of product spilled, the travel of the spilled product, the receiving environment, etc. It is anticipated that this activity will be included within the stipulated time constraint for the identified category of spill incident, i.e. the requirement to excavate the numerous cut-off trenches will be included

in the stipulated time allocation for the resources that are deployed as a part of the category of spilled product containment services.

3.7. Creation of earth berms where required

Product containment may involve the need to construct earth berms to prevent run-off water such as clean storm water from entering the impacted area. If required, earth berms are to be constructed in accordance with the "lay of the land" in achieving the objective of the creation of earth berms. The earth berms are to be created in a manner that they serve as a stationary barrier built alongside the spill incident boundary that provides physical separation to the neighboring environment along its length from the spill incident site as is shown in Figure 3 below.

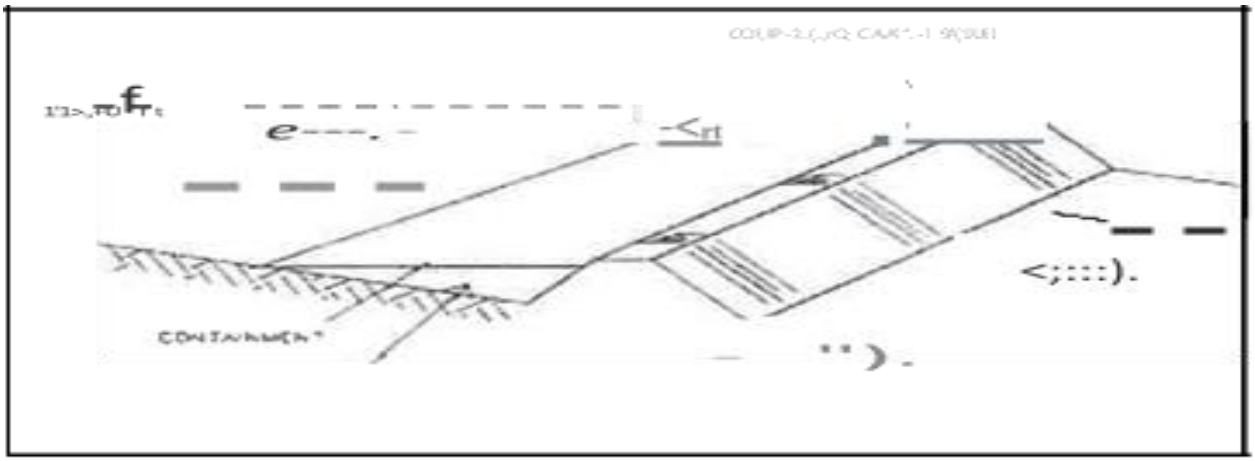

Figure 4: Diagram of earth berm

The extent of the services required for the construction of earth berms will vary from spill site to spill site and even though this activity is highly variable, that is dependent on the lay of the land, the volume of product spilled, the travel of the spilled product, the receiving environment, etc. it is anticipated that this activity will be included within the stipulated time constraint for the identified category of spill incident. i.e., the requirement to construct earth berms will be included in the stipulated time allotted for the resources that are deployed as a part of the category of spilled product containment services.

3.8. Damming and Diking

Product containment may involve damming and diking in instances when the spill reaches water courses. Diking involves the placing or constructing of a physical barrier on the ground downstream of the spill origin, and damming involves placing or constructing of a physical barrier in a waterway to prevent or reduce the number of contaminants from flowing downstream from the spill origin.

The creation of containment ponds and dikes on waterways may require a formal instruction by the *Employer* to commence with damming and diking. Approval to work on waterways may require the *Employer* to obtain approval and or acceptance from the Authorities should damming and diking, be required.

The extent of the services required for the construction of dams and dikes varies from spill site to spill site and even though this activity is highly variable, that is dependent on the lay of the land, the volume of product spilled, the travel of the spilled product, the receiving environment, etc., It is anticipated that this activity will be included within the stipulated time constraint for the identified category of spill incident, i.e. the requirement to construct dams and dikes will be included in the stipulated time allotted for the resources that are deployed as a part of the category of spilled product containment services.

3.9. Deployment of oil booms, under/over system, and other such measures

In instances where the spill response requires containment and recovery from water courses, the *Contractor* is expected to institute the containment technique may involve the deployment of inflatable and/or fiber booms, under/over system, and other such measures.

The extent of the services required for the deployment of booms e.g. inflatable booms, fiber booms, or permeable booms, under / over systems and other such measures will vary from spill site to spill site and even though this activity is highly variable, that is dependent on the lay of the land, the volume of product spilled, the travel of the spilled product, the receiving environment, etc., it is anticipated that this activity will be included within the stipulated time constraint for the identified category of spill incident. i.e., the requirement to deploy booms,

under/over system and other such measures will be included in the stipulated time allotted for the resources that are deployed as a part of the category of spilled product containment services.

3.10. Recovery of Spilled Product

As a part of the spill site stabilization, spilled product recovery is essential. The *Contractor* is to use specialized hydrocarbon equipment, material, and consumables to recover as much of the free phase spilled product as possible to obtain spill site.

The *Contractor* is to carry out the product recovery in the most cost-effective way.

The recovery of the spilled product involves the use of specialized equipment that recover the contaminated water / spilled product mix for temporary storage into adjacent hydrocarbon storage tanks. Such equipment may include:

- Heavy duty vacuum trucks (Super suckers),
- Handheld pumps, shovels, etc.,
- Skimmers (disk skimmers, mop skimmers, floating skimmers, etc.),

Temporary storage tanks (e.g. JoJo tanks, flow bins) may be used to allow for the recovered (presumably contaminated) product to stand for the separation of the product from the contaminants (water, soil, etc.).

Figure 5: Super sucker

Figure 6: Floating Skimmer

Figure 5 and 6 above show pictures of a Super sucker and a floating skimmer.

The recovered product is to be accumulated in temporary hydrocarbon storage tanks and once the recovery process is completed or there is a large enough volume of recovered product the product can be moved from the spill site to the identified *Employer* facilities or if its contaminated it can be disposed of at an approved wastewater treatment facility.

The extent of the services required for the recovery of spilled product will vary from spill site to spill site.

Note: The completion of the containment and recovery scope is when there is no presence of free phase product from the spill incident site that could be recovered.

3.11. PROGRESS REPORTING

i. Monthly meeting will be held with the *Contractor*.
ii. Progress report to include for the following:
iii. Activities completed for the month,
iv. Equipment and materials mobilized, demobilized and remaining on site,
v. Volume of product recovered,
vi. Volume of product transported to the *Employer*'s delivery depot.
vii. Cumulative totals for the spill site to date of product recovered and transported thus far.

In addition, there shall be requirement to provide daily progress reports to the *Employer*'s personnel via WhatsApp groups set up for the spill site.

3.12. PRODUCT CONTAINMENT AND RECOVERY CLOSE-OUT REPORTING

On conclusion of the product containment and recovery activities at the spill site the *Contractor* is to compile an end of job report. The report is to include for the following:

i. Summary of the major activities that were completed at the spill site,
ii. Key stakeholder engagement events,
iii. Cumulative totals for the spill site to date of product recovered and transported,
iv. Lessons learnt from the site,

v. Items that remain open or was not completed that needs to be brought to the attention of the *Employer* or others,
vi. Key Findings and recommendations.

Currently, The *Employer* experiences on average 1 spill incidents per month and it is anticipated that this will gradually decrease over the contract period. This is however forecast that is to be used as a guide to assist the *Contractor* from a planning perspective and cannot be construed to be contractually committing.

The *Contractor* is anticipated to submit to the *Service Manager* a project plan for the medium and large spills that will outline the activities and timelines for completion. This plan must be compiled whilst the work is in progress onsite, and the *Service Manager* will determine the due date for the submission of the plan for the review and acceptance/approval. This plan will be a live document that will require updates as the work progress onsite.

3.13. SCOPE DEPENDENCY AND EXCLUSIONS

There are dependencies that exist on the *Contract* where there are certain activities within the control of other's that are integral to the completion of the Services. These items are considered as project dependencies that contribute to the contract objectives, but these items are costed, resourced, and managed outside of the control of the *Contractor.*

These items are listed as follows:

i. The *Employer* Operations Response - The *Employer* Operations Response Team that responds to the spill incident as per the *Employer's* Emergency Response Plan is the first step in the process and while forming part of the Project is not part of the *Contractor* Scope.
ii. The repair and rewrapping of the damaged pipeline - The repair and rewrapping of the damaged pipeline forms a part of the process and is carried out by the Pipeline Integrity Section of the *Employer*'s Technical Department and is not within the scope of the Contract.

iii. Landowner Engagement - Landowner engagement is not a part of the contracted scope, and any landowner matters that may arise during project execution are to be directed to the *Employer* Incident Commander.

iv. Communications with the Department of Water Affairs, Department of Environmental Affairs is not within the scope of the contract of the appointed *Contractor*.

v. Communications with the community affected by the spill is not within the scope of the contract.

4. SERVICE LEVEL REQUIREMENT

The performance levels or effective service response of the *Contractor* will limit the total cost of the spill incident that shall be borne by the *Employer* and thus the *Contractor's* response is of paramount importance as a delayed response by the *Contrac*tor will result in additional consequential costs to the *Employer*. The response time in this instance means the arrival of the critical resource onsite which is the first responder, TLB and the Super sucker.

The service level tables shown in table 2,3,4,6 and 7 will be used to apply low performance damages and is to be determined by the time taken for the *Contractor* to respond to the spill incident. The time of response is to be measured as the difference in time between the incident notification and the *Contractor's* arrival on site. The following tables are for the service requirements for the arrival of the first responder, super sucker and TLB.

Table 2: Service level table on the arrival of the Incident commander, First hazmat responder, Hazmat technician, Five hazmat assistants, Safety officer, Booms and absorbents onsite after initial incident notification during the normal working hours (i.e. 7H00 AM -17H00 PM)

No.	**Response times from the initial incident notification**	**No. of hours for arrival onsite from the time of initial incident notification**	**Cost damages per hour or part thereof for arrival onsite**
A1.	</= 2.5 hours from the time of initial incident notification	In less than 2.5 hours	Nil
A2.	>2.5 hours from the time of initial incident notification	Arrival onsite in later than 2.5 hours	R1,076.00

Table 3: Service level table on the arrival of the Incident commander, First hazmat responder, Hazmat technician, Five hazmat assistants, Safety Officer, Booms and Absorbents onsite after initial incident notification during the normal working hours (17H00 PM -07H00 AM)

No.	**Response times from the initial incident notification**	**No. of hours of arrival onsite from the time of initial incident notification.**	**Cost damages per hour or part thereof for arrival onsite**
A1.	</= 3.5 hours from the time of initial incident notification	In less than 3.5 hours	Nil
A2.	>3.5 hours from the time of initial incident notification	Arrival onsite in later than 3.5 hours	R1,076.00

Table 4: Service level table: Arrival of super sucker onsite after the initial incident notification during the day (i.e. 7H00 AM -17H00 PM).

No.	Response times from the initial incident notification	No. of hours of arrival onsite from the time of initial incident notification.	Cost damages per hour or part thereof for arrival onsite
A1.	</= 4.5 hours from the time of initial incident notification	In less than 4.5 hours	Nil
A2.	>4.5 hours from the time of incident notification	Arrival onsite in later than 4.5 hours	R1,300.00

TABLE 5: Service Level: Arrival of the Super Sucker onsite after the initial incident notification during after-hours incidents (17H00 PM -07H00 AM).

No.	Response times from the initial incident notification	No. of hours for arrival onsite from the time of initial incident notification.	Cost damages per hour or part thereof for arrival onsite
A1.	</= 6 hours from the time of initial incident notification	In less than 6 hours	Nil
A2.	6 hours from the time of initial incident notification	Arrival onsite in later than 6 hours	R1,300.00

Table 6: Service Level: Arrival of TLB including the driver onsite after the initial notification for incidents during the day (i.e. 7H00 AM -17H00 PM).

No.	Response times from time of initial notification	No. of hours of arrival onsite from the time of initial incident notification.	Cost damages per hour or part thereof for arrival onsite
A1.	</= 5.5 hours from the time of initial incident notification	In less than 5.5 hours	Nil

A2.	>5.5 hours from the time of initial incident notification	Arrival onsite in later than 5.5 hours	R600

Table 7: Service Level: Arrival of the TLB including the driver onsite after the initial incident notification during after-hours incidents (17H00 PM -07H00 AM).

No.	**Response times from the initial incident notification**	**No. of hours for arrival onsite from the time of initial incident notification.**	**Cost damages per time of arrival onsite**
A1.	</= 7 hours from the time of initial incident notification	In less than 7 hours	Nil
A2.	>7.5 hours from the time of initial incident notification	Arrival onsite in later than 7.5 hours	R600.00

5. ROLES AND RESPONSIBILITIES

5.1. THE *EMPLOYER* (TPL)

The *Employer's* roles and responsibilities is to include for but not limited to the following:

i. Activate the *Employer's* Contingency and Emergency Response Contractor for spillages.

ii. Conduct the initial high level site assessment to evaluate the extent of the spillage.

iii. Arrange access permit for Island View.

iv. Communicate with various stakeholders as identified in the Emergency Plan.

v. Appoints an *Employer* Incident Red Hat to supervise, monitor and coordinate onsite activities for the pipeline repairs.

vi. Appoints a *Service Manager* to monitor the performance of the *Contractor* and issue instructions.

vii. To appoint the servitude supervisor the excavations along the pipeline to ensure that there is no damage to the pipe.

viii. Liaise with relevant stakeholders including the authorities, landowners, etc.

ix. Issue a Closure Certificate on satisfactory completion of the containment and recovery activities.

5.2. THE CONTRACTOR

The *Contractor's* roles and responsibilities is to include for but not limited to the following:

i. The *Contractor* must respond to the emergency incident upon being notified of the incident by the *Service Manager*. The *Contractor* must be at the incident site with the necessary resources to implement containment and recovery measures within specified timelines as per the service level in this document after receiving the call from the *Employer's Service Manager*.

ii. The *Contractor* must report, communicate, and take instruction from the *Employer* the *Service Manager*.

iii. The *Contractor* must advise the *Service Manager* of containment and recovery mitigation measures to be implemented in a safe manner.

iv. The *Contractor* must comply with instructions / directions issued by *Service Manager*.

v. The *Contractor* must employ and deploy all means to contain surface runoff of fuel product and to recover product on the land, within a watercourse and on the groundwater as soon as possible after arriving at the site.

vi. The *Contractor* must ensure that he/she has all the required tools and equipment to undertake the work to ensure that the risk posed to human health and the environment is reduced as far as is reasonably practicable.

vii. The contractor must ensure that the tankers are available to collect the drained product from the pipeline and ensure that the product is transported safely (i.e. the drained quantity must reach the Transnet Facility with no loss due to other factors)

viii. The *Contractor* must manage and control his/ her staff and equipment on site.

ix. All tools, plant and equipment must be maintained and be in good working order. Tools, plant and equipment that break down during the provision of the services must

be replaced by the contractor as soon as it is practicable and at no additional cost to the *Employer*. The *Employer* will not be held liable for such damages.

x. The maintenance, repair and replacement of tools, plant and equipment during the contract period is for the account of the *Contractor*.

xi. The *Contractor's* staff and equipment that is not being utilized and must be removed from the site if they are surplus to requirements.

xii. The contractor must ensure that the ablutions are delivered onsite within 4 hours after notification during the normal working 8 hours during after working hours.

xiii. The *Contractor* must ensure that the required complement of staff is always on site to provide the services. Where the full complement is not available the *Contractor* must ensure that the person/s are immediately replaced by a suitably qualified and experienced person.

xiv. All the *Contractor's* staff must be trained, qualified and competent in the undertaking of the work to which they are assigned. Responders must be trained and have the skills and expertise to supervise the staff and deployment of the equipment as well as to operate the equipment. Responders and Supervisors must have the training and skills to work in various conditions, e.g., working in watercourses, working in confined spaces, etc.

xv. The *Contractor* must maintain a Daily Site Diary that records all persons and equipment on site as well as weather conditions.

xvi. The *Contractor* must complete a manifest (dangerous goods declaration) and a transfer or upliftment record to record the volume of fuel recovered, volume of fuel in the tanker, time of departure from the site, its destination and time of arrival of the vehicle on its return to the site.

xvii. The *Contractor* must also maintain a "Seal Register" which lists all the seals used on the tanker before departure from site and their unique identification numbers. All these documents are to be signed off by the *Employer* Representative onsite before departure from site and the receiving Depot Manager or Supervisor upon arrival at the destination.

xviii. Waste manifests and Safe Disposal Certificates for hazardous waste disposed in line with the National Environmental Management Waste Act, 2008 (No. 59 of 2008) (NEM:WA) Waste Classification and Management Regulations (2013).

xix. The *Contractor* must implement measures to prevent ignition sources.

xx. The *Contractor* must report accidents, incidents and near misses to the *Employer* Incident Commander and the *Service Manager*. All accidents, incidents and near misses must be investigated and corrective and preventative measures implemented. In case of a fire incident, the *Contractor* must hand over the site to Local Fire and Emergency Services and can only return to the site once the "All Clear" has been declared by the Emergency Services. Once containment has been achieved and the free phase product has been recovered, the *Service Manager* and the *Contractor* will agree that the site can be closed, and all parties will sign off on the Closure Certificate.

xxi. All machinery, tools and equipment provided by the *Contractor* must comply to the safety codes for working in a hazardous flammable and explosive environment.

xxii. The *Contractor* must work with all parties on the site.

xxiii. The Contractor must ensure that the Construction Regulations are complied with where applicable.

xxiv. The *Contractor* shall undertake all work as instructed by the *Employer* such as, but not limited to, erecting livestock and/or safety fencing, cleaning of infrastructure and buildings, etc.

xxv. Reporting requirements as required by authorities in terms of NEMA, NWA, OHS and other requirements.

xxvi. Attend meetings and / or provide information or input into engagements with the *Employer* and other stakeholders including but not limited to the authorities, affected landowners, interested parties, the *Employer's* insurer and loss adjuster, etc. as and when required.

6. GENERAL REQUIREMENTS

6.1. The Payment for equipment and resources

The payments are based only on the hours worked for the day. All other hours where physical work has not been carried out, e.g. breakdown of equipment etc, are not payable as the Equipment and Resources are deemed to be "off hire" for those periods. Travelling time of staff/employee from the Contractor's Depot or Accommodation to the site is not considered as working time.

Working Hours: Normal working hours are from 7:30am to 5pm, Monday to Friday, inclusive of one hour lunch break which is not claimable. The hours worked outside of the Normal working hours will be deemed as Overtime hours or After Hours.

6.2. *Contractor* general safety requirements for health and safety

Without derogating from other provisions of the Agreement, the *Contractor* shall at its cost and as part of the Services:

i. At all times comply with/ensure strictest adherence to the Act in accordance with and implement the provisions of the Act, Legislation, SHER Standards and any other Safety, Health and Environmental performance requirements and standards applicable to the provision of the Work.
ii. Undertake prompt corrective actions to address and rectify any non-compliance with any obligation or requirements under the Agreement.
iii. Implement and maintain the SHER Management System which shall be compatible with the management systems applicable to the *Employer*, it being further agreed that the *Contractor* shall take all such steps as may be reasonably necessary to ensure that it at all times retains the certification of the SHER Management System for the period that the Agreement is in force.
iv. Implement and comply with the Responsible Care Management Practice Standards.
v. Assist and co-operate with the *Employer* in conducting site inspections and/or compliance/performance/assessment audits, and it being further agreed that the *Contractor* will, at its expense and within the reasonable time specified by *Employer*, undertake the necessary reasonable corrective measures to address any findings.
vi. Implement emergency response containment and recovery, based on legal requirements and standards, reasonably acceptable to the *Employer* and relevant purposes, pertaining to any Incident associated with any activities conducted under

the Agreement or involve the Goods, failing which the *Employer* may initiate or undertake the measures and recover the costs associated in doing so from the *Contractor*, provided that the *Employer* must approve emergency response services obtained by the *Contractor* for Incident management purposes.

vii. Identify, monitor, mitigate, contain any pollution, contamination, or degradation of the environment caused by a spill or release of the Goods, as may be required by the Act, Legislation, SHER Standards or any other specific obligation hereunder, risk to human health or the environment, or a directive from a government authority, to a standard reasonably acceptable to the *Employer* and relevant authorities, failing which the *Employer* may initiate or undertake the measures and recover the reasonable costs associated in doing so from the *Contractor*, in the event of an Incident, accident, spill or emergency;

viii. Immediately or as soon as reasonably possible after becoming aware thereof, notify the *Employer* and the relevant Emergency Management Team.

ix. Report to the relevant authorities as required by the Act and Legislation.

x. Provide copies of all such reports to *Employer* upon request.

xi. Undertake a root cause analysis as soon as reasonably possible after the occurrence of the Incident, accident, or emergency, based on or in accordance with the root cause analysis guidelines of *Employer* and report thereon to the *Employer.*

xii. Dispose of any waste or hazardous waste (including contaminated soil/substances or any discarded matter) in a responsible manner and as required by the Legislation.

xiii. The *Contractor* must ensure that there are no ignition sources in the vicinity of the spill site.

xiv. The *Contractor* must ensure that emergency preparedness controls are available, implemented and tested.

xv. The *Contractor* must ensure that identified personnel receive the training required in terms of the needs identified.

xvi. The *Contractor* must conduct and/ or arrange a site-specific risk assessment to Promptly, upon becoming aware thereof, inform *Employer* of: any suspension, revocation, modification or amendment of any approval, authorization, license, permit, certificate, or approval; any actual or potential claims, lawsuits, prosecutions,

directives or notifications pertaining to the *Contractor,* the Transport of the Goods or any activities performed under the Agreement.

xvii. The *Contractor* must ensure that the site is kept clean and tidy and that fire breaks are cut if required.

xviii. The *Contractor* must appoint a designated Safety Representative as per the requirements of the OHSA.

xix. The *Contractor* must ensure that emergency preparedness controls are available.

xx. The *Employer* together with the *Contractor* and Emergency Services will assess the situation on site to ensure safety of personnel as well as the safety of the public, property, and equipment on site.

xxi. The *Contractor* must conduct and/ or arrange a site-specific risk assessment to identify hazards and environmental aspects and compile appropriate mitigation measures.

xxii. The *Contractor* must arrange that the relevant signs and notices (e.g. emergency escape routes, assembly points etc. identify general health and safety emergency areas.

xxiii. The *Contractor* must ensure that appropriate Personal Protective Equipment (PPE) is always worn whilst on site.

xxiv. The *Contractor* is to ensure all employees are equipped with the required PPE to carry out their duties.

6.3. *Contractor* Compliance File Requirements

The appointed *Contractor* will furnish the *Employer* with the required Health and Safety file for approval prior to commencement with the Contract. Once the *Contractor's* Health and Safety file is approved, a site access certificate will be issued. The *Employer* will conduct induction for the *Contractor's* employees, only then *Contractor* employees will be eligible to work on a Transnet Pipelines Facilities.

The required documentation includes, but not limited to the following:

i. Site specific organogram of reporting structure.

ii. *Contractor* Scope of Services or *Service Information.*

iii. A Valid letter of Good Standing with the Compensation Fund.

iv. Proof of Public Liability Insurance / Environmental Impairment Insurance.

v. Mandatory Agreement - In terms of section 37(2) of the OHSA, *Contractor* to sign an agreement with Transnet Pipelines.

vi. Management Plans – e.g. approved Health and Safety Plan, Environmental Management Plan, *Contractors* Emergency Response Procedures that sets out its procedures for fire, spill response, explosion, and other relevant emergency response procedures.

vii. Method statement, safe work procedures to be generated for each specific task to be performed on the contract/ project i.e., excavation, transportation and disposal of waste, TLB operations, etc.

6.4. Induction

Employee induction packs shall include the following documents:

i. Completed Employee Dossier.

ii. Certified copies of IDs not older than three months.

iii. Work permits for foreign nationals.

iv. SAPS Police clearance certificate (SAPS 365), not older than six months.

v. Certificate of medical fitness for all - issued by Occupational Health Practitioner.

vi. Proof of Competence i.e., Drivers, Operators of Cranes, TLB, Excavator, Gas Detection Equipment, training in handling hydrocarbon spillages, etc. Certified copies not older than three months.

vii. Legal liability and HIRA training of Supervisors and Managers.

6.5. Registers

Inspection checklists applicable to this project e.g.

i. Vehicle Inspection Register.
ii. Excavation Inspection Register.
iii. First Aid Kit Inspection Register.

iv. PPE Issue Register.
v. Hand Tools Inspection Register.
vi. TLB Inspection Register.
vii. Compressor Inspection Register.
viii. Calibration Certificate of the Gas Monitoring Device/s.
ix. Load Tests Certificates of Cranes and Lifting Equipment.

6.6. Appointments

The *Contractor* is to provide the *Employer* with the following appointment documents that are to be fully completed and signed as required in terms of the Occupational Health and Safety Act & Regulations Act 85 of 1993. These documents must also be accompanied by the training certificates.

i. Section 16 (1) or 16 (2) - Delegated Authority
ii. Construction Regulations (CR) 8(7) - Construction Supervisor.
iii. Construction Regulations 8(5) - Safety Officer.
iv. Construction Regulations 9(1) - Risk Assessor.
v. Construction Regulations 13(1) (a) - Excavation Supervisor.
vi. Construction Regulations 23 (1) (d) - Construction Vehicle and Mobile Plant Operator (s).
vii. Construction Regulations 23 (1) (k) - Construction Vehicle and Mobile Plant Inspector (s).
viii. General Safety Regulations 3 and 4 - First Aider.
ix. Section 24, General Administrative Regulation 9(2) - Incident Investigator.

6.7. Transport and disposal of hazardous waste.

The *Contractor* is to ensure that the services conducted adheres to the following requirements.

i. Waste is disposed at an approved disposal sites or treatment facilities and keep records of permit of those facility.
ii. The *Contractor* is required to comply with the requirements for the handling, transportation and disposal of waste, in terms of the National Environmental Management Waste Act 59 of 2008.

iii. The Hazardous Waste Transporter licenses are in place for the Municipality (As per the applicable Municipal bylaws) and are kept on records by the *Contractor*.

iv. All Drivers are to hold a valid Hazardous Material Transportation Professional Driving Permit (PrDP) Category D as required in terms of the National Road Traffic (NRTA) Act 93 of 1996, South Africa National Standards specified in the (NRTA) and the Hazardous Substances Act number 15 of 1973.

v. The drivers must have valid driving licenses as required in terms of the National Road Traffic Act 93 of 1996 at all times when driving on the roads.

vi. Vehicles trucks registration number and must be registered to transport dangerous goods as required in terms of the National Road Traffic (NRTA) Act 93 of 1996 and the South Africa National Standards specified in the (NRTA).

vii. Ensure that the employees performing the work area trained on the on dangerous goods handling and transportation and the training certificates are kept by the appointed *Contractor.*

6.8. Suits/overalls

Flame retardant and Acid-resistant SABS approved Conti Suit / overalls with long sleeves or similar. Materials meeting the requirements of SANS 434, antistatic properties EN 1149 with silver reflective strip (50mm in width) on each sleeve around upper arm and each leg, meeting the requirements for EN471.

6.9. Safety boots and gumboots

Safety footwear with steel toe protection, anti-static, slip resistant, hydrocarbon resistant and leather material. Gumboots shall be made of solid rubber, low abrasion material and waterproof. The sole shall be acid and oil resistant and non-slip.

6.10. Hard hat

Hard hat with chin straps meeting requirements of SANS 1397:2003

6.11 Eye protection

Suitable protective eye protection with side shields or wrap around protection must be worn for protection against dust particles, sunlight exposure, flying particles, chemical gases or vapors, chemical splashes, etc.

6.12 Respiratory protection

Respirator with organic vapor cartridge/ filter must be used for protection against organic vapors, fumes, and particulates.

6.13. Hand protection

Chemical resistant gloves must be worn to protect *Contractor's* employees against exposure and skin absorption of hydrocarbons (Petrol, diesel, intermixture). Suitable gloves must be selected based on the task to be performed and the specific identified hazards.

7. ACCESS CONTROL AND SECURITY FOR INCIDENTS ALONG THE PIPELINE NETWORK

The *Contractor* is to include, but not limited to the following pertaining to spill site security. The appointed *Contractor* must ensure that its subcontracted Security company to guard the spill sites or to undertake any work pertaining to this contract complies with the following requirements. The *Employer's* Security Department will on an ad hoc basis screen the appointed security company to verify if they comply with these requirements.

i. Must have a minimum of two PSIRA Registered Security Guards for access control to prevent unauthorized entry onto the spill site, and for overall security of the spill site. The *Employer's* Security Department will perform security screening of the Contract's subcontracted security.
ii. The appointed security service provider should post or deploy a Grade C PSIRA accredited security officer.
iii. The security service provider should conduct site specific threat risk assessment & security plan when posting security in each spill site and it must be included in the security file that will be onsite.

iv. There should be an updated security officers site file onsite and should include the following (PSIRA certificate, security training center certificate, Grade 12 certificate, certified copy of identity documents, firearm competency certificate-hand held gun or pistol basic, first aid training, basic firefighting certificate, medical fitness certificate, South African Police Services clearance certificate). The site security file must include emergency numbers (Control room, security supervisor and Manager). The documents are to be updated as and when required (i.e. when expired).

v. Security uniform & equipment (full clean uniform, shirt with company logo, trouser, socks, pull over, cap, jersey, wind breaker, safety boots, name tag, two-way radio, cell phone, panic button,)

vi. An Access Control Book must be maintained for person/s visiting the site, recording as a minimum the name of visitor, identification, date of visit, organization representing and the purpose of the visit.

vii. An Occurrence Book must be maintained for any occurrences that take place on site.

viii. The working area is to be cordoned off to restrict access from people and animals and to prevent the unnecessary disturbance of the unaffected areas of the site.

ix. A temporary fence may be required in some instances to restrict access from livestock or people to site where the site is near grazing livestock and/or human settlements. The type of fencing must be appropriate to the locality and approved by the *Service Manager* before implementation.

x. Provide and erect signage as required, e.g. 'No Entry', 'Assembly Points', 'Emergency Escape' and 'No Smoking' signs to ensure safety, order and control on the site.

7.1. Site amenities for incidents along the pipeline network

The *Contractor* is to include, but not limited to the following pertaining to site amenities:

i. Provide and maintain ablution facilities for employees working on site and ensure that toilets are hygienic and maintained regularly.

ii. Provide adequate emergency lighting if required (to be confirmed with the *Employer*'s Incident Commander).

iii. Provide sheltered and weather-proofed area for Security Personnel and Workers where they can rest and eat.

iv. Provide washing facilities, decontamination areas, access to suitable drinking water and First Aid facilities.

v. Ensuring that arrangements are made for accommodation, meals, and other disbursements necessary to carry out the work effectively.

vi. The *Contractor* shall always comply with the Transnet Contractor Management Procedure (TRN-IMS-GRP-PROC-014) attached as **Annexure B**, the TPL Safety, Health, Environmental and Quality Requirements prescribed by law and applicable standards, as they apply to the services. The *Contractor* shall comply with the provisions of the OHSA and requirements of the Construction Regulations (2014) relating to excavation and other relevant activities. The *Contractor* performs duties of the *Employer* and is in every respect responsible for compliance with the provisions of the Act.

vii. The *Contractor* will be responsible for the Safety, Health, Environmental and Quality requirements that the *Employer* may require to be implemented. The *Contractor* shall ensure that no person or employees are allowed to enter the spill site, unless that employee or person has undergone safety, health and environmental induction training pertaining to the hazards prevalent to the site at the time of entry. The *Contractor* shall ensure that all employees working on site have valid medical certificates of fitness specific to the work to be performed and issued by a registered Occupational Health Practitioner.

viii. The *Contractor* shall ensure compliance with the SANS Codes for the Transportation of Dangerous Goods (SANS Codes 0231 and 0232) in that vehicles transporting hazardous substances from the site comply. Written proof to support this must be provided.

ix. Employees must be trained, competent and have experience in handling hydrocarbon spillages and hazardous liquid substances. The *Contractor* must provide proof of training in writing to the *Employer*.

x. Damage to the *Employer's* property will be for the *Contractors* account. The *Contractor* and that they are required to provide evidence that they are insured for such eventualities.

8. CONFIDENTIALITY

i. The *Contractor* must not engage or share any detail of the incident to the public, media, or any other party without the consent from the *Service Manager.*

ii. All queries with regards to the incident must be referred to the *Employer* Public Relations Manager for communication with the public and / or media.

iii. The *Contractor* must not allow video or photographs to be taken by its own employees unless it is specifically for updating or reporting to the *Employer.*

Annexure A - Padding and bedding sand specifications/requirements for wrapped steel pipelines.

Test certificate from the laboratory is required with the sand indicating that it meets Transnet Pipelines specification.

Bedding and padding sand used during the laying and repairing of pipelines shall comply with the following criteria:

i. Plaster Sand (Washed), Umgeni River Sand or Suitably leached mine sand.
ii. The bedding and padding material shall be fine sand or fine non-cohesive soil, free from stone, gravel, lumps, and which does not cake or form lumps when drying out.
iii. The pH value of the tested sand shall not be less than 5,5 The P.I. (Plastic Index) shall not exceed 6.
iv. The Sieve Analysis Cumulative percentage passing shall be at least 95% at 2mm sieve size.
v. The diameter of the largest particle of sand must not be greater than 1,5 mm. The tenderer shall provide proof of mining right at the area of mining.
vi. The tenderer shall provide a sample of the sand prior to delivery for testing purposes. The tenderer shall provide a test certificate for the sand to be delivered.
vii. The tenderer shall provide a new test certificate should the source of sand change.

General Requirement

i. It should, however, be noted that crusher dust is not acceptable as it is too abrasive and also not sea sand