



H & S MANAGEMENT PLAN

HEALTH AND SAFETY MANAGEMENT PLAN

For: Transnet Port Terminals (TPT), Saldanha

Project Name: FEL3 - Saldanha Bulk Terminal Equipment Refit: Stacker Reclaimers, Ship Loaders and Tippler 2 (Phase-4: Stacker Reclaimer 3)

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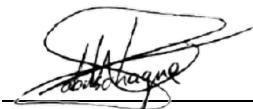


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Table of Contents

1. Introduction	7
1.1 Purpose and Scope	7
1.2 Safety Management Principles	7
1.3 Integrated Management System Commitment Statement	8
1.4 Project Safety Goals	8
1.5 Plan Objectives	8
1.6 Relationship between Project Health and Safety Documents	9
2. Leadership and Commitment	10
2.1 Intent	10
2.2 Leadership	10
2.3 Commitment	10
2.4 Roles, Responsibilities and Accountability	11
2.4.1 TPT Project Manager	11
2.4.2 TPT Project Management Team	11
2.4.3 TPT Project Construction Managers	11
2.4.4 TPT Project Safety Discipline Lead	12
2.4.5 TPT Project SHEQ Manager	12
2.4.6 Contractor/Service Provider Safety Officer	12
2.4.7 Client Health and Safety Agent	12
2.4.8 TPT Project SHEQ Officer	13
2.4.9 Contractors' General Requirements for Health and Safety	14
2.4.10 Contractors' Management	14
2.5 Legal Requirements	14
2.5.1 Local Legal Requirements	14
2.5.2 Clients Agent	15
2.5.3 Documented Procedures	16
2.5.4 Document Control	16
Involvement, Communication and Motivation	17
2.6 Intent	17
2.7 Involvement	17
2.7.1 Incentive Program	17
2.8 Communications	17
2.8.1 Project Site Safety Review Committee (Steercom)	17
2.9 Contractor Monthly Meeting	18
2.9.1 Weekly Toolbox Meetings	18
2.9.2 Pre Start Safety Briefings	18
2.9.3 Employee Health & Safety Representative	18
2.9.4 Safety Bulletins and Alerts	18
2.9.5 Safety Action Meetings	18
2.10 Motivation	18
2.10.1 Site Rules	18
2.10.2 Health and Safety Disciplinary Procedure	20
2.10.3 Management –Safety Observations and Coaching (SOC's)	20
3. Performance Tracking and Accountability	21



3.1	Intent	21
3.2	H&S Performance Reporting	21
3.2.1	Lead Indicators.....	21
3.2.2	Lagging Indicators.....	21
3.3	Workplace Observations and Audits.....	22
3.3.1	Corporate Governance Audit	23
3.3.2	Pre Tender Contractor Site Audit.....	23
3.3.3	Pre-Mobilization Contractor Safety Management Plan Audit	23
3.3.4	Risk Assessment Reviews	23
3.3.5	Equipment Audits	24
3.3.6	Measurement and Review	24
3.3.7	Contractors and Vendors	24
3.3.8	Reporting.....	24
4.	Contractor Safety Alignment.....	25
4.1	Intent	25
4.2	General	25
4.3	Suppliers and Contractors	26
4.3.1	Contract Strategy	26
4.3.2	Tender Documents.....	26
4.3.3	Tender Safety Evaluation.....	27
4.3.4	Pre-Award Meeting	28
4.3.5	Award	28
4.3.6	Pre-Mobilization (Kick-off) Meeting.....	28
4.4	Employment Process	29
4.4.1	Mobilization	29
4.4.2	On Site	29
4.4.3	Review and Close Out	30
4.5	Procurement	30
4.5.1	Requisitioning.....	30
4.5.2	Inspection Release.....	30
5.	Learning and Competency	31
5.1	Intent	31
5.2	Learning	31
5.2.1	Inductions.....	31
5.2.2	Contractor's Training Programs	32
5.3	Competency.....	32
5.4	Contractors/Service Providers Safety Training.....	32
6.	Hazards and Risk Management.....	33
6.1	Intent	33
6.2	General	33
6.2.1	Technical and Construction Expertise	34
6.2.2	Hierarchy of Control	34
6.3	Top Down Planning.....	34
6.4	Hazard Management on Site	35
6.4.1	Project Specific Hazards.....	36
6.4.2	Risk Assessments (RA's).....	36
6.4.3	Daily Safe Task Instructions (DSTI's):	36

6.4.4	Planned Task Observations (PTO)	36
6.4.5	Hazard and Facility Review Studies	37
6.4.6	Hazard Identification and Risk Assessment Workshops	37
6.4.7	Risk Assessment of Plant and Equipment	37
6.4.8	Standard and Performa Registers	37
6.4.9	Method Statement	38
6.4.10	Critical Hazard Management Plan	38
6.4.11	Risk Assessment	38
6.4.12	Unsafe Operations	38
6.4.13	Work in Operating Areas	38
6.4.14	Hazardous Materials	39
6.4.15	Management of Change	39
6.4.16	Construction Regulation	39
7.	Occupational Health and Hygiene	39
7.1	Intent	39
7.1.1	Health and Hygiene Program	40
7.2	Fitness for Work	40
7.3	Hazardous Substances	40
7.4	Noise and Vibration	41
7.5	Personal Hygiene	41
7.6	Protection of Outdoor Workers	41
7.7	Occupational Health Services on Site	41
7.8	First Aid	42
7.9	COVID 19	42
7.10	Off Loading Vehicles	42
8.	Safe Systems of Work	42
8.1	Intent	42
8.2	Project Safety Standards	42
8.3	Project Safety Procedures	44
8.4	Permits to Work (PTW)	44
8.4.1	Personal Protection	45
8.5	Public and Company Personnel Safety	45
8.6	Pre-Commissioning Safety Review	46
8.7	Commissioning Safety Study	46
8.8	Detailed Requirements	47
9.	Incident Management	47
9.1	Intent	47
9.2	Incident Management	47
9.2.1	Incident Reporting	48
9.2.2	Incident Investigation	48
9.2.3	Incident and Investigation Reports Review	48
9.3	Injury Management	48
9.4	Emergency Preparedness and Response	49
10.	Designing for Safety and the Environment	49



10.1	Intent	49
10.2	Designing for Safety.....	50
10.2.1	Hazard Assessment during Design.....	50
10.2.2	Hazard Register	50
10.2.3	Design Phase SAFETY Risk Management Milestones	50
10.2.4	Management of Change	51
11.	Appendices	51
11.1	Appendix A – IMS Commitment Statement	51
11.2	Appendix B - Specific Health & Safety Specification Z.5200160-SSHSS	51
11.3	Appendix C – Baseline Risk Assessment.....	51
11.4	Appendix D - Client Safety Agent Appointment.....	51
11.5	Appendix E - Construction Work Permit	51

1. Introduction

This plan will be a live document with necessary updating to reflect project phases and developments.

1.1 Purpose and Scope

The purpose of this Health and Safety Management Plan (HSMP) is to outline the management approach and strategies to be adopted during the execution of the equipment refit in the Bulk Terminal Saldanha by Transnet Port Terminal's Project team, Principal Contractors and Contractors to prevent occupational injury or illness by anticipating, recognising, evaluating and controlling safety hazards to alleviate unsafe acts.

The Health and Safety Plan and associated contract; legislation; codes of practice; standards; procedures guidelines; programs and references (Project Safety Management System) identify and encompass the working behaviours and safe work practices that will be expected of all the Project Management Team members, Vendors and Principal Contractors; Contractors and visitors engaged on all the projects managed by the TPT Project Team.

The TPT Project Team approach to achieving this goal is based on the belief that the essential ingredients of successful safety management are:

- Dedicated managerial leadership
- Employee involvement and ownership
- Effective management systems
- Safe systems of work
- The use of principal contractors and contractors who can demonstrate that they understand these "essential ingredients" and have implemented them, resulting in acceptable safety performance; and
- By encouraging all participants in the Project to adopt a culture of exemplary safety leadership, promotion and awareness, and rigorous hazard identification and risk management

Within this Plan, the word "safety" is taken to include occupational health and hygiene and workplace safety. Also, "Contractors" is taken to include Suppliers with an on-site installation / supervisory role.

Also within the Plan the word "shall" indicates a mandatory Project requirement.

1.2 Safety Management Principles

The safety management principles adopted here in are a customisation/utilisation of the following:

- TPT Safety, Health, Environmental and Quality (SHEQ) Policy

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- Transnet's Integrated Management System (TIMS) policy and procedures, Guidance notes and Programs
 - Legislative Requirements

It is a pre-requisite for all contractors and suppliers with an on-site installation / supervisory role to develop, operate, and maintain a Safety Management Plan which incorporates the principles outlined herein and which is tailored for their scope of work, this plan must be in accordance with the Client project health and safety specification. These Plans shall identify the key areas affecting safety and shall promote safety through design; work methods; education; encouragement and reward.

1.3 Integrated Management System Commitment Statement

The IMS Commitment Statement establishes principles to protect and advance the Projects essential safety interests and to fulfil the Project's commitment to Health and Safety. TPT highly values the health and safety of employees, customers and communities.

IMS Commitment Statement, attached as **Appendix A**.

1.4 Project Safety Goals

TPT has set a goal of "Zero Harm" to people; plant; the environment and community in the delivery of the projects. To achieve this goal, the key stakeholders in the TPT; contractors; vendors; and the workforce shall work together to demonstrate visible leadership and proactive communication to achieving safety excellence through personal examples and to promote, and provide systems where this is championed by everyone.

TPT will set key objectives and take action to achieve the goals. Goal setting will help establish priorities, build team confidence, provide direction and create motivation towards action.

The key principles that TPT will use are:

- Goals are the end towards which effort is directed
- Plans shall contain goals that aim to achieve the principles of the Project Health and Safety Policy; and
- Strategies and activities are specifically designed to achieve these goals

1.5 Plan Objectives

The objectives of the Health and Safety Plan are:

- To provide the overall approach to safety that is to be undertaken by appointed Contractor/Service Provider on the Project.
- To set the performance requirements of TPT or compliance with the Project Safety Policy
- To establish the relationship between this Safety Plan; the Contract Documents; Project Site Standards; Safe Work Procedures and Safety Plans and Programs prepared by contractors; and

- To establish actions and responsibilities that will ensure implementation of the objectives

1.6 Relationship between Project Health and Safety Documents

As mentioned previously this Health and Safety Plan describes the strategies that, together with the contract documents, will be used by TPT to implement the Project Safety Policy for all works associated with the project.

Site contractors and selected vendors shall be required to prepare their health and safety plans for executing their particular work packages on the Project. The standard set by this plan will be the minimum requirement for all contractors and vendors on the Project. All Project participants shall be made aware of the Project SHE Policy and shall be required to commit to the implementation of the Policy in their contribution to the Project.

Prior to any site work activities commencing, TPT and Contractors shall meet in a pre-start safety review. The purpose of this review will be to compare the contents of the contractors' health and safety plans and the Project Health and Safety Plan to ensure conformance to the safety approach on the project.

Contractors shall not commence work on site until they have submitted their Contract Specific Health and Safety Plan and Safety File. The Safety File, with proof of site specific RISK Induction, signed by all involved, including sub-contractors and employees reporting to specific Principal Contractor. A hard copy "Safety File" will be kept at the Port of Saldanha TPT SHEQ Offices for the duration of the project.

2. Leadership and Commitment

2.1 Intent

Leaders at all levels shall demonstrate, by means of their actions, attitude, consistency and energy provide a visible, pro-active and demonstrated commitment to Health and Safety.

2.2 Leadership

TPT will provide leadership in achieving the highest attainable standards in safety. The following embody TPT Project Team underlying values:

- We are all responsible for safety and take action to prevent harm
- We never accept or condone sub-standard work practices or plant
- Sustain a positive proactive culture where the safety will not be compromised
- Provide a healthy and safe working environment by striving to identify and eliminate workplace hazards
- Promote the assessment of risks and the elimination of fundamental causes that result in losses
- Meet or exceed all applicable legislative requirements
- Engage employees in safety management through involvement and consultation
- Encourage and support Safe Work Behaviours
- Make all levels of management individually accountable for managing safety issues
- Induct and train employees and contractors so that they are aware of and work in accordance with this Health and Safety Plan; and
- Sustain a continuous improvement focus by regularly monitoring, auditing and reviewing safety objectives and safety performance

TPT Project Team will consult with successful vendors, contractors and their personnel in order to ensure they commit to the same safety goals.

2.3 Commitment

Visible commitment is essential to providing a safe work environment. TPT Managers, Supervisors and Employees at all levels will demonstrate their commitment and concern by:

- Ensuring that decisions and practices are consistent with the stated policies, values and project objectives
- Adopting a risk management approach to all safety issues
- Participating in hazard identification, risk studies and risk assessments
- Wearing the correct personal protective equipment

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- Putting safety first on all activity agendas
 - Participating openly in safety meetings
 - Following up on safety action items in a timely manner
 - Ensuring that all incidents are reported and investigated
 - Being part of incident investigation teams if needed
 - Participating in regular safe behaviour observations; and
 - Participating in regular inspections and audits

TPT will consult with successful vendors, contractors and their personnel in order to ensure they show the same commitment to safety.

2.4 Roles, Responsibilities and Accountability

2.4.1 TPT Project Manager

The Project Manager is responsible and accountable for the successful and safe completion of the Project.

The Project Manager must not allow any work to commence without proof of induction and proof that all the requisite SHEQ documents have been approved or signed-off before any work may commence. Owner of the Project must issue Permit to Work.

2.4.2 TPT Project Management Team

Each person in the Project Management Team has responsibilities for the management of safety. The Project Health and Safety Discipline Lead and Safety Officers have supporting roles to assist managers and supervisors fulfil their responsibilities and accountabilities. All Project Management Team members will acknowledge their safety responsibilities in writing.

2.4.3 TPT Project Construction Managers

The Construction Managers will have particular responsibilities for the management of safety on the various Project sites. The Construction Managers, have the following obligations:

- Implement the health and safety management system
- Monitor compliance to the established safety management system
- Ensure risk is at an acceptable level
- Ensure contractors' workforce and the Contractors' Construction Management Team are competent.

Provide for:

- Planning, organisation, leadership and control
- Particular technical competencies for critical work

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- Supervision and control on each shift
 - Regular monitoring and assessment: and
 - Workplace inspections

2.4.4 TPT Project Safety Discipline Lead

- Planning, organisation, leadership and control
- Monitor compliance to the established health and safety management system
- Guide and provide support to the site safety team
- Compile procedures and ensure implementation thereof
- Audit the various sites

2.4.5 TPT Project SHEQ Manager

- Review contractor SHEQ file for accuracy, consistency and legal compliance
- Ensure that the project is audited by the Contractor/Service Provider as per their schedule
- Approve Permit to Work upon satisfaction of the contents of the document
- May request external audits if the need arises.

2.4.6 Contractor/Service Provider Safety Officer

- Conducting Site inspections
- Monthly audits
- Incident investigation
- Monitor compliance to the established safety management system
- Ensure compliance with any other relevant acts, regulations and standards

2.4.7 Client Health and Safety Agent

An OHS Safety Agent has been appointed i.t.o. Construction Regulation 5 of OHS Act 85 of 1993 and CR (Construction Regulations) 2014. The OHS Safety Agent is registered with SACPCMP as a Professional Health and Safety Agent. Refer to Appendix D for Appointment Letter and Registration Certificate.

A project specific Health and Safety Specification has been developed by the Safety Agent, in line with Transnet's Integrated Management System (TIMS) policy and procedures. This H&S Specification will be included in the enquiry documentation, as the Specification to which the Contractors are to comply. Refer Appendix B for this specification.

The OHS Safety Agent will in the appointed capacity ensure that the following stipulations in terms of the Occupational Health and Safety Act, Act 85 of 1993 and specifically the CONSTRUCTION REGULATIONS 2014 be complied with at all times within the area of jurisdiction:

- a. Prepare a documented health and safety specification for the construction work and provide any principal contractor with the same (completed).
- b. Provide the principal contractor and his or her agent with any information which might affect the health and safety of any person at work carrying out construction work.
- c. Appoint each principal contractor in writing for the project or part thereof on a construction site.
- d. Ensure that each principal contractor's health and safety plan is implemented and maintained on the construction site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed upon between the client and principal contractor, but at least once every month.
- e. Stop any contractor from executing construction work which is not in accordance with the principal contractor's health and safety plan contemplated in sub regulation 5 (1)(q) for the site or which poses to be a threat to the health and safety of persons
- f. Ensure that where changes are brought about, sufficient health and safety information and appropriate resources are made available to the principal contractor to execute the work safely
- g. Ensure that every principal contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to work commencing on site
- h. Ensure that potential principal contractors submitting tenders, have made provision for the cost of health and safety measures during the construction process
- i. The agent shall discuss and negotiate with the principal contractor the contents of the health and safety plan contemplated in sub regulation 5(1) and thereafter finally approve the health and safety plan for implementation

The scope of the OHS Safety Agent will be applicable to all activities of employees on the construction site.

2.4.8 TPT Project SHEQ Officer

- TPT SHEQ officer will review contractors SHEQ file for consistency after obtaining a copy from the Engineering Consultant's safety officer.
- TPT SHEQ officer and the Engineering Consultant's safety officer will communicate regularly for alignment
- TPT SHEQ officer will induct the Engineering Consultant's construction team, Contractors construction team and any other visitors to the Project.
- TPT SHEQ officer may attend contractor progress meetings

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- TPT SHEQ officer may accompany the Engineering Consultant's safety officer during inspections.
 - TPT SHEQ officer to ensure contractors comply with the HS plan.
 - TPT SHEQ officer to monitor compliance to the established safety management system.

2.4.9 Contractors' General Requirements for Health and Safety

Contractors will be solely responsible for carrying out the works under the various contracts having the highest regard for the health and safety of all personnel engaged on the Project.

2.4.10 Contractors' Management

Contractors' management personnel are responsible and accountable to the Engineering Consultant's for safety performance and have the following key responsibilities for safety management, which shall be defined in the Contractor's Safety Plan:

- Preparation, implementation and maintenance of a Health and Safety Plan specific to their area of work and responsibility
- Participate in a pre-site safety review with TPT
- Ensure that all members of the Contractors workforce have clearly defined responsibilities for safety, and that the responsibilities are clearly communicated to them, understood and fulfilled by them
- Ensure that all of the Contractor's activities comply with the requirements of their health and safety plan and relevant statutory and contractual requirements
- Establishing an on-going system for training and assessment of skills and competence
- Provision of weekly/monthly safety statistics to TPT Safety Discipline Lead
- Hazard identification and management program
- Submission of weekly Safety Observations and Conversations (SOCS)

These requirements will be further detailed in the Project Health and Safety Specification.

2.5 Legal Requirements

2.5.1 Local Legal Requirements

- Acts and Regulations and Codes
- Occupational Health and Safety Act 85/1993 (and regulations including Construction Regulations 2014)
- Nuclear Energy Act 13/1993
- Compensation of Injuries and Diseases Act. 133/1993
- Hazardous substance Act 15 of 1973
- Any other legislation as detailed in the Project Legal Register

2.5.2 Clients Agent

For the Project, the TPT's Project Manager will assume the role of Agent to the Client under the Occupational Health and Safety Act 85/1993 and Regulations. As such, the TPT Project Manager shall:

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

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- Hand over a consolidated health and safety file to the Client upon completion of the construction work and shall in addition to the documentation provided by the principal contractors include a record of all drawings designs, materials used and other similar information concerning the completed structure/(s).
 - Ensure a comprehensive and updated list of all the principal contractors and contractors on site accountable to the principal contractor, the agreements between the parties and the type of work being done is available.
 - Not recommend for appointment by the Client a contractor to perform construction work unless TPT Project Manager is reasonably satisfied that the contractor that the TPT Project Manager intends to recommend, has the necessary competencies and resources to perform the construction work safely.
 - Ensure all principal contractors are informed regarding any hazard as stipulated in the risk assessment before any work commences, and thereafter at such times as may be determined in the risk assessment.
 - That the necessary health and safety specifications are prepared and made available to all concerned;
 - That only competent Principal Contractors are appointed and provided with information which may affect the health and safety of any person on the premises in question;
 - Negotiate each Principal Contractor's health and safety plan with him before it is approved, by TPT, for implementation;
 - That the above-mentioned health and safety plans are implemented and maintained – and that audits are conducted on Principal Contractors at pre-determined intervals of not more than one month;

2.5.3 Documented Procedures

Documented procedures shall be prepared to ensure compliance with the above regulatory requirements and to enable communication of the specific requirements to the Project personnel.

2.5.4 Document Control

All safety documents shall comply with the Project document control procedures.

Involvement, Communication and Motivation

2.6 Intent

Leaders at all levels shall, proactively demonstrate their commitment to Health and Safety by means of their actions, with their visible and on-going support by involving, communicating with, and motivating their team members.

Communication on health and safety management matters is one of the key elements in achieving safety compliance on the Project site. Regular structured meetings are required to ensure that effective communications occur between management and the Project workforce.

The key programs for involvement, communication and motivation on the Project will include elements shown in following table.

Table 0.1: Key Programs

Involvement	Communications	Motivation
Suggestion scheme Achievement / Award Program/ Incentive Program	Project Safety Team Contractors' toolbox meetings; Bulletins and alerts; Safety Action Notice Board	Site Rules Safety; observations and coaching; Behavioural improvement and discipline program

2.7 Involvement

2.7.1 Incentive Program

Contractors shall establish systems within their own organisation that recognise, reinforce and reward safety initiatives and desired outcomes.

2.8 Communications

2.8.1 Project Site Safety Review Committee (Steercom)

The Project Site Safety Review Committee's shall be a group representing the safety interests of the employee workforce throughout the Project at the various sites. The committee shall include the TPT Site Construction Manager and the Construction Manager from each contractor along with an employee representative from each contractor.

The Committee shall meet monthly and deal with overall site safety issues. Any day-to-day safety management issues will be addressed immediately through the site leadership structure.

The Committee is an advisory body and assists and works constructively with site management.

The Project Team and contractors' management shall ensure that Committee representatives can afford sufficient time to devote to matters related to the Committee's activities. Minutes of the meetings of the Project Safety Committee shall be communicated throughout the Project Site.

2.9 Contractor Monthly Meeting

Contractors are to conduct at least one formal safety meeting per month and must maintain appropriate records of attendance and meeting content. Such records shall be made available to the Project- and Construction Manager and the TPT's Representatives.

2.9.1 Weekly Toolbox Meetings

Weekly safety toolbox meetings are to be held by all contractors with their employees to promote safety awareness. Copies of minutes and action items arising from such meetings are to be submitted to the Project- and Construction Manager and made available for review by the TPT's Nominated Representatives.

2.9.2 Pre Start Safety Briefings

Contractors are to hold documented Daily Safe Task Instructions briefings with each work team before the start of each shift. Attendance records and brief topic notes are to be kept for auditing and record purposes.

2.9.3 Employee Health & Safety Representative

Contractors are to ensure that sufficient elected and appointed Health and Safety representatives represent all workers employed by the Contractor. Each elected and/or appointed Health and Safety Representative is required to attend an accredited Health and Safety Representatives training course at the expense of the Contractor in accordance with the provisions of the applicable legislative requirements.

2.9.4 Safety Bulletins and Alerts

Safety Alerts shall be used as the official Project-wide-communication of serious incidents and hazardous activities. Safety Alerts shall be displayed on all safety notice boards and distributed electronically where possible.

2.9.5 Safety Action Meetings

Safety Action Meetings that centre on an issue that requires action shall be conducted as required. The topic for the action meeting is manageable within a group's area of responsibility. For example, the continuous non-compliance to wearing of personal protective equipment (PPE). A project leader calls the team together, states the purpose, outlines the facts and gives a problem-solving question for discussion. The group then brainstorms ideas, selects actions and decides responsibilities and timing. Outcomes will be documented and signed by participants.

2.10 Motivation

2.10.1 Site Rules

2.10.1.1 Site Cardinal Rules

TPT Project Team will establish "Site Cardinal Rules" that shall be applicable to all personnel engaged on Site activities. A "Zero Tolerance Policy" shall be enforced for

intentional breach of the "Site cardinal Rules." Project Team shall advise the Contractor of any "Site Cardinal rules" in place prior to mobilization to Site.

Contractors shall ensure that any introduced "Site Cardinal Rules" for H&S are implemented and clearly communicated to all personnel prior to mobilization to Site. Induction training shall include instruction and assessment of "Site Cardinal Rules"

The following are indicative of breaches of "Site Cardinal Rules":

- Smoking and unauthorised ignition sources in an ignition risk area
- Not attached while working at heights
- Entering a hard barricade area
- Not signing onto a DSTI
- Fighting / horseplay
- Under the influence of Drugs / Alcohol
- Unauthorised removal or tampering with isolation tags / locks or safety devices
- No dangerous weapons allowed
- Using non-conforming plant, equipment or tools on site
- Walking or working within 2m of quay walls or open waters without wearing a life jacket
- Speeding
- Removing or catching any marine life
- Urinating in public or open spaces
- Unauthorised bypassing of standard operating procedures; and
- Blatant or continual breaches of the Project or Contractor Health and Safety Procedures
- Obey all safety signage and road markings
- Ensure all employees are medically fit for duty

2.10.1.2 Site General Rules

Continued disregard for Project Health and Safety standards, requirements or rules by personnel on the Project will result in withdrawal of site access or other disciplinary action. Contractors shall ensure all staff personnel engaged on the project observes the following general site rules:

- Obey all traffic speed limits

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- Responsible persons on Site shall ensure that personnel who are allocated tasks are competent to perform them
 - Gambling, horseplay and fighting shall not be permitted on the Site
 - Safe access shall be maintained at all times
 - Personnel shall only take essential items, such as toolboxes, onto the Site. All such items may be subject to inspection by security personnel, both upon entering and leaving the Site
 - Equipment, tools and utilities, owned by another Contractor or individual, shall not be used without the express permission of the TPT Representative and the rightful owner of the equipment, tools or utilities.
 - Firearms and pets are not permitted on Site
 - Wear appropriate personal protective equipment at all times when working and travelling through work areas and ensure tools and materials are in a safe condition before use
 - Food shall not be stored in the working areas
 - Attend safety meetings and conduct toolbox talks
 - Conduct Planned Job Observations
 - In the event of an emergency, follow all emergency procedures both contractor and TPT specific.
 - Smoke in designated areas only;
 - Wear seat belts in vehicles and in all other relevant equipment or machinery
 - Do not use mobile phones whilst driving

2.10.2 Health and Safety Disciplinary Procedure

Where a breach of a Site H&S rule or a Contractors safety procedure is identified the Contractor shall ensure that any disciplinary action taken is in accordance with an approved procedure. In the absence of a disciplinary procedure and dependent on the nature of the breach, the process as outlined below should be used:

- first breach -verbal warning/counselling;
- second breach -written warning/counselling; and
- Third breach -appropriate disciplinary action taken.

Where a breach of an H&S rule has occurred and is considered blatant, the person's Site access may be withdrawn at the discretion of the Project Construction Manager after consultation with the relevant persons.

2.10.3 Management –Safety Observations and Coaching (SOC's)

Safety observations shall be done at least daily at each workplace on the Project site. It is preferable that the safety observation teams comprise at least two people and represent

different levels in the organisation. Safety observation forms will be completed after each observation and handed to the principal contractor safety officer.

The process will generally be along these lines:

- Plan the observation
- Ensure that all the site rules and procedures applicable to the area are followed
- Observe the task noting any sudden change or deviation from the task as you approach
- Complete a visual assessment to ensure that you and the team members are not at risk whilst in the area
- Introduce yourself to the team on your intention to conduct the task observation, open the discussion with a positive comment
- Discuss and correct any unsafe acts/conditions, if unable to correct report to the immediate supervisor for action
- Discuss any opportunities for improvement
- When safe behaviours and conditions are observed congratulate/recognise/reward the effort; and
- Complete the documentation, including signature by those observed and report any uncorrected behaviours/conditions as well as positives to the supervisor

3. Performance Tracking and Accountability

3.1 Intent

Performance Measurement and Reporting both pro-active and reactive, are to be undertaken and used in the analysis and identification of trends and risks. Results are to be provided for review and used to encourage continuous improvement.

3.2 H&S Performance Reporting

Principal contractors' are to provide accurate on-site data of safety performance while the contractor has personnel on Site. This data shall also include safety performance for each of the principal contractor's contractors. The information shall be received by the Project Site Safety Lead at 10:00 on the Thursday of each week in a contractor's formal safety report as follows:

3.2.1 Lead Indicators

- Number of Daily Safe Task Instructions completed versus required.
- Number of Safety Observation and Coaching inspections completed versus required.
- Number of Planned Task Observations completed versus required.

3.2.2 Lagging Indicators

- Actual hours worked in the week, including overtime hours

-
- Lost Time Injuries (LTI)
 - Days of work lost due to each LTI.
 - Restricted Work Cases (RWC)
 - Days of restricted work to each R WC
 - Medical Treatment Cases (MTC)
 - First Aid Cases (FAC)
 - Total Injuries (TI)
 - Classified Injuries
 - Total Disabling Injury Frequency Rate (DIFR)
 - Total incidents formally reported during the month
 - Near miss reporting
 - Any other health and safety related event

3.3 Workplace Observations and Audits

TPT Project Team will undertake a program of auditing and workplace inspections consisting of some of the following but not limited to:

- Corporate Governance
- Pre Tender Contractor Site Audits
- Pre Mobilization Contractor Health and Safety Management Plan Audit
- Project Health and Safety Management Plan Audits
- Procedural Audits
- Project Field Audits (as a minimum)
- PPE
- Electrical equipment Inspection
- Signage
- Plant and Equipment
- Emergency procedures
- MSDS Register
- Tool Box audits
- Induction
- Task Observations
- Permits

-
- Job Hazard Analysis Reviews
 - Working at Heights
 - Confined Space
 - Barricading, etc.

The Contractor/Service Provider will establish a schedule of regular systems and field safety audits, the audit conformance will be assessed by TPT's nominated representative will establish a schedule of regular systems and field safety audits, Contractor's audit conformance will be assessed as a percentage and where conformance is better than 90% it will be considered satisfactory and the contractor shall develop an action plan within four days, and implement as agreed upon between the auditor, construction manager and contractor representative and to be reviewed at the next regular audit. Where the contractor's level of conformance is between 75 -90%, a corrective action plan will be required to be developed and implemented within one week, and a follow up audit will be carried out. Where the contractor's conformance is less than 75% the contractor shall stop work until an investigation of the cause(s) has been completed and corrective actions have been developed and implemented by the contractor.

Contractors shall provide to the TPT's nominated representative, at a time to be agreed, a regular status report on all outstanding corrective actions until they are successfully closed out.

3.3.1 Corporate Governance Audit

Formal examination of the Project and Sites against the TPT SHEQ Policy, Program Elements and Expectations, and Standards.

3.3.2 Pre Tender Contractor Site Audit

An audit of a contractor workplace to assess the suitability of a contractor prior to issuing a tender.

3.3.3 Pre-Mobilization Contractor Safety Management Plan Audit

A desktop review of a contractor's project specific safety management plan against a predetermined set of criteria that has been communicated to the contractor prior to submittal of the plan.

3.3.4 Risk Assessment Reviews

Review of Risk Assessments as prepared by contractors.

Reviews are done after the following, but not limited to:

- New activities:
- Work methods change

-
- Procedures or standards change
 - Legislation change
 - Changes (Management of Change);
 - Workplace incidents
 - All risk assessments must be reviewed annually if no change

3.3.5 Equipment Audits

Detailed inspection of equipment using predetermined checklists by competent personnel.

3.3.6 Measurement and Review

- Safety performance reviews with all site personnel by their supervisors at monthly intervals
- Schedule of site inspections and audits involving persons in leadership roles
- Leadership participation and review of significant incidents
- Schedule of reviews of the Health and Safety plan implementation progress
- Schedule of external safety audits of the project
- Scheduled reviews after the completion of potentially high-risk activities on site
- Provision for monitoring of employees exposure to noise, dust etc.
- Inspection and acceptance of plant, equipment, tools etc. prior to introduction to site and regularly thereafter

3.3.7 Contractors and Vendors

All contractors and vendors will be included in the safety observation and audit program.

3.3.8 Reporting

Formal Project Monthly Health and Safety reports will include at least the following:

- Significant issues and steps being taken to overcome them;
- Projects positive performance indicators', leading and lagging indicators and associated action taken:
- Incidents / Near Misses
- LTI – Lost Time Injury
- DIFR – Disabling Injury Frequency Rate
- Safety training
- Challenges envisaged on the project
- Achievements
- MTI – Medical Treatment Injury

- 12 month rolling horizon
- First Aid
- Audits

Safety Performance Summary forms shall be completed for each week and submitted to TPT or the TPT's nominated representative no later than the first day of the following week.

Monthly Safety Performance Summary forms are to be completed by the Project team and all Project contractors.

Contractor/Service Provider Safety Department will consolidate the monthly health and safety report before or on the 27th of each month and forward a copy thereof to the TPT SHEQ Manager.

4. Contractor Safety Alignment

4.1 Intent

The contracting of services, and/or the purchase, hire or lease of equipment and materials shall not cause harm to personnel, the public, and the environment or to property. Arrangements will be in place for the safety of visitors to our operations and projects. Selection and retention of contractors and suppliers shall include review and assessment of safety performance.

4.2 General

Effective alignment of contractors' safety values and goals to the TPT's safety values and goals will be an integral part of the Project's Health and Safety Management System. A Contractors' Health and Safety Plan shall incorporate the intent of this Health and Safety Plan and will focus on key hazards and systems, as well as how the plan will be monitored and reviewed during the execution phase.

The alignment process managed by TPT & engineering Consultant's Project Team will cover the following stages in the Project Contract Strategy;

- Pre-qualification of contractors
- Pre-contract considerations
- Tender
- Tender evaluation
- Pre-award alignment
- Award
- Pre-mobilization alignment
- Mobilization

-
- Work On-site: and
 - Review and close out

The extent and level of detail to be considered will be contract specific and will depend on:

- Services being contracted
- Size and complexity of the job
- number and experience of the workforce
- Risks and hazards associated with the works; and
- Safety program record and commitment of the contractor

Safety requirements shall be an integral part of the overall process of arranging and managing contracted work.

4.3 Suppliers and Contractors

4.3.1 Contract Strategy

The identification and definition of a contracting strategy and contractual arrangements will be developed using a systematic risk management approach in order to execute the work in a way that minimises the risk.

The safety input into the overall risk assessment will take into consideration the following factors:

- Number of contracts
- Interfaces between the contracts
- Contractual relationship between Transnet Limited, the principal contractor and other contractors
- Seriousness of potential safety consequences on the Project
- Likelihood of any dangerous consequences
- Complexity of the project as a whole
- Size and/or value of the project
- Services being contracted for
- Number and experience of the workforce; and
- Safety program, record and commitment of the contractors

4.3.2 Tender Documents

Tender documents issued to selected tenderers will include a Project Specific Health and Safety Specification, see attached Appendix B.

This specification was developed by the Professional Health and Safety Agent.

The appointed Professional Health and Safety Agent will conduct the Construction Health and Safety Baseline Risk Assessment for inclusion in the tender documents.

4.3.3 Tender Safety Evaluation

Potential tenderers will be screened to confirm that they have the necessary expertise, experience and capability to undertake the required role and that they are prepared to commit to the Project Health and Safety Plan.

The primary purpose of the tender assessment process is to achieve:

- Confirmation that tenderers have recognised the safety programs and expectations of the Project
- A thorough evaluation of each tenderers' Health and Safety Plans to ensure they achieve at least the minimum acceptable standards defined in the contract documentation
- An evaluation of each tenders ability to do the job and meet the Project's safety objectives
- An evaluation and comparison of the safety aspects in competing bids; and
- A checklist of the items to be clarified by tenderers

Screening will include:

- Contractor health and safety program questionnaire
- Evaluation of previous experience of potential tenderer
- Assessment of potential tenderers general reputation for management of health and safety during their work within industry
- Contractor health and safety policy
- Safety performance record, including any previous prosecution
- Contractor health and safety management systems and structures
- Demonstration of contractor senior management commitment to health and safety
- Specific Transnet Limited requirements
- Specific project and legislative requirements
- How nominated safety performance objectives will be met
- How contractors will meet the intent of the contract and work in with the project site culture: and
- Contractors' safety management structure

TPT Project Team will review contractors using a formal safety program evaluation checklist.

The detail required in contractor's health and safety plans will be dependent on the size, complexity and relative risk of the contract works.

4.3.4 Pre-Award Meeting

Meetings with tenderers during the tender evaluation period shall include clarification of TPT's health and safety commitment and requirements, TPT Project team and contractors site safety programs, finalise common goals reach agreement on performance requirements, meet proposed supervisory personnel, and clarify what is in the price and what is not.

4.3.5 Award

Contracts shall include all of the site safety programs for the works and any pre-award agreements. These must be available before mobilisation of contractors.

4.3.6 Pre-Mobilization (Kick-off) Meeting

TPT Project Team will hold pre-mobilisation meetings with all contractors: and cover the following health and safety aspects as a minimum;

- Commitment to health and safety
- Health and Safe work culture and project goals
- Introduction of key personnel and their responsibilities
- Review of the Scope of Work, geographic layout and work environment
- Review of expected site hazards and safety objectives
- Review of the work schedule and Method Statement to identify high-risk operations and the control measures to be implemented; and
- Review of the TPT Project Team and contractor health and safety plans and requirements, highlighting requirements and responsibilities

The pre-mobilisation meeting may incorporate a construction health and safety study done jointly by TPT Project Team and the contractor's team.

A Pre-Mobilisation Workshop will also be considered. These workshops provide orientation and team building for contractors, management/supervisory teams and the Project's Construction Management Team. Typical topics might include the following:

- Project goals
- Non-negotiable requirements
- Hazard recognition skills
- Meeting/communication skills
- Incident management
- Hazardous activity management standards e.g. working at heights, manual handling, electrical safety
- Specific legislative requirements
- Project agreements

- Project site wide procedures and programs
- Fitness for work programs

4.4 Employment Process

A clear auditable employment process will be established for contractors' workforce to ensure that personnel are competent, have appropriate qualifications, job skills, experience and specific training.

Effective processes will be established to manage this high-risk period by:

- Personnel screening
- Processes for plant inspections (or certification by third parties)
- Access control onto site
- Inductions before starting work; and
- Management of contractor interfaces and facilities such as site office locations, materials lay down areas and plant pick-up areas

4.4.1 Mobilization

A Construction Work Permit from the DoL has been obtained for the entire project (Phase 1-4), permit no. WC/2018/09/CPT 240. This permit will be updated prior to the execution of Phase 4 to include the specifics of phase 4. Refer to Appendix E for the Construction Work Permit.

A comprehensive contractor employee screening, induction and training program shall be in place. Contractors shall be required to provide evidence of specified pre-requisites for all their workers, including the following:

- Pre-requisite generic induction training
- Pre-placement Medical
- Evidence of necessary skills attainment and competency
- Reference checks of previous employment; and
- A signed acceptance to comply with the site rules

4.4.2 On Site

TPT Project Manager will ensure that health and safety management plans and programs are implemented, monitored, reviewed and improved. The primary aim is for all parties to work together as a team and provide a working environment in which Project site activities can proceed in a safe manner.

All people mobilizing to site will complete the Project's health and safety induction program before they start.

All contractors to complete permit to work before commencing with onsite work. During this permit application hand overs and signoffs will be conducted which is subjected to an on-going review.

4.4.3 Review and Close Out

The safety performance of all contractors shall be subject to an on-going review. On contract completion a safety performance close out statement will be prepared.

4.5 Procurement

In addition to specific health and safety legislative requirements and obligations for manufacturers and suppliers of plant, equipment and materials, TPT Project Manager has an obligation to ensure all equipment is provided with appropriate warnings and safeguards. A comprehensive plant and equipment audit will be conducted using the workplace audit tool.

4.5.1 Requisitioning

When developing requisitions and specifications for direct equipment and materials, the TPT Project Manager and the responsible discipline engineer will:

- Assess item for any obvious hazards
- Check item has the appropriate safeguards and approvals
- Ensure there are no better alternatives available and advise the appropriate personnel
- Consider ergonomic factors such as weight, comfort, convenience of handles and controls, noise and vibration, and clarity of instructions and warnings: and
- Compile general inquiries from other users to establish if any problems have been experienced.

4.5.2 Inspection Release

Before issuing plant, equipment or materials for use on the Project, the following checks will be made by Inspectors:

- Check item received is as specified in the Purchase Order and its attachments
- Ensure plant, equipment and materials conform to relevant statutory, standards and/or codes of practice
- Test certificates or certificates of conformance as appropriate are obtained to confirm that the item complies with project and legislative requirements
- Ensure Manufacturers Installation and Operation Manuals have been completed and submitted to TPT Project Team: and
- Certified drawings, particularly for electrical equipment are available.

5. Learning and Competency

5.1 Intent

All personnel are to be appropriately trained and competent to carry out their work in a safe and skilful manner.

All personnel engaged to carry out work on the Project must have the necessary skills and knowledge and be competent to perform the tasks for which they have been employed. Contractors and new employees will be required to furnish proof by way of licences, permits, certificates or by recognition of prior learning (RPL) or by written certification by a qualified assessor of their skills, competencies and knowledge of their work tasks.

5.2 Learning

5.2.1 Inductions

All personnel involved on the Project, except occasional or short duration visitors, shall be expected to comply with the following induction program:

- **TPT Site Induction (Client)** -All personnel must complete the TPT Site Induction prior to working on the site. The purpose will be to ensure that all personnel are made aware of and are conversant with the requirements of the Clients site rules, environmental requirements, cultural heritage and community relations
- **Contractor Job Specific Induction** -All personnel shall complete Job Specific Inductions for the contracted works prior to commencing work. These inductions will be the responsibility of specific contractors
- **Visitors** -A Visitors Health and Safety Induction program will be established at all sites explaining the site, the conditions applicable to their entry onto site and the necessary PPE they will be required to wear
- **Site Pass** -All personnel who attend and satisfactorily complete each induction shall be issued with a photo identification site pass. The site pass will record information in acknowledgment that they have attended the induction program. The site pass is to be carried on employees at all times on site.

5.2.2 Contractor's Training Programs

Contractors' training programs will include coverage of the following where relevant to individual's duties, but not limited to:

- The Project's Health and Safety Plan
- Contractors' Health and Safety Plans
- Fitness for Work
- Operating mobile plant
- Slings and moving loads and using lifting devices
- Manual handling
- Working at height
- Purpose of inspections and inspection reports
- Contractors' site specific inductions
- Confined space
- Hot work
- Pre start checks
- PPE use and training
- Excavation
- Isolation
- Scaffolding; and
- Hazardous substance handling, storage and use

At the completion of all training, competency of individuals shall be validated by the trainer. This will be by means of an examination (written, oral or practical) or an assessment of the trained person's performance during the training,

A record of safety training undertaken by each employee will be documented and retained permanently on a database and the employee's site identification and security card.

5.3 Competency

All personnel engaged to carry out work on the Project must have the necessary skills and knowledge and be competent to perform the tasks for which they have been employed. Contractors and new employees will be required to furnish proof by way of licences, permits, certificates or by recognition of prior learning (RPL) or by written certification by a qualified assessor of their skills, competencies and knowledge of their work tasks.

5.4 Contractors/Service Providers Safety Training

The TPT Project Manager with supporting documents from the Safety Agent will prepare a training matrix, to identify required modules and ensure role out for staff & contractors.

All identified personnel (principal contractors, subcontractors, EPCM, etc.) involved in the project to complete the following training courses:

Course Title	Overview	Objectives
Site Safety Awareness	Site Safety Awareness is a learning activity to help you understand safe working practices on site. Completion of this learning activity is mandatory for all staff prior to going on site, including construction sites and day visits to carry out site surveys.	Avoid accidents and ill health Be aware of the hazards you may be exposed to and how to protect yourself Meet your responsibilities towards others Meet your responsibilities towards the environment
Health and Safety Management Systems	A one day course designed to help project managers and project engineers who are involved in Health and Safety management activities. The course will inform you about the importance of Health and Safety management, management principles, and business benefits and how to overcome negative perceptions about Health and safety management. The course also covers vital definitions such as safety, hazards, risks, systems, etc. Enough time is allotted to understand and practice hazard identification and risk assessment, as well as to understand OHSAS 18001 requirements and benefits.	Where does OHSAS 18001 fit into the big picture? How a health and safety management system can improve your business. Vital safety management issues. How to identify risks and perform a risk assessment.

6. Hazards and Risk Management

6.1 Intent

All hazards to people, plant, equipment, the environment and the community are to be identified assessed and appropriate control measures, in accordance with risk management principles and Transnet's Integrated Management system (TIMS) policy and procedures. TPT has appointed a H&S Agent to facilitate this process

6.2 General

This section describes the principles of hazard and risk management that will be applied throughout the Project. Details of how the process will be implemented throughout the Project phases will be addressed throughout this Health and Safety Plan.

The five-fold hazard and risk management process will be applied throughout the project life cycle. This will involve:

- Defining the job
- Identifying the hazards
- Assessing the risk
- Controlling the risk; and
- Monitoring and reviewing the process

The principles for application of this process throughout the project will include:

- Wide spread and effective consultation; and
- Top down planning for SAFETY

6.2.1 Technical and Construction Expertise

Individuals with adequate understanding of the specific hazards, the phenomena associated with accident causation, the phenomena associated with injury causation, and the particular risk assessment process being used will be engaged in all risk management processes.

6.2.2 Hierarchy of Control

Following hazard assessment, remedial measures will be defined for situations of excessive risk. Control measures to eliminate or minimize the risk will be followed in the following order of priority:

- Firstly, try to eliminate the hazard
- If this is not possible, prevent or minimise exposure to the risk by one or a combination of:
 - Substituting a less hazardous material, process or equipment
 - Redesigning equipment or work processes
 - Isolating the hazard

(Note: These measures may include engineering methods)

As a last resort, when exposure to the risk is not (or cannot be) minimised by other means:

- Introduce administrative controls
- Use appropriate personal protective equipment

6.3 Top Down Planning

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

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

6.4 Hazard Management on Site

Prior to the commencement of the work, including mobilization and site set-up activities, the contractor must demonstrate to the satisfaction of the TPT Project Manager that the contractor has performed hazard identification and risk assessment of the work, and of the associated equipment and facilities, to meet the requirements of the contract. The

contractor is responsible and accountable for ensuring that effective procedures and assessment systems are in place so as to control hazards and so mitigate risks to as lower level as is acceptable and to meet all the Health and Safety management requirements under their Contract.

6.4.1 Project Specific Hazards

The TPT Project Manager along with the TPT appointed H&S Agent has identified specific job-related hazards applicable to the Work under the Contract and has prepared a Baseline Risk Assessment, refer to Appendix C.

The Baseline Risk Assessment forms the basis of the H&S specification, refer to Appendix C.

6.4.2 Risk Assessments (RA's)

- To be completed one week before the execution of a job, and submitted to the TPT Project Manager for approval, to avoid delays.
- Each Contractor must submit a RA plan that will also include a monitoring and review plan.
- Safe Work Procedures and Method Statements to accompany RA's
- Each Supervisor to communicate Job Specific Risk Assessments to every person involved on the job, and workmen must sign acknowledgment the communication of and understanding the risks related to the job and preventative measures and controls
- Generic Risk Assessments will not be accepted
- RA Team to consist of the Contractors' Site Manager, Specific Task Supervisors, and Specialists executing the job, the H&S Agent Registered with SACPCMP, TPT SHERQ Manager and EPCM Project Manager.

6.4.3 Daily Safe Task Instructions (DSTI's):

Each Contractor's Supervisor and Foreman must, on a daily basis before work commences:

- Inspect his work area and complete the checklist part of the DSTI. Complete the DSTI regarding tasks for the shift, specific hazards and specific precautions and also refer to and discuss the precautions and controls of the relevant Risk Assessments
 - Discuss the DSTI with his team
 - The supervisor and his team must then sign the DSTI acknowledging communication thereof
- If the scope of work or job changes, the DSTI is revised and communicated before commencing with changed job.

6.4.4 Planned Task Observations (PTO)

- Each Contractors Supervisor and Foreman will complete and submit at least one PTO daily
- When sub standards are identified RA's is revised and communicated again

Discuss and rectify non-standard actions with employee.

6.4.5 Hazard and Facility Review Studies

Contractors are to conduct Hazard Identification studies and ensure that it is incorporated into the contractor's Design Management Plan and scheduled at appropriate stages of the design process.

Contractors are to make available suitably qualified and experienced personnel to participate in these studies. The TPT and/or TPT's nominated Representative will also participate. Contractors are required to provide all input data for the conduct of the studies.

6.4.6 Hazard Identification and Risk Assessment Workshops

The Contractor must conduct, with appropriate personnel, hazard identification and risk assessment workshops to identify the detailed methodology and related hazardous activities, in particular those with potentially catastrophic consequences such as multiple and single fatalities, of the contractors site installation work scope, for example crane operations and positions, lift sizes, work at height locations, confined spaces locations, work near operational plant, hot work, hazardous substances and dangerous goods being used, etc.

The Contractor are also to conduct, with appropriate personnel, Hazard Assessment workshops to identify the work methodology and related hazardous activities, in particular those with potential for fatality or serious injury, of tasks and activities related to particular work packages or locations. In all circumstances the objective of these risk management processes will be to eliminate hazards or otherwise reduce risks through the hierarchy of controls. These Hazard Assessments to be executed during tender period to provide input for contractor's Method Statements and H&S Management Plans.

6.4.7 Risk Assessment of Plant and Equipment

Risk assessments of plant and equipment are to be undertaken and documented before arrival at site and after major service, after modification, and before use in an unusual operating mode. They are to be undertaken by a suitably qualified and experienced person and to be reviewed and signed by the Contractor Project Manager or Equipment Supervisor.

6.4.8 Standard and Performa Registers

As standard project procedures, the Contractor is expected to:

- Set up an initial set of registers
- Complete the registers for each piece of plant, tool & equipment brought onto site
- Maintain a complete, continuous and comprehensive inspection & service history of these registers

Ensure at least monthly inspections are done and recorded for all plant, tools & equipment by a competent person.

6.4.9 Method Statement

Where required the Contractor must submit Method Statements to the TPT Project Manager or representative and these are to be submitted one week prior to the work commencing, or on request of TPT or the TPT's nominated Representative. The safe work procedure and risk assessment to accompany the method statement.

Acceptance of a Work Method Statement by the TPT Project Manager must not relieve the Contractor of responsibility for ensuring full compliance with Contract specifications and conditions. Specific Method Statements may also be required by legislation.

6.4.10 Critical Hazard Management Plan

Where the Contractor identifies a Critical Hazard, that is one that has the potential to cause multiple fatalities and the exposure is not an isolated occurrence, it must develop a Critical Hazard Management Plan to control the risk. This Plan is submitted to the TPT Project Manager for review and be entered in the Site Risk Register. Journey hazards to and from the Site should be included.

The plan is to be periodically reviewed for applicability and suitability.

6.4.11 Risk Assessment

As described above, prior to the commencement of each work activity or as requested by the TPT or the TPT's nominated Representative, a Risk Assessment (RA) or similar is to be completed and documented. The purpose of the RA is to identify all potential hazards associated with the Work and the Work environment, assess the risk these hazards present and then to provide risk control action that deals with those hazards, as well as providing to the workforce involved in the particular work activity, details of any hazards and the proposed controls.

The documented RA and / or resulting Work Instruction is completed by the work crew and job supervisor, and at least one team member is skilled and experienced in the risk assessment process. Completed RA's are available for review by the work crew, the TPT and the TPT's nominated Representative upon request.

6.4.12 Unsafe Operations

If the Contractor or TPT believes that the work cannot be safely undertaken or that continuance of the work may result in unsafe conditions, it must immediately cease the operation until a safe method of work has been identified. The Contractor must at all times make every effort to control or overcome the cause, or minimize the effect of, any unsafe condition.

6.4.13 Work in Operating Areas

When the Contractor is working in close proximity to operating cranes, roads, access ways or other equipment and a safety hazard has been identified, the Contractor must provide safety watchers as necessary or as directed by the TPT's nominated Representative and must provide, erect and subsequently dismantle all the required barriers, flags, wheel stops, buffer stops, flashing lights or other safety equipment to enable its operations to

proceed in a manner which satisfies the TPT's nominated Representative. At all times, defined access ways are to be kept clear of objects or obstructions which could cause injury to personnel or damage to equipment or plant.

6.4.14 Hazardous Materials

The Contractor must set out its policy for the use, transportation, handling and storage of fuel and hazardous materials taking into account the legislative requirements.

The Contractor must ensure that all hazardous materials and waste products are disposed of in accordance with applicable laws and regulations and any procedures published by the TPT or in the absence of any relevant law, regulation or procedures, in accordance with sound safe practice and by an authorized waste disposal service provider.

6.4.15 Management of Change

The Contractor must develop a Procedure and system to manage the change process. This Procedure and system must address the required processes to ensure that proposed changes do not give rise to unacceptable risk to health, safety, assets and/or the environment.

The change management process must aim to ensure the following:

- Changes are identified and recognised;
- Careful consideration is given to managing the risks associated with any change;
- Due diligence can be shown to have taken place;
- A reduction in the number of unsatisfactory or unnecessary changes;
- Involvement of the relevant people in the change process; and
- all statutory requirements are met

The change management controls must apply having regard to the fact that change may be planned, sudden or gradual.

6.4.16 Construction Regulation

In addition to the TPT Risk assessment requirements above, the contractor must implement and ensure compliance with: Construction Regulation 9 as per the latest legislation CR 2014.

7. Occupational Health and Hygiene

7.1 Intent

Provide adequate occupational health, hygiene and work place facilities and equipment to all TPT personnel and Contractors. Encourage an early return to work program for all injured employees and effectively monitor workplace hazards.

7.1.1 Health and Hygiene Program

The objective of the Project occupational health and hygiene program is to ensure that risks to health are identified and controlled. An occupational health and hygiene program for the Project will be developed and implemented and will include where appropriate:

- Pre-employment medicals which will include but not limited to a blood test and chest x-ray
- Measures against acute health disorders (e.g. food poisoning, displaced disc. etc.)
- Measures against chronic health disorders (e.g. deafness, cancer etc.)
- Recurrent health checks
- Monitoring of the working environment for health hazards
- Ensure cleaning of the employees protective clothing
- Monitoring of personnel who may be exposed to particular hazards; and
- Monitoring of the working environment will include any requirement for survey of likely health hazards such as, for instance airborne particulates, corrosive and caustic chemicals, noise and vibration, manual handling, stress and infectious disease. Cognizance of the TPT Occupational Hygiene Surveys will be required, along with any risks found during these surveys, which might impact on Contractor or TPT employees in the site.

TPT will include in their tender works information, a clause informing the Contractor to appoint a service provider for this activity.

The Program will also make references to TPT Occupational Exposure program.

7.2 Fitness for Work

The Project Fitness for Work Program will be implemented throughout the site. The program will include controlling the risks associated with:

- The consumption of alcohol
- General level of personal fitness and medical conditions
- The effect of drugs (prescription, pharmaceutical or illicit)
- Fatigue; and
- Stress

7.3 Hazardous Substances

The following rules will be implemented for the storing and handling of hazardous and dangerous goods:

- Compliance with local legislation in regard to the storage and handling of flammable and combustible liquids
- Contractors to provide a list of hazardous substances and corresponding Material Safety Data Sheet (MSDS) prior to bringing substances on Site.

- Substance register to be held at each storage facility
- Corrosive materials to be stored and handled in accordance with local requirements
- Fuel, oils and substances in containers of 200 litres or more shall be stored in a bunded area with capacity of at least 110% of stored substance.
- All fuel, oils and substances must be clearly labelled
- Transfer of bulk fuel and handling of hazardous substances shall be conducted only by appropriately trained personnel
- Spill clean-up kits including absorbent materials shall be kept at each storage facility
- Servicing, lubricating and minor mechanical repairs to vehicles and equipment shall only be undertaken in areas nominated by the TPT Construction Manager. The Contractor shall provide appropriate containers to hold waste lubricants, recycling of waste lubricants will be considered prior to disposal.
- Major machinery maintenance shall be performed in an approved workshop.

7.4 Noise and Vibration

A program for the management of exposure to noise and vibration hazards will be developed and implemented for the execution of the Project. The program will include targeted periodic surveys of noise and vibration exposure and monitoring of risk control processes.

7.5 Personal Hygiene

The Project will provide proper amenities to enable the practice of good personal hygiene including toilets; eating facilities separate from work areas; washing facilities close to the workplace and appropriate protective clothing.

Details of the Personal Hygiene Program will be developed and implemented for the execution of the Project in line with TPT Health and Hygiene programs.

7.6 Protection of Outdoor Workers

A program for the protection of outdoor workers will be developed and implemented for the execution of the Project. The program will include the control of exposure to ultraviolet radiation and exposure to heat and cold.

7.7 Occupational Health Services on Site

Details of the Project's occupational health services will be developed and implemented for the execution of the Project. The extent of the occupational health services will be determined by consideration of the occupational health hazards expected at the site, the location of the site, the expected number of people in the workforce; consultation with local medical practitioners, TPT on-site clinic, hospitals and ambulance services; and legislative requirements. The services will include the provision of first aid; on-going injury management; and health assessments and health surveillance where required.

7.8 First Aid

All First Aid injuries will be treated in the first instance by the site First Aid Officer, located on site.

7.9 COVID 19

The Service Provider to ensure full compliance to TPT COVID 19 requirements and Government Safety measures regarding preventing the spread of the COVID 19 virus.

See Appendix B – SHE Specifications

7.10 Off Loading Vehicles

Service provider must ensure that when required to off-load or load any heavy equipment and machinery on the plant that they comply with that equipment or machinery will not be physically operated by an employee when required to off-loaded or load from any flatbed or low bed.

8. Safe Systems of Work

8.1 Intent

Documented Safe Systems of Work shall be developed for all work activities and working environment conditions that have the potential to cause harm to people. Damage to equipment or effect the surrounding community or environment.

8.2 Project Safety Standards

TPT Project Team will monitor specific designated hazardous activities that shall be controlled by site wide mandatory safety standards. Contractors Work Method Statements shall be required to meet these mandatory standards for designated hazardous activities. Designated hazardous activities shall be subject to on-going review of the Project's hazard and risk profiles. The following are Designated Hazardous Activities for which Project Health and Safety Standards shall be prepared:

- Barriers and Barricading
- Change Management
- Confined Space
- Cranes and Lifting Equipment
- Heavy Lifting
- Dangerous Goods and Hazardous Substances

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- Electrical Safety
 - Excavation and Trenching
 - Work at Height
 - Falling Objects
 - Isolation from Hazardous Energy
 - Mobile Equipment and Light Vehicles
 - Permit to Work
 - Hand Tools, e.g. grinders, power tools
 - Site Emergency Management
 - Welding, Cutting and Hot Work
 - Scaffolding
 - Steel erection
 - Respiratory protection
 - Explosive activated hand tools
 - Safe communication
 - Ergonomics
 - Housekeeping practices
 - Fire risk management
 - Hearing conservation
 - Planned Task Observation
 - Designing for safety procedures
 - Managing hygienic facilities
 - Notices and signs
 - Fire protection
 - Building and floors
 - Lighting
 - Ventilation
 - Machine guarding
 - Labelling
 - Fire equipment
 - Pressure equipment

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- Portable electrical equipment
 - Earth leakage relay
 - Personal protective equipment
 - Storage of flammable and chemical explosives
 - Security
 - Training, awareness and competency
 - Written safe work procedure
 - Incident statistics
 - Plant and equipment maintenance
 - Health and safety risk finance
 - Incident recall
 - Health and safety target objectives
 - Health and safety representative
 - Smoking policy

8.3 Project Safety Procedures

In addition to the Project Health and Safety Standards and Procedures shall cover the following activities. Contractors Work Method Statements shall be required to meet the requirements of these health and safety procedures. The following are typical activities to be covered by Project Health and Safety Procedures:

- Incident and Injury Management
- Inductions

8.4 Permits to Work (PTW)

A Permit to Work shall be required for:

- All designated hazardous activities
- All work in designated hazardous areas
- All work where there is an interface with BTS/TPT or other operations effected.
- All hot work; and
- Any other activity assessed as having a potential for personnel injury or damage to plant, equipment or the environment

The client operational representative shall not issue a PTW unless the following have been completed:

- Identification of the hazards

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- Isolations have been carried out and checklist completed
 - Other special permits and their requirements carried out
 - A DSTI for the task has been completed by the work team involved in the task,
 - All those involved in the task has been made aware of the hazards involved

Every person on the job shall sign on to the PTW when commencing and sign off when the job is completed or suspended.

The PTW shall only be valid for the job and conditions specified therein.

8.4.1 Personal Protection

All personnel at the various sites, including visitors, shall use the following minimum personal safety equipment at all times:

- Safety head protection with chin strap (SABS 1451 approved)
- Safety footwear with steel toe protection (Frame type or equivalent)
- Safety glasses with side shields (UVEX type or equivalent) as required
- Hand Protection as required
- Long trousers
- Long-sleeved shirts with cuffs and collars and reflective taping
- High visibility vests or shirts as required
- Suitable protective clothing (Overalls for all employees conducting physical working)
- Depending on the type of activity the following PPE is required:
- Hearing and respiratory protection as required
- Personnel exposed to noise levels exceeding 85dB (A) for any period of time or where signs indicate hearing protection is required to wear (SABS 1451 approved) hearing protection.
- Other personal protection items such as gloves, face shields, leather spats, safety harnesses, aprons or other such items may be specified for use by legislation, the Scope of Work or the Client Representative. Personal protective equipment must also be worn, if recommended by manufacturers or suppliers of proprietary products or equipment.
- All personnel engaged in maintenance and operational activities must use the minimum personal protection applicable at the site

8.5 Public and Company Personnel Safety

Public safety shall be considered and remedial actions identified and implemented when developing all Risk Assessments and DSTI's. Unauthorised persons will be prevented entry to the work site by appropriately securing all work sites at all times

Where practical, signage and/barricading shall be placed at all entrances to work sites advising all unauthorised personnel to report to the site office prior to entering the site.

8.6 Pre-Commissioning Safety Review

The TPT Project Manager, H&S Agent, Client Team and Construction Management Team will ensure that a formal pre-commissioning safety review is performed prior to start-up of the plant.

The pre-commissioning review provides a final checkpoint for the new plant, and is part of the process for ensuring that all necessary actions have been completed. The elements to be considered include:

- Construction and equipment is in accordance with design specifications
- Formal hazard analyses have been appropriately documented and communicated and are available to all personnel
- Recommendations have been addressed and actions necessary for start-up have been completed
- Documentation relevant to any changes has been created/updated
- Safety, operating, maintenance and emergency procedures are in place
- Training of operating and maintenance employees has been completed
- Mechanical integrity systems are in place (e.g. equipment tests and inspections of critical equipment, quality control procedures, and reliability engineering analysis); and
- Safety considerations are checked off

8.7 Commissioning Safety Study

The TPT Project Manager, H&S Agent, Client Team and Construction Management Team will facilitate and coordinate a formal Commissioning Safety Study and ensure that required procedures are prepared prior to commissioning of the facility.

The Commissioning Safety Study will provide a final checkpoint for the new facilities and is part of the process for ensuring that all necessary actions have been completed. The elements to be considered include:

- Mechanical and electrical integrity systems are in place (e.g. equipment tests and inspections of critical equipment, quality control procedures, etc. which will confirm that construction, equipment and materials are in accordance with design specifications)
- Formal hazard analyses for pre-commissioning and commissioning activities have been completed, appropriately documented and communicated, and are available to all personnel
- Punch-list work has been sufficiently completed so that installations are safe to apply hazardous energy
- Documentation relevant to any modifications has been created/updated
- Safe operating, maintenance and emergency procedures are in place

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- Operating and maintenance manuals are available and training of commissioning employees has been completed
 - As Built drawings are available; and
 - A Commissioning Permit (to apply hazardous energy) is developed and implemented.

TPT Project Manager will ensure that after commissioning there is a formal documented hand over to operations and maintenance personnel and others who will be impacted by hazards that have been identified during project activities. This will involve communication of any changes to the process hazards, procedures and operating philosophy.

Safe systems of work will be established and updated throughout the Project. Safe systems of work will be subject to on-going review to ensure their effectiveness. Site-wide Permits to Work will be used as the basis of safe systems of work for specified hazardous activities.

8.8 Detailed Requirements

The Project Health and Safety Specification provide detailed requirements in relation to Safe Systems of Work and they are not repeated here, but are considered to be of the TPT Safety Management System to be implemented on the Project.

9. Incident Management

9.1 Intent

The identification, reporting, investigation and analysis of all incidents and/or accidents shall be undertaken. The development of appropriate corrective actions and the distribution of key learning's aimed at preventing recurrence, will be undertaken.

9.2 Incident Management

A Project wide procedure for management of incidents will be developed and implemented for the execution phase of the Project, taking into account the existing TPT Incident Reporting and Investigation Procedure TPT SLDT SHEQ-RS PRO 016.

All contractors will be responsible for reporting, investigating and implementing remedial actions for incidents involving their personnel. TPT Project Manager will have active involvement in most incident management processes.

The Project will maintain a database of all incidents and contractors shall provide copies of all incident reports and investigation documentation for entry into the database and audit and review purposes.

All incidents, no matter how insignificant, must be reported and investigated to prevent further similar incidents from occurring. The following incidents must be reported and investigated as minimum as per the TPT Incident Reporting and Investigation Procedure TPT SLDT SHEQ-RS PRO 016:

- Incident resulting in a First Aid Treatment to any person

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- Incident resulting any person having to seek Medical Treatment
 - Illness or injury that results in restricted work duty or days lost
 - Incident which has or could have resulted in damage to property and/or the environment
 - Incident that had the potential to result in any of the above

9.2.1 Incident Reporting

All incidents must be reported immediately to the supervisor in charge. The supervisor will undertake an initial assessment of the incident and determine the notification process required in accordance with the Project incident management procedure.

Contractors' shall have an incident reporting system that is consistent with the Project standards and all applicable statutory requirements.

The Project Safety Discipline Lead shall have the right to designate a representative to participate in the investigation as required.

Where required by statutory requirements the Contractor shall be responsible for incident reporting to the appropriate Authority.

The contractor must immediately notify the TPT representative, of all types of incidents which occur, immediately. A flash report to be distributed to TPT within 24 hours of the incident.

9.2.2 Incident Investigation

Investigations must take place as soon as possible after the incident has occurred. The investigation team should consist out of the TPT Project Manager, H&S Agent and other identified personnel. All incident investigations are to focus on identifying the causes of the incident so that appropriate remedial and preventative control measures can be identified and implemented.

Where the results of any investigation are not completed and issued to the Project Safety Discipline Lead within 24 hours from the time of occurrence, the Contractor shall supply to the Project Safety Discipline Lead a written update every 24 hours of the progress and results of the investigation until such time as the incident report has been fully completed and issued to the Project Safety Discipline Lead as well as TPT Representative.

9.2.3 Incident and Investigation Reports Review

Upon completion of the investigation the findings and recommendations shall be distributed to the relevant crews for discussion at a toolbox meeting.

All incidents and the results of the subsequent investigation are to be tabled and reviewed at the next Project Safety Team meeting.

9.3 Injury Management

Workplace injury management including rehabilitation will be a managed process involving early provision of necessary and reasonable service. It includes suitable duties, when

practicable, to ensure the worker's earliest possible return to work, or if return to work is precluded, to maximise the worker's independent functioning.

Injury Management on the Project will meet the requirements of the Project Incident Reporting and Investigation guide-Injury Management and will include:

- Prevention
- Early Intervention
- Early Return to Work

9.4 Emergency Preparedness and Response

Emergency response plans will be prepared for construction, commissioning, and operation of the Project before each activity begins. These plans will ensure early notification of any incident.

The Project Emergency Response Plan will include the following and as per TPT IMS SLDSHEQ-SOP 013 002 Emergency Preparedness and Response Plan :

- Describe how the emergency response is initiated and how the emergency teams are activated
- Specify command, control and communications arrangements
- Identify the roles and responsibilities of all personnel likely to be at the site or the emergency or involved in the response
- Include a person nominated as the site Emergency Control Officer; and
- Identify emergency equipment available and personnel trained in its use

TPT Project Team will ensure that coordinated plans are prepared by contractors and vendors to cover all activities on the project. These plans will be prepared in consultation with TPT Project Team, contractors/vendors and local emergency services.

10. Designing for Safety and the Environment

10.1 Intent

The identification, reporting and analysis of hazards shall form part of the design process, should designs be required. Construction, maintenance, commissioning and decommissioning shall be considered during the design phase. Environmental issues as they affect the site/project shall be identified assessed and any control measures introduced shall be monitored for effectiveness.

The design phase (if applicable) will build on the hazard identification and evaluation as design progresses. Risk mitigation measures identified in the preliminary safety risk register will be used as a basis for design. The five-fold hazard and risk management process will be applied during the design process. Hazard studies will be scheduled as

appropriate for a particular work package or area of work and may include some or all of the methods covered in this section.

10.2 Designing for Safety

10.2.1 Hazard Assessment during Design

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

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

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

Contractors and vendors with design responsibilities shall be required to incorporate an appropriate and agreed level of hazard and risk management during the engineering design phase, which will incorporate the principles of the sequential steps listed above.

10.2.2 Hazard Register

An important output of the hazard identification stages will be the production of a Hazard Register safety risk management and will act as a 'road map' for all safety risk assessments carried out in the course of the Project. Any information considered to be relevant to the operations, will be continuously updated as a live document throughout the design and which will be available for review by all Project members. This document will serve as the basis for stage of the Project and will be carried forward in the Hazard Register. The Hazard Register is an integral part of the Project Risk Management System.

10.2.3 Design Phase SAFETY Risk Management Milestones

Design phase (if applicable) safety risk management milestones will be identified and included in the project schedule. Typical milestones may include:

- Hazard studies
- Design reviews

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- Key design and/or calculation verification
 - Resolution of identified critical hazards; and
 - Periodic review of the overall designing for safety program

10.2.4 Management of Change

The impact of design changes on safety risks will be documented and understood. All requests for changes will be reviewed and approved to ensure that all modifications are analysed systematically and implemented in a manner that does not present an unacceptable risk to health, safety, the environment or the community.

The change management process will be done in accordance with the Project Change Management Procedure.

11. Appendices

11.1 Appendix A – IMS Commitment Statement

11.2 Appendix B - Specific Health & Safety Specification Z.5200160-SSHSS

11.3 Appendix C – Baseline Risk Assessment

11.4 Appendix D - Client Safety Agent Appointment

11.5 Appendix E - Construction Work Permit