



KWAZULU-NATAL PROVINCE

AGRICULTURE AND RURAL DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

SITE SPECIFIC HEALTH AND SAFETY SPECIFICATION

DESIGNED AND PREPARED

FOR

**INSTALLATION OF SUB-SURFACE DRAINAGE AT MAKHATHINI
IRRIGATION SCHEME, BLOCK 6 AT UMKHANYAKUDE DISTRICT**



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1. Purpose

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa frequently enters into contracts with Construction Contractors for the construction of bulk potable and waste-water infrastructure projects. This document describes the requirements of compliance to which the Principal Contractor/Contractor are to adhere to in relation to the scope of works.

This document defines the minimum management requirement that is to be implemented by the Principal Contractor/Contractor(s) for the management of Health and Safety on any KwaZulu Natal Province-Agriculture and Rural Development Republic of South Africa project.

The aim of this document is to present the health and safety aspects that need to be controlled and managed on the project.

This Site Specific Health and Safety Specification identifies and encompasses the working behaviours and safe work practices that are expected of all employees, Vendors and Contractors, Sub-Contractors and Visitors, engaged on Construction Of SUB-SURFACE DRAINAGE AT MAKHATHINI IRRIGATION SCHEME Within BLOCK 15 AT UMKHANYAKUDE DISTRICT

Providing a guideline to comply with best Health & Safety practices and the Occupational Health and Safety Act 85/1993 as amended, including reference to applicable legislative requirement.

2. Scope

Contractors and Service Providers are required to read and take note of the requirements within this specification and ensure that they provide the required budget for stipulated safety requirements

This specification applies to Construction of SUB-SURFACE DRAINAGE AT MAKHATHINI IRRIGATION SCHEME Within BLOCK 15 AT UMKHANYAKUDE DISTRICT H Construction Site. This Specification defines the strategies to manage Health & Safety.

3. Definitions

The following definitions will apply to the Safety Management Plan, acronyms given hereunder shall apply:

3.1 Construction Work (as defined by the Occupational Health and Safety Act: Construction Regulations 2014):

Means any work in connection with –

- a) the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure; or
- (b) the construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work;

3.2 Hazard Identification and Risk Assessment and Risk Control (HIRA)

Means a documented plan, which identifies hazards, assesses the risks and detailing the control measures and safe working procedures, which are to be used to mitigate and control the occurrence of hazards and risks during construction or operation phases.

3.3 "construction site"

Means a work place where construction work is being performed.



3.4 The Act

Means, unless the context indicates otherwise, the Occupational Health and Safety Act, 85 of 1993 and Construction Regulations 2014 promulgated there under, (OHSA).

3.5 Hazard

Means a source of or exposure to danger (source which may cause injury or damage to persons or property).

3.6 Risk

Means the probability or likelihood that a hazard can result in injury or damage.

3.7 Management and Supervision of Construction Works

3.7.1 "Construction Manager"

Means a competent person responsible for the management of the physical construction processes and the coordination, administration and management of resources on a construction site.

3.7.2 "Construction Supervisor"

Means a competent person responsible for supervising construction activities on a construction site.

3.8 Hazardous Chemical Substance (HCS)

Means any toxic, harmful, corrosive, irritant or asphyxiant substance, or a mixture or substances for which an occupational exposure limit is prescribed, or an occupational exposure limit is not prescribed, but which creates a hazard to health.

3.9 Construction Plant

Encompasses all types of plant including but not limiting to, cranes, piling frames, boring machines, excavators, dewatering equipment and road vehicles with or without lifting equipment.

3.10 Contractor

Means an employer who performs construction work.

3.11 Health and Safety Program

Means the documented program which addresses hazards identified and includes safe work procedures to mitigate, reduce or control the hazards identified.

Health and Safety Plan (HSP)

Means a site, activity or project specific documented plan in accordance with the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa health and safety specification.

3.13 Health and Safety File

Means a file, or other record containing the information in writing required by Construction Regulations 2014.

3.14 Agent

Means in terms of Construction Regulations, 2014, 'a competent person who acts as a representative for a KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa and in this instance will generally include an officer representing KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa who has been assigned a safety portfolio.

3.15 KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa

Means any person for whom construction work is being performed.

3.16 Competent Person



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Means any person having the knowledge, training, experience and where applicable, qualifications specific to the work or task being performed:

- a) Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualifications Framework Act, 2000 (Act No. 67 of 2000), those qualifications and training must be regarded as the required qualifications and training; and
- b) Is familiar with the Act and with the applicable Regulations made under the Act.

3.17 Demolition Work

Means a method to dismantle, wreck, break, pull down or knock down of structure or part thereof by way of manual labour, machinery, or the use of explosives.

3.18 "Construction supervisor"

Means a competent person responsible for supervising construction activities on a construction site.

3.19 "Construction Work Permit"

Means a document issued in terms of Regulation 3.

3.20 "fall prevention equipment"

Means equipment used to prevent persons, tools or machinery from falling from a "fall risk" position, including personal protective equipment, body harness, body belts, lanyards, lifelines or physical equipment, guardrails, screens, barricades, anchorages or similar equipment.

3.20.1 "fall risk" means any potential exposure to falling either from, off or into.

3.20.2 "fall protection plan" means a documented plan which includes:

- a) all risks relating from a fall risk position, considering the nature of work undertaken;
- b) the procedures and methods to be applied in order to eliminate the risk; and
- c) a rescue plan and procedures.

4. References

1. SHE Guideline 5-43-1 Rules for Contractors on Site
2. Compensation for Occupational Injury and Diseases Act, 130 of 1993
3. Explosives Act, 15 of 2003.
4. Occupational Health and Safety Act, 85 of 1993
5. Asbestos Regulations, 2002 [GN R.155 2002]
6. Construction Regulations, 2014 [GN R.84 07/02/2014]
7. Driven Machinery Regulations, 1988 [GN R.295 1988]
8. Electrical Installation Regulations, 2009 [GN R.242 2009]
9. Electrical Machinery Regulations, 1988 [GN R.1593 1988]
10. Environmental Regulations for Workplaces, 1987 [GN R.2281 1987]
11. Explosives Regulations, 2003 [GN R.109 2003]
12. Facilities Regulations, 2004 [GN R.924 2004]
13. General Administration Regulations, 2003 [GN R.929 2003]
14. General Machinery Regulations, 1988 [GN R.1521 1998]
15. General Safety Regulations, 1986 [GN R.1031 1986]
16. Hazardous Biological Agents Regulations, 2001 [GN R.1390 2001]
17. Hazardous Chemical Substances Regulations, 1995 [GN R.1179 1995]
18. Lead Regulations, 2002 [GN R.236 2002]
19. Major Hazard Installation Regulations, 2001 [GN R.692 2001]
20. Noise Induced Hearing Loss Regulations, 2003 [GN R.307 2003]
21. Pressure Equipment Regulations, 2009 [GN R.734 of 15 July 2009]



5. Requirements

5.1 Leadership and Commitment

The Contractor acknowledges the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa strong commitment to Health and Safety and the Contractor affirms that it has a written Health and Safety Policy, supporting KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Health and Safety management policy that has been signed, and is actively supported and endorsed by the Contractor's management. The Contractor represents that its written policy is widely disseminated and understood among its employees, and that its policy includes a description of the Contractor's organization, procedures and methods of communication to and from personnel. The Contractor must provide copies of its policy and policy statement to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa upon request.

5.1.1 Legal Requirements and Regulations for Health and Safety

The Contractor warrants that it is familiar with the contents and implications of the applicable Legislation (latest reprints), codes of practice, guidelines and standards applicable to the services to be provided.

The Act and the Regulation, where applicable, require development and implementation of Work Method Statements for a range of high-risk construction activities and prescribed demolition activities, which, where applicable, the Contractor must develop and implement.

The Contractor must ensure that its personnel and its subcontractor's personnel have been informed of all such laws, Acts, regulations, codes of practice, guidelines and standards.

Conspicuously display the Department of Labour Construction Permit Number (where applicable) at the entrance to the site (i.e. on the main gate to the site office area and to the main entrance onto the construction area). Where the site is spread over a long distance (e.g. on road works, etc.) then display the Permit number at the main entrance to the site camp area.

5.1.2 Contractors' General Requirements for Health and Safety

The Contractor is solely responsible for carrying out the work under the Contract having the highest regard for the health and safety of its employees, the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa employees and persons at or in the vicinity of the Site, the Works, temporary work, materials, the property of third parties and any purpose relating to the Contractor carrying out its obligations under this Contract.

The Contractor must initiate and maintain safety precautions and programs to conform to all applicable Health and Safety laws or other requirements, including requirements of any applicable government instrumentality and KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa corporate, business unit and site requirements. The Contractor must, at its own cost, erect and maintain safeguards for the protection of workers and the public. The Contractor must manage all reasonably foreseeable hazards created by performance of the work. The Contractor must:

- Provide all things and take all measures necessary for maintaining proper personal hygiene, ensuring safety of persons and property and protecting the environment at or near the Site
- Avoid unnecessary interference with the passage of people and property at or near the Site
- Prevent nuisance and excessive noises and unreasonable disturbances in performing the Services
- Be responsible for the adequacy, stability and safety of all of its site operations, of all its methods of design, construction and work and be responsible for all of the work, irrespective of any acceptance,



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recommendation or consent by the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa , its Contractors, employees, agents and invitees, or any Government Body

- Costs for the above are borne by the Contractor
- The Contractor must comply and is responsible for ensuring that all of its Sub-contractors comply with the relevant legislation(s) and statutory regulations for health and safety, the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Health & Safety requirements included in the Contract and other document pertaining to health & safety contained in the Program Health & Safety Management System and include standards, policies, procedures, guidelines and safe work instructions.

5.1.3 Contractor's Health and Safety Management Plan

The Contractor must prepare, implement and administer the Contractor's Health and Safety Management Plan. The Plan is in writing and forwarded prior to mobilisation to the construction site for work under the Contract, to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Agent for review. The Health and Safety Management Plan must comply with this Contract including.

Project Site Rules & Requirements, and applicable law relating to workplace health, safety and environmental standards. Any proposed amendments or revisions to the Contractor's Safety Management Plan is submitted to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa for acceptance.

The Health and Safety Management Plan must provide a systematic method of managing hazards according to the risk priority, and must include all mobilisation and site set-up activities.

The Plan will be audited for completeness by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated representative using an audit tool, and a score of 80% will be required before it will be "accepted with comments".

The Plan is presented and at least "accepted with comments" by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa BEFORE permission will be granted to the Contractor to mobilise to site.

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

5.1.3.1 Legal & Site Specific Requirements

The Contractor shall develop, implement and administer Health & Safety Plan. The plan shall be in writing and shall be submitted to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Agent within 7 days of the contract being awarded no work may commence on site without the written permission of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa included in the written permission shall be a copy of the construction Permit.

The Contractor shall sign the construction permit application within 7 days of the contract being awarded

The plan shall demonstrate management's commitment to safety and include, but not be limited to, the following minimum auditable elements:

- The Contractors' Safety Policy. (OH&S Act - Section 7.)



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- How safety responsibilities are assigned to different roles within the organisation. Identification of role of Safety Coordinator, and on site agent/managers. (**OH&S Act - Section 8, Construction Reg.8**)
- Selection, placement and training procedures, including induction and ongoing training in 'Basic Safe Work' and Occupational Health & Safety training for newly hired or promoted supervisors. (**OH&S Act - Section 8.**)
- Occupational Health & Safety communications and meetings, including daily safe task instructions and project safety meetings. (**OH&S Act - Section 19 & 20**)
- Assessment of sub-contractors and Service Providers, including requirements for Health & Safety Plans.
- Safety awareness promotions.
- Nomination of personnel to carry out safety inspections. The task may be shared with other duties and provided within the resources of individual gangs and may be rotated.
- Contractor senior management involvement with Company's staff in consultative processes & daily management Safety walkabouts.
- Occupational Health & Safety Workplace Environment, including provision for monitoring employee exposures to noise, dust, etc. (**OH&S Act – Environmental & Facilities Regulations**)
- Rules and regulations including safety procedures the Contractor has in place for recurring work activities
- Personal protective equipment rules. (**OH&S Act – General Safety Regulation 2**)
- Control of dangerous and hazardous substances. (**OH&S Act – Hazardous Substance Regulations**)
- System of hazard identification and risk control, such as Risk assessments, Daily Safe Task Instructions and communication. (**OH&S Act – Section 8, Risk Assessment, Construction Reg.9**)
- Design control (if applicable) (**OH&S Act – Section 10**)
- Verification procedures including: (**OH&S Act - Section 8**)
- Monthly internal safety audits to ensure compliance with Health & Safety Plans
- Daily site safety inspections and audits. The auditing role may be shared with other duties or provided within the resources of individual groups. The role may be rotated.
- Inspection of plant, tools and equipment prior to introduction to site and at least monthly thereafter
- Accident/incident reporting, recording, investigation and analysis, which ensure that corrective action, are taken and this action is communicated to report initiators. (**OH&S Act – General Administrative Regulations 6**)
- Evacuation and emergency planning (**OH&S Act – Environmental Regulation 9**)
- Rehabilitation procedures that encourage an early return to work
- Record keeping, including details of what is kept and for how long

5.1.3.2 Hazard Identification, Risk Assessment and Risk Control

- The development of a project/work scope and activity risk profile identifying and considering, safety, health and environmental hazards and exposures, for example, rigging, working at height, welding, confined spaces, delivery Contractors, unloading materials and equipment from trucks, hazardous substances, etc.
- How controls to manage risks identified within the risk profile will be formalised and implemented



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- Personal Protection Equipment
- The hazard identification and risk assessment process for specific operations and activities and for new activities identified after the development of the project/work scope and activity risk profile. (Considers methodology, expert advice and selection of participants)
- The process to be used to review the effectiveness of risk controls
- Workplace hazard inspections
- The implementation of a safety observation (behaviour audit) and coaching process conducted as a minimum by persons in leadership roles
- Method by which daily activities will be assessed for hazards and controls defined before work commences
- Contractor will carry out inspections and maintain requests of the identification of and implementation of inspection and maintenance controls for plant, mobile plant, equipment and tools requiring formal management, including and not limited to:
 - o Vehicles
 - o PPE
 - o Ladders
 - o Pressure vessels
 - o Elevated work platforms
 - o Portable electrical equipment
 - o MSDS Register and Information
 - o Authorised Isolators and Lock holders
- Process for identifying, developing and communicating site rules and standards.
- Control of dangerous and hazardous substances

5.1.3.3 Policies Mandated by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa will require all Contractors on the project to comply with and/or achieve the objectives of the following:

- Health & Safety Policies and Standards
- Health & Safety Policies and procedures
- Safety Management System and procedures
- The Project Health and Safety Management Plan
- KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative's Safe Operating Procedures evolving from project risk assessments and included in the project Safety Management Plan and the Project Site Rules

5.1.3.4 Injury Management



- Processes to ensure employees are medically fit and suited to perform their functions safely
- An incident reporting and investigation structure including root cause establishment and corrective action taken
- Experienced / trained investigators on all projects
- A process to review the effectiveness of incident investigation action plans
- The conducting of first – aid needs and emergency response risk assessments
- A return to work program (restricted duties)
- A rehabilitation program
- Trauma counselling
- Processes to ensure the appropriate authorities are notified in the event of a reportable incident

5.1.3.5 Health and Safety Communication and Consultative Processes

- How project leadership will ensure all personnel are kept regularly up to date with Health and Safety information and how prompt feedback will be given to personnel for issues they raise. For example, hazard reports
- The establishment and maintenance of a consultative process for the duration of the project
- Daily pre-start discussions that encourage staff and leaders to try to anticipate and pre-empt potential hazards within the day's activities along with "Toolbox" meetings and project safety meetings
- Implementation of improvement programs that encourage and recognise personnel suggestions to enhance Health and Safety on site
- Health and Safety publicity and awareness programs. For example, competitions and lifestyle improvement
- Attendance at site safety meetings by Project Manager, Safety Manager and Safety Representatives. (To be elected and appointed per work area and discipline and comply with the **Act Section 17 & 18.**)

5.1.3.6 Education, Training and Competency

- Identification of the competencies required by employees along with selection, placement and any training requirements
- Identification and implementation of the process that will be used to ensure that employees hold the required competencies
- The identification of minimum core and Health and Safety skills required by persons in leadership and supervisory roles
- Identification, assessment and management of hazards
- The development of a training and development plan that ensures personnel attains the desired skills and is also able to monitor refresher-training requirements
- Mechanisms to review the effectiveness of training where appropriate



- A site induction and orientation system that includes specific site issues and requirements and complements the General Induction
- Methodology for briefing personnel on new or changed standards, site rules and or procedures, particularly after absence from site
- Compliance with KWAZULU NATAL PROVINCE- AGRICULTURE AND RURAL DEVELOPMENT REPUBLIC OF SOUTH AFRICA training and competency requirements

5.1.3.7 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 employee's exposure to noise, dust etc.
- Inspection and acceptance of plant, equipment, tools etc. prior to introduction to site and regularly thereafter

5.1.3.8 Health and Safety Alignment Meetings

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative will hold a Health and Safety alignment session with contractor who has been awarded the tender. The Tenderer's senior project and proposed site management personnel must attend.

This session will be focused on the contents of the HSE specification in relation to the expectations of the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa and the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative with regard to the Tenderer's Health and Safety leadership and project Health and Safety management proposals.

The aspects of the Contractor's tender that are unclear or sections of the Tender Document that have been missed or not fully understood and may need further explanation, will be discussed and resolved.

At the end of the session, the Contractor will have a complete and unambiguous understanding of the requirements with respect to the management of Health and Safety during the project works and KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa will fully understand what the Contractor has included in his tender.

After award of the Contract and prior to work commencing, the Contractor must participate in a Kick-Off Health and Safety review and alignment session with KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated representative. The purpose of this review and alignment session is:

- To compare the contents of the Contractor's Health and Safety Management Plan and the Project Health and Safety Management Plan.
- To facilitate a consistent approach to Health and Safety issues.



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- To ensure specific Health and Safety risks are addressed prior to commencement.
- To align all parties on the program Health & Safety Goals, expectations, and requirements pertaining to Health & Safety.
- To arrange training to the Contractors Site Management team regarding Construction Safety Leadership.
- Provide information on the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa 's specific Health & Safety Site Rules and Requirements.

The Contractors' Project Manager and Project Sponsor or equivalent, and Senior site representative, site leadership must attend the above meetings, alignment and training sessions. The meetings, alignment and training sessions will be conducted prior to the Contractor commencing activities on the Site, including mobilisation and site set-up activities.

The Contractor must not commence any site activities until written acceptance (at least "accepted with comments") of the Contractor's Health and Safety Management Plan is obtained from KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Agent.

Contractors are responsible for qualifying all Sub-contractors using this system. Sub-Contractors approved for work will be forwarded to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa review and comment. The contractor will keep this list up-to-date and will provide monthly updates to the status of Sub Contractors engaged by the principal contractor.

5.1.4 Site Supervision

The contractor shall comply with OH&S Act – Section 8, 9, 13 and 16 and the Construction Regulations 2014

The Contractor must nominate and appoint a responsible person on site to whom KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa may refer in connection with the Works. Persons are nominated for all shifts worked or whilst any activity relating to the Contract is being performed on site, and must have the authority to bind the Contractor with respect to the Contract. **(OH&S Act - 16 Section (2)).**

The Contractor must ensure that the performance of all specified Works is supervised throughout by a sufficient number of qualified and competent appointed representatives of the Contractor, who have experience in the type of work specified. **(OH&S Act – Construction Reg. 8 (1) and 8. (2.)**

Note: No work may commence and or continue without supervisory Appointees present on site.

The Construction Manager must be equipped with a mobile telephone with message bank and/or pager or an equivalent communication device so that communication throughout the Contract can be maintained at all times.

The Construction Manager must provide a list of names and contact telephone numbers of all Contractors and Sub-Contractor's contact persons on Site. This list is updated as a new Contractor or Sub-Contractor employee commences on Site.

The Construction Manager must keep a record of all employees, including date of induction, relevant skills and licenses, and be able to produce this list at the request of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

The Construction Manager must complete and issue to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative manning sheets describing the day's activities, labour numbers and classifications prior to 9.00 am on a daily basis.



KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative is notified of any new starter with evidence of induction and site specific induction prior to commencement of work.

5.1.5 Contractor's Construction Health & Safety Officer

The Construction Health & Safety Officer must be appointed in terms of the Occupational Health and Safety Act and must be on site when work commences and be present until all activities for the day (Including sub-Contractors) are finished.

Construction Health & Safety Officer is to be registered with the SACPCMP or show proof of application for registration in progress.

Construction Health & Safety Officers are appointed in the following ratio:1 :100 (Total number of people to include sub-Contractors).

49 or less people on site – Part-time Safety Officer spending half day (4.5 hours) on site 5 days a week.

50 people on site and up to and including 150 people - Full time Construction Health & Safety Officer.

Full time Construction Health & Safety Officer is required for night shift(s) or weekend public holiday work.

More than 150 people on site a full time Construction Health & Safety Officer for every 150 (e.g. 350 = 2 / 690 = 4 etc.)

Where two or more safety officers are appointed one of the safety officers shall be appointed as the Senior Safety officer charged with health and safety management of the site

The Contractors' Construction Health & Safety Officer is responsible to assist with legal compliance for his 16 (2) Appointee and Construction Manager 8(1). He must report functionally to the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Agent for the project. He is equipped with a phone and a PC to ensure his duties and functions can be met.

The Safety Officer must have the following minimum qualifications:

- Registration with SACPCMP (or proof of submission then an evaluation shall take place to ensure the candidate meets the requirements)
- At least 5 years' experience as a Safety Advisor on construction projects.
- Successful completion of a Supervisors training course.
- Sound knowledge of the Occupational Health and Safety Act 85 of 1993 and Regulations including the 2014 Construction Regulations
- Qualification in hazard identification, risk assessment and risk management processes (HIRA).
- Sound knowledge of incident causation phenomena
- Qualification in accident/incident investigation procedures (Such as IRCA's Route Cause Analysis (RCAT), etc.).
- Valid First Aid Certificate level 2.
- Valid SAQA Accredited Fall Arrest Certificate (where required for inspections to be carried out from a fall risk position).

Prior to work commencing, Contractors must submit a CV of their proposed Site Construction Health & Safety Officer to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Health & Safety Program Manager for an interview and approval.



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The Contractor must notify KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa in writing of the name, qualifications, duties and responsibilities of the Construction Health & Safety Officer proposed. Approval is obtained from the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa , and the person is appointed and mobilised, prior to the Contractor mobilising to Site.

In the event that a Construction Health & Safety Officer disobeys direct Health & Safety Instructions, condones unsafe acts or conditions on site (either willingly or otherwise), from the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Health and Safety Agent, he/she can be removed from the project.

5.1.6 Fall Protection Planner

For all working at heights the contractor shall appoint a Fall Protection Planner.

The Fall Protection Planner shall have the following qualifications as a minimum:

- Fall Arrest Course (Accredited SAQA Unit Standard 229998)
- Fall Protection Planner (Accredited SAQA Unit Standard 229994)
- A designated member "Fall Protection Planner" in good standing with a professional body (such as the Institute for Working at Heights, IWH).
- Valid Medical Certificate of Fitness with Annexure 3.

The Fall Protection Planner shall determine what site specific appointments are required e.g. Fall Protection Officer, Fall Arrest Worker, Fall Protection Equipment Controller, etc.

The Fall Protection Plan must be drafted in accordance with the requirement of the Fall Protection Planner course (SAQA Unit Standard: 229994), taking into account any changes in the industry best practices, and will be assessed by the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Health & Safety Agent. A copy of the "Fall Protection Plan Check Sheet –Rev0: (See Annexure 6) that will be used by the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Health & Safety Agent to assess the contractors Fall Protection Plan is available on request, and the Contractors Fall Protection Plan must be fully compliant with this "Fall Protection Plan Check Sheet - Rev0".

5.1.7 Contractors' Safety Manual

The Contractor must provide both electronic and hard copies of its safety manuals, policies and procedures to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa and must ensure that its personnel, at all times, strictly observe and comply with the procedures set out therein. KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative may from time to time request safety procedures applicable to the area of operations. The Contractor must forward to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa any updates or revisions to its safety manuals, policies or procedures as soon as practicable following revision or update.

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa may require the Contractor from time to time to supplement its safety manual, policies and procedures with guidelines and/or operating standards provided to the Contractor by the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa . The Contractor must comply with such requests where the request is consistent with the requirements of the Contract. The Contractor must give prompt written notice



to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa of any objection to the requested supplement, including the reasons for objection. The KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa rights under this Clause are not intended, and must not be construed, to relieve the Contractor from any obligations to ensure compliance with all provisions of this Contract.

5.2 Performance Measurement and Reporting

5.2.1 Health and Safety Statistics

The Principal Contractor/Contractor must ensure injury and incident records (Near misses/Hits, First Aid, Medical Cases, Disabling Lost Time Incidents, Accident Frequency Rates, Accident Incidents Rates, Disabling Injury Severity Rate/Accident Severity Rates), training etc. referred to above are kept on site and submitted monthly to the Engineer. All documents shall be made available to the Engineer for inspection including the Department of Labour's Inspectors as required by OHS&A.

The statistics formula as listed below shall be adhered to during construction:

$$\text{DIFR (Disabling Injury Frequency Rate)/} \frac{\text{Total number of DI's in a period}}{\text{Total Number of Man-Hours worked in a period}} \times 100,000$$

AFR (Accident Frequency Rate)

$$\text{DISR (Disabling Injury Severity Rate)/} \frac{\text{Total number of Days Lost in a period}}{\text{Total Number of Man-Hours worked in a period}} \times 1000$$

ASR (Accident Severity Rate)

$$\text{AIR (Accident Incidence Rate)} \frac{\text{Number of Defined Accidents}}{\text{Average Number Employed}} \times 1\,000$$

5.2.2 Safety Management Records

The Contractor must submit to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa for acceptance a schedule of the specific Health and Safety records it intends to maintain for the Contract. As a minimum, such records are as specified by applicable legislation. Copies are provided to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative if requested.

5.2.3 Field Technical/Safety Audit by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative have the right to conduct audits/inspections of the Contractor's Safety Management Plan implementation, operations, equipment, emergency procedures, etc. at any time, and the Contractor must fully cooperate with KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative during such audits/inspections. The KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa rights under this clause do not/must not and will not relieve the Contractor of its own obligations to conduct audits and reviews of its own Health and Safety performance.



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Where such audits/inspections reveal deficiencies in the Contractor's procedures, drills, training or equipment, or non-conformities with the Contractor's accepted project Safety Management Plan, of a minor nature (Risk Rating of 6 or less), the Contractor must investigate the cause of the nonconformity and initiate corrective and preventive action to rectify such deficiencies and non-conformities and prevent recurrence as soon as practicable.

Where such audits/inspections reveal deficiencies of a major nature (Risk rating of 7 or greater), the Contractor **must stop work on the operation/activity concerned, immediately investigate the cause of the nonconformity, and initiate corrective actions to rectify such deficiencies and non-conformities and to prevent recurrence.** This corrective action plan is submitted to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa for review and comment within 24 hours of the audit finding.

Where such deficiencies include an unsafe practice or a breach of the statutory or the Contract's requirements, KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative **may in accordance with the General Conditions of Contract suspend the work associated with the unsafe practice or breach until the deficiency is rectified.**

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative will establish a schedule of regular field safety audits which will be based on an audit tool aligned to the Contractor's Safety Management Plan and site operations and activities. The 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 must develop and implement an action plan within 4 weeks, 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 2 weeks, and a follow up audit will be carried out. **Where the Contractor's conformance is less than 75% the Contractor must stop work until an investigation of the cause/s has been completed and corrective actions have been developed and implemented by the Contractor.**

The Contractor must provide to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative, at a time to be agreed, not to exceed monthly intervals, a regular status report on all outstanding corrective actions until they are successfully closed out.

5.2.4 Unsafe Act/Condition Auditing

The Contractor must implement a system to recognise, correct, and report unsafe acts/conditions (Unsafe Act/Condition Auditing) associated with all Site activities.

5.3 Involvement Communication and Motivation

The Contractors' and subcontractor's workforce must, through their supervision, safety notice boards, toolbox meetings and daily pre-start meetings be kept aware of safety related matters.

5.3.1 Safety Meetings

The contractor must implement and comply with OH&S Act, Section 19

The Contractor must conduct weekly safety meetings with his employees to foster safety awareness. Copies of minutes and action items arising from such Toolbox meetings is submitted or otherwise made available for review by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative.

Such meetings should at least address:



- Accident / safety incidents
- Hazardous conditions
- Hazardous materials / substances
- Work procedures
- Protective clothing / equipment
- Housekeeping
- General safety topics
- Job or work look-ahead issues
- Safety statistics
- Significant Safety Occurrences (SSO)

The Contractor must conduct at least one formal safety meeting per month and must maintain appropriate records of attendance and meeting content. Such records are made available to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

In addition to Daily Safe Task Instructions, the Contractor must conduct at least weekly "tool box" meetings to discuss safety issues and procedures.

5.3.2 Pre Start Safety Briefings

The Contractor must hold documented Daily Safe Task Instructions with each work team before the start of each shift. Attendance records and brief topic notes is kept for auditing and record purposes.

5.3.3 Safety Review Meetings

The Contractors' Site Manager and a Site Safety Representative must take part in weekly safety review meetings between the Contractor's and KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative.

The Contractor must attend all project safety meetings as outlined in the Project Safety Management Plan.

5.3.4 Employee Health & Safety Representative

In all cases where 20 or more people work on a project, a Health and Safety Representative shall be elected and appointed, as described in the OHS Act Section 17 and General Safety Regulations 6 and 7, at a rate of one Health and Safety for every 50 employees or part thereof.

The Contractor must ensure that sufficient elected and/or appointed Health and Safety representative/s 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.

The Contractor must ensure that elected and/or appointed Health and Safety Representatives execute their functions as under the provisions of applicable legislation.

An appropriate sticker is to be issued by the Contractor and affixed to a **DARK GREEN** helmet to identify each Health and Safety Representative.



5.3.5 Health & Safety Discipline Procedure

Where a breach of a Site Health & Safety rule or The Contractors Safety Procedure is identified the Contractor must 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
- Third breach - appropriate disciplinary action taken

Where a breach of a Health & Safety rule has occurred and is considered blatant, the person's Site Access may be withdrawn at the discretion of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Construction Manager or Health and Safety Agent after consultation with the relevant persons.

Should an NCR be raised, concerning Health and Safety Matters, by the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Health and Safety Agent, against the any Contractor (Principle or Sub-Contractor) for serious deviations/ unsafe acts/ unsafe condition being condoned, etc., the recommendations within the NCR will be final and can include, but not be limited to, a Fine of R10,000.00 per NCR and/or the removal of persons from site, or the termination of a contractor's services on the project.

The KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Health & Safety Agent will also be compelled to report such offences to the relevant statutory professional body to which the offender is registered (as required).

5.4 Contractor Management

5.4.1 Subcontractor's Safety Management Plan

The Contractor must ensure that all its sub-contractors have written Safety Management Plans in place and implemented that are of a standard suitable for the type of activity being undertaken, which address the hazards involved with the particular work activity, and which support the Contractor's accepted safety management approach. The Contractor must ensure these Plans are in place before allowing sub-contractors to mobilise to site. Subcontractor Safety Management Plans must include management of transport and delivery Contractors entering the site delivering materials and/or equipment.

5.4.2 Working Together for a Safe Site

The Contractor and its subcontractors must actively participate in any programs and/or activities designed to improve the Health and Safety performance on the project.

5.5 Training and Competency

5.5.1 Contractor Personnel Competency and Responsibility for Health and Safety

Prior to the commencement of the work, including mobilisation and site set-up activities, the Contractor must provide current documentation to the satisfaction of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa verifying that the Contractor's and subcontractor's personnel are competent and have the appropriate qualifications, job skills and training as required by this Contract and applicable laws.

The Contractor must ensure that all his employees and his Sub-Contractors' employees working on the site are adequately trained in the type of work to be performed, are trained in relevant procedures and have



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the appropriate qualifications, certificates and tickets, and are under competent supervision. Records are to be maintained on site of appropriate training and qualifications of all employees by each Contractor.

The Principal Contractor and all contract employees are holders of current certificates or licenses, where the operation being performed requires. All to be in compliance with Legislation, National Qualification Framework Act, 2000: Act No 67 of 200 (e.g. SAQA, CETA, HWSETA or similar registered course as applicable) or applicable industry standard where legislation does not prescribe or have registered courses to meet the requirements.

Certificates of training and/or a letter from 16 (2) certifying a person's competency and test of competency is submitted at the induction centre for each employee as well as a man/job specification.

Note: No certificates that are aligned to unit standards will be accepted. The course providers must be accredited course providers, and the certificates issues must be accredited where ever unit standards exist.

Proof of the following minimum Safety Training is required before any work may commence:

- Safety Officer (CR8.5) – SAMTRAC (Or equivalent – approved by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa) and at least 5 years' construction safety experience and proof SACPCMP registration or proof of submission
- Risk Assessor (CR9.1) - to have completed a SAMTRAC & SAQA Accredited Risk Assessors (HIRA) course or equivalent.
- Management and Supervisory personnel and foreman (All 16.2 and 8.1 appointees) – Supervisor's Safety course – (IRCON 24-hour course or equivalent approved by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa) and a certificate of competency as required by regulations regarding competency
- Workforce – (Basic Health & Safety Training)
- Trained, elected and appointed Safety Representatives per area in the following ratio: **(OH&S Act - Section 17 &18 and General Administrative Regulations 6 and 7)**
- Up to 50 people on site = 1 Representative
- And 1 for every 50 or part thereof thereafter
- Trained and appointed First Aiders per area in the following ratio; **(OH&S Act – General Safety Regulation 3)** at least one First Aider to hold a Level 3 certificate and be on site fulltime.
- Up to 50 people on site = 1 First Aider
- And 1 for every 50 or part thereof, thereafter

When teams are working in separated areas KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative may instruct the Contractor to appoint First Aiders and Safety Representatives per work area regardless if less than fifty people are working in an area.

The Contractor is responsible for offloading all deliveries of materials, equipment, etc. delivered to the Site, including the competence of transport and delivery Contractors entering the site.

Generally, all equipment operators will be required to be re-assessed, using the equipment provided and, in the conditions existing on site, in relation to heavy vehicle/light vehicle operation and interactions.

The Contractor represents and warrants that its supervisors are competent, and have been trained and advised in writing that they are responsible, and have accepted and acknowledged such responsibilities



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in writing, for ensuring that the work is performed in accordance with all applicable laws, rules and regulations, good working practices, and any additional guidelines and/or operating standards provided to the Contractor by the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa .

The Contractor must, develop a Personal Safety Action Plan for each key staff member that lists actions to be taken and responsibilities. These plans are regularly audited by the Contractor's Project Manager. The Contractor's Project Manager will have his Personal Safety Action Plan audited by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative.

The Contractor must at the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa request, provide KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa with organization charts, specifying the areas of safety responsibility of supervisors. The Contractor's Supervisors must assess and assure themselves that employees under their control have adequate skills and training to carry out their tasks and will not be permitted to perform tasks for which they have not been adequately trained.

The Contractor's and/or subcontractor's employees must, where required by legislation & where accredited courses are available, be the holders of current relevant Government Department Certificates or Permits where the operation being performed requires such certification.

Contractor's and subcontractor's employees carrying out the following designated tasks require specific authorisation by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa , i.e.:

- Operation of mobile equipment including cranes and work platforms
- Slinging of loads from, and the direction of movement of loads by, cranes and other lifting devices
- Driving light vehicles, buses, trucks, etc.
- Supervising Excavations deeper than 1.5m

The Contractor must request authorisation of persons nominated to perform these tasks, with 2 weeks' notice, and must support that request with copies of competency certificates, including driving license, and relevant medical certification, copies of log books or work experience that can be verified, and a written statement attesting to the fact that the employee is competent to perform the nominated function. Note that medical examinations for drivers and crane operators are specific to the trade. Copies of all such evidence of competence are logged in a Register maintained by the Contractor. The Contractor must provide electronic copies of such Register/s to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa upon request.

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative may at any time conduct a task observation as to the ability of any operator of equipment or person carrying out a nominated specific task, to carry out that task in a safe and competent manner. If KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative is of the opinion that the person is not "currently competent", that person must cease work immediately, undergo the necessary retraining or be removed from that activity. Retraining is at the Contractor's expense.



5.5.2 Training

5.5.2.1 Induction in Health and Safety

Comply with: OH&S Act - Section 8

The Contractor must ensure that no employee of the Contractor or its subcontractors, including transport and delivery Contractors entering the site delivering materials and/or equipment, must proceed to enter the Site or any operations area until they have received all training required under applicable laws and regulations, including, but not limited to, work activity inductions and the KwaZulu Natal Province-Agriculture and Rural Development Republic of South Africa Site-specific induction. This Project induction has a "life" of 12 months, after which re-induction is required.

The Contractor must also prepare and present to all its employees its own Contractor Induction, explaining the Contractor's Safety Management Plan, the Contractor's Rules, the obligations imposed by the Occupational Health and Safety Act and Regulations, the Project Safety booklet, as well as a Site-specific induction, which must as a minimum consist of an introductory briefing explaining the nature of the work, the general hazards which may be encountered during the operation, and the particular hazards attached to their own function within the operation and how these hazards is identified and accounted for.

The Contractor must ensure that all its employees and the employees of its Sub-contractors working on-site are adequately trained in the type of work to be performed and are trained in relevant procedures and have the appropriate qualifications, certificates and tickets and are under competent supervision. Records are to be maintained of appropriate training and qualifications.

The Contractor must ensure that all its personnel and its subcontractor's personnel receive a copy of the Contractor's Health and Safety training manuals or handbooks relevant to their jobs which must detail Health and Safety code and conduct, personal safety protection, emergency Health and Safety response and personal health conduct. The Contractor must provide KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa with details of ongoing training programs and must provide KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa with all related revisions during the term of this Contract. The Contractor must provide programs for the above to overcome any language, literacy or comprehension impairments.

A full day is set-aside for Induction and production of appropriate photo identification of all employees.

Prior to induction all employees must undergo a pre-employment medical examination (If required) and found fit for duty. A copy of the certificate of fitness is presented for permanent record at the induction centre and kept at site offices for permanent record to be transferred to KwaZulu Natal Province-Agriculture and Rural Development Republic of South Africa on project completion. Employees found with health conditions and need to receive chronic medication, shall be monitored as to the effect that medication are taken.

Employees must not have access to the site until they have completed this induction. The Contractor must keep a record of all inducted personnel.

Before commencing work, the following induction-training courses are attended:

- Site Induction
- Contractors' job specific Induction

Proof of job specific induction signed by Inductor and trainee is submitted at the induction centre before a badge is issued.

In addition to the basic safe working practices induction, the Contractor must ensure that all his employees and those of his sub-Contractors are inducted in site-specific safety issues.



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The Contractor must ensure that badges and exit medical certificates are submitted to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa site representative when people are demobilised; failure must result in withholding of final payment until exit medical certificates are received and or a penalty of R200-00 is paid for every badge not submitted.

Contractors should ensure exit medical and badges are received before final payment of employees.

5.5.2.2 Emergency Procedures

The Contractor must ensure that all personnel on the Site, including visitors, are properly instructed in the Site emergency response procedures. Drawings and plans, indicating emergency equipment and escape routes shall be displayed on notice boards and other places as may be required.

5.5.2.3 Isolation Procedure Training

The Contractor must comply with and train their employees in the Site requirements in relation to Hazardous Energy Isolation. The level of training is dependent on the position and responsibilities of the employee.

No person who has not been properly trained and assessed as competent will be allowed to isolate any item of equipment or plant.

5.6 Hazard and Risk Management

Prior to the commencement of the work, including mobilisation and site set-up activities, the Contractor must demonstrate to the satisfaction of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa 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 low a level as is acceptable and to meet all the Health and Safety management requirements under this Contract.

5.6.1 Project Specific Hazards

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Project manager will identify specific job-related hazards applicable to the Work under the Contract, and inform the Contractor thereof.

5.6.2 Hazard and Facility Review Studies

The Contractor must ensure that Hazard Identification studies is incorporated into the Contractor's Design Management Plan and scheduled at appropriate stages of the design process.

The Contractor must make available suitably qualified and experienced personnel to participate in these studies. KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa and/or KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative will also participate. The Contractor is required to provide all input data for the conduct of the studies.

The Contractor is responsible for the implementation of the study findings and must carry out any modifications to design or plant required by the outcomes of the studies.

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa has made all reasonable efforts to ensure that the safe and clean design input information provided is complete and correct. However, the Contractor must make its own assessment of the hazards and risks associated with the Work under the Contract, consistent with the requirements of the Contract and the obligations imposed by all applicable legislation.



5.6.3 Hazard Identification and Risk Assessment Workshops

The Contractor must conduct, with appropriate personnel, Construction Safety Studies to identify the detailed methodology and related hazardous activities, in particular those with potentially catastrophic consequences such as multiple and single fatalities, of the Contractor's 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 must also conduct, with appropriate personnel, Preliminary Hazard Assessment (PHA) 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.

Where the PHA workshop identifies that administrative controls (procedural controls) have to be used to reduce the risk to an acceptable level, then the Contractor's work crew or individual if it is a one-person task, must carry out a Job Hazard Analysis (RA) of the task or activity, which will result in a Work Instruction for routine tasks and activities or the documented RA for non-routine, one-off or changing tasks and activities. RA's will be reviewed by the Contractor prior to starting work each day or shift, and Work Instructions prior to starting work each week.

A five stage hazard identification (define job, identify hazards, assess risk, control risk, monitor) and risk assessment process will be implemented by the Contractor for commissioning and start-up activities, conducted on all system commissioning and live testing operations, activities and tasks prior to introducing hazardous energy and/or materials.

The Contractor's Site Management Representatives, supervisory personnel, technical experts as required, and work force personnel directly involved will participate in these hazard and risk assessment processes, and the findings documented. The KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa, and/or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative must attend the workshops / studies. At these workshops/studies the Contractor's methodology may be reviewed task by task, potential hazards identified, and actions agreed on to mitigate risk.

5.6.4 Risk Assessment of Plant and Equipment

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

Such risk assessments for equipment mobilising to Site is reviewed and accepted by the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa, or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative prior to the equipment arriving at Site, and must consider, where applicable, potential for entanglement in moving parts, crushing or striking by moving or falling objects, cutting or stabbing by sharp objects, high pressure fluids, electrical shock or burns, burns from hot or cold surfaces, slips, trips and falls, ergonomic design of access and egress (3 points of contact to be maintained), seating, vibration, noise, exhaust fumes, etc. The identification of hazards should consider normal operations, abnormal or unusual operations, maintenance and servicing operations. Particular attention is given to fall protection attachment points when there is a requirement to work over 2 meters above the ground (servicing earthmoving equipment for example).

The contractor must implement and comply with OH&S Act - Electrical Machinery Regulation 9.

The Contractor must ensure that all plant, equipment, power and hand tools brought onto the site by the Contractor or his sub-Contractors are:



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- Appropriate for the type of work to be performed
- Approved, inspected, tested, numbered and tagged (if appropriate) in accordance with Occupational Health & Safety Statutory regulations and KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa rules, before importation onto the site
- Properly maintained in accordance with manufacturer's recommendations
- Placed on register and checked at least monthly and or more frequent as required by required by Legislation and or KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa rules

Construction Plant and Equipment

The contractor must implement and comply with OH&S Act - Electrical Machinery Reg. 9, Driven Machinery Reg. 1 – 20, Electrical Machinery Regulations and Electrical Installation Regulations

The Contractor must supply, at his cost, all items of plant and equipment necessary to perform the work and must maintain all items in good order and condition.

Should any plant or equipment become inoperable for a period considered by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative to be harmful to the progress of the work, the Contractor, on KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative's instructions, must remove the unserviceable plant or equipment and replace it with similar serviceable plant or equipment at no cost to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa .

No item of plant or equipment delivered to site for this Contract is removed from the site prior to the completion of the Contract without the written approval of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative reserves the right to inspect items of plant or equipment brought to site by the Contractor for use on this Contract. Should KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative from the opinion that any item is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative must advise the Contractor in writing and the Contractor must forthwith remove the item from the site and replace it with a safe and adequate substitute. In such cases, the Contractor must not be entitled to extra payments or extensions of time in respect of delay caused by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative's instructions.

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 in these registers

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

5.6.5 Method Statement

The Contractor must submit Safety Method Statements to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development



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Republic of South Africa nominated Representative for approval prior to the task commencing (the Contractor must factor in at least seven (7) working days for a Safety Method Statement review, this does not necessarily mean that approval will be within seven days as amendments may be required and the Method Statement resubmitted for review). Safety Method Statements are to be submitted before or with the Risk Assessment and prior to the work commencing or on request of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative.

Acceptance of a Safety Method Statement by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa must not relieve the Contractor of responsibility for ensuring full compliance with Contract specifications and conditions. Specific Work Method Statements may also be required by legislation. Note: an approved Safety Method Statement is useless without the corresponding Approved Risk Assessment.

The Contractor must record the Safety Method Statement on the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative format. The Task Items listed in the Safety Method Statement must tie up exactly with the task items being assessed in the Risk Assessment document.

The Safety Method Statement must detail in a step by step and methodical manner how the task is to be done from beginning to the end and must indicate what tools/equipment will be used at each stage and/or how the work area is to be accessed.

5.6.6 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. These Plans is submitted to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa for review and be entered in the Site Risk Register. Journey hazards to and from the Site should be included.

The plans are periodically reviewed (every four months) for applicability and suitability.

5.6.7 Risk Assessment

As described above, prior to the commencement of each work activity, or as requested by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative, a Risk Assessment (RA) is completed, documented and submitted to the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative for approval prior to the task commencing (the Contractor must factor in at least seven (7) working days for an RA review, this does not necessarily mean that approval will be within seven days as amendments may be required and the RA resubmitted for review).

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 Contractor must propose the RA process and must record the RA on the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative format (Annexure 1, as attached), considering the requirements below. 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 RA / risk assessment process. Completed RA's is available for review by the work crew, KwaZulu Natal Province-



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Agriculture and Rural Development Republic of South Africa and the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative upon request.

The Risk Assessment must:

- Describe the operation to be performed in the sequence of the basic job steps.
- Identify the hazards or potential hazards at each step.
- Identify the possible consequences for each hazard at each step.
- Assess the Initial Risk Score that each hazard presents (Probability x Severity x Frequency), the total score will be used to identify the Risk Ranking/Priority Factor. Once control measures have been considered and implemented, a Revised Risk Score must be allocated to each hazard.
- Identify the Site Rules that apply.
- Describe how the hazard is controlled such that the residual risk is as low as reasonably practicable (ALARP) and is acceptable to the work crew (remembering that PPE is the last resort and elimination and engineering controls must always be considered first).
- Identify the related Work Instruction if appropriate.
- Be reviewed prior to each shift.
- Be acknowledged by way of signature of all personnel involved in the work activity.

Should the Contractor's appointed Risk Assessor continually submit sub-standard Risk Assessments, this would indicate that the Risk Assessor lacks the knowledge and experience required, the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative reserves the right to ask that the appointed Risk Assessor is replaced with a more competent and experienced Risk Assessor.

The sub-contractors must also comply with competency, content and format requirements of the Risk Assessments as listed above. It is the Contractors responsibility to review and approve their sub-contractors Risk Assessments to the same standard as KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative would review it to. KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative reserves the right to inspect the sub-contractors risk assessments and if found to be sub-standard then those tasks affected by the sub-standard risk assessments will be stopped until the risk assessments are amended to a satisfactory level.

5.6.8 Unsafe Operations

If the Contractor 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.

5.6.9 Work in Operating Areas

When the Contractor is working in close proximity to 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 KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa '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 KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa 's nominated Representative. At all times, defined access ways are kept clear of objects or obstructions which could cause injury to personnel or damage to equipment or plant.

The Contractor warrants that the Contract rates and prices include for all safety watchers (spotters or look-outs), signs, lights, barriers, traffic barricades, protective shielding and the like required for the protection of personnel, plant and construction operations.

5.6.10 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 KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or in the absence of any relevant law, regulation or procedures, in accordance with sound safe practice.

5.6.11 Hierarchy of Control

The Contractor must ensure that all risk and hazard controls are applied in accordance with the 'Hierarchy of Control' methodology.

Control measures to eliminate or minimise the risk is considered and implemented in the following order of priority:

- 1 **Elimination** of the hazard is the main objective.
If this is not possible, prevent or minimise exposure to the risk by one or a combination of:
- 2 **Substitution** - substituting a less hazardous material, process or equipment
- 3 **Isolation** - isolating the hazard from the person or the person from the hazard
- 4 **Engineering** - redesigning equipment or work processes
- 5 **Administration** - introduce administrative controls
As a last resort, when exposure to the risk is not (or cannot be) minimised by other means:
- 6 **PPE** - identify and use appropriate personal protective equipment

5.6.11.1 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 right people in the change process
- All statutory requirements are met



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

5.6.12 Construction Regulation

In addition to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Risk assessment requirements above, the contract must implement and ensure compliance with: Construction Regulation 9.

5.7 Occupational Health and Hygiene

5.7.1 Fitness for Duty

The Contractor must ensure that personnel under its control and authority comply with the requirements of the Fitness for Duty Policy and are bound by its disciplinary provisions, regarding the possible effects of:

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

5.7.2 Alcohol and Other Drugs

The Contractor must ensure that personnel under its control and authority do not at any time, during the performance of the work, take or work under the influence of any alcoholic and/or other drug other than for bona fide medical reasons or other proper reasons that have been approved in advance and in writing by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Project Manager. The measures to be taken by the Contractor must include a drug test prior to such personnel starting work on the site. The Contractor must ensure that personnel under its control and authority comply with the Project site program of random testing for alcohol and other drugs.

5.7.3 Health Assessments and Health Monitoring

The Contractor must ensure that all the Contractor's personnel are healthy and medically fit for their respective assignments and must certify the same to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa if so requested. The Contractor is responsible for pre-placement and exit medicals and ongoing health assessments.

The Contractor must ensure that operators of mobile equipment undergo "fit for work" medical examination every 1 year and crane operators engaged in lifting man boxes every 5 years. This medical is to certify that the medical practitioner has examined the operator and formed the opinion that the operator is free from deafness, defective vision, epilepsy, heart disease, and any other infirmity likely to cause the operator to lose control of the machine being operated.

The Contractor is responsible for the medical welfare of its own employees, servants or agents and their families.

All medicals to include the Annexure 3 form as per the Construction Regulations 2014, signed and stamped by the occupational medical practitioner.



5.7.4 Hygiene

The Contractor must ensure that its personnel and subcontractor's personnel must maintain high standards of hygiene in connection with the performance of the work.

The Contractor must maintain all work areas in a clean and tidy state and must promptly and appropriately dispose of waste material.

Resting and Eating areas are kept in a clean, tidy manner and are positioned away from contaminants and hazards, to the satisfaction of the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative and any statutory requirements.

Due to the nature of this site no eating and drinking may take place outside the designated eating or office area facilities are to be made easily available for persons to wash hands when leaving the construction area and entering the construction site offices.

5.7.5 Cleaners, Solvents and Hazardous Materials

No chemical, which is potentially hazardous, is brought onto the Site without the prior acceptance of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative.

The Contractor must submit to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa a Materials Safety Data Sheet (MSDS) with its request for acceptance of each hazardous substance the Contractor proposes to use at the Site.

The Contractor must ensure that all necessary transport, storage and usage precautions are taken and that safety equipment, including antidotes, if necessary, are available on the Site.

5.7.6 First Aid Services

The contractor must implement and comply with OH&S Act - General Safety Regulation 3

The Contractor must provide a person qualified to give first aid attention on the Site at all times that the Contractor is carrying out work on the Site. The minimum qualification is that provided by the St John's Ambulance Brigade or as prescribed in the **OH&S Act – General Safety Regulation 3**.

The Contractor must provide and maintain first aid equipment on the Site. The equipment is to a standard as laid down by the Statutory Regulations.

5.7.7 First Aid Boxes

To be provided with contents as per minimum legal requirements. Boxes is provided in all working areas and kept locked. Record to kept, in an appropriate register of all treatment done. (**SABS 1186** approved signs to indicate location of first aid boxes)

5.7.8 Emergency Numbers

Lists with emergency numbers to be posted at phones and in every office. Provide workers with stickers to place inside their hardhats with emergency numbers printed on stickers.



5.7.9 Smoking

The Contractor must not permit smoking at the Site except within designated smoking areas selected in accordance with applicable laws, rules, regulations, and policies.

5.7.10 Sun Protection

The Contractor must ensure that all personnel are protected in sunlight by the use of long sleeve shirts, long trousers; brims to safety helmets, UV factored sunscreen and shade structures.

The Contractor must conduct training and awareness sessions with its workforce, advising on the risks of working in the heat and dehydration and the precautions to be taken including an acceptable fluid intake depending on conditions. The Contractor must ensure that adequate water is available to its workforce at all times.

5.7.11 Working Hours

The Contractor is responsible for the administration of the working hours of its employees and subcontractors. Maximum working hours per day and minimum rest times between shifts is specified in the Contractor's Health and Safety Management Plan and must comply with the requirements for the project site unless specifically approved by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa .

5.8 Safe Systems of Work

5.8.1 Typical Activities Requiring Safe Work Procedures (SWP's)

Guidelines of typical construction activities for which SWP's is provided before starting work on site by the Contractor (To be attached to Risk Assessments)

- Site establishment, Fire-fighting and evacuation, Rubble and refuse removing, Stacking and storing, Housekeeping, Loading & off-loading of vehicles etc.

5.8.2 PPE

Safe Systems of work to address specific PPE requirements over and above the minimum requirements as per the Site Rules taking into account items of PPE that might not be compatible with the user or with other PPE (e.g. if the user has spectacles and is required to wear a full face respirator, the spectacle arms will break the seal and will not provide the required protection). PPE is also to be seen as the last resort and engineering controls should be put in place whenever possible.

5.8.3 General

Work areas – benches, containing of sparks, Barricading and handrails, Safe Access and egress, Evacuation and emergency procedures, Backfilling and compacting, Shuttering & Form work, Lifting and rigging, Steel fixing, pouring of concrete and floating, Elevated work, use of ladders, Roadwork and Fuelling of machines.



5.8.4 Activities per Discipline

Civil, Pipefitting, Excavation, Bricklaying, Work in confined spaces, Stock keeping and control, Demarcation

People activities like:

Grinding, Welding, Using Jack Hammer, operating of machines, Cutting, Compacting, Crane operating etc.

5.8.5 Personal Protection

The contractor must implement and comply with OH&S Act – General Safety Regulation 2

5.8.5.1 Standard PPE

All Contractors' personnel at the site, including visitors, must use the following minimum personal safety equipment at all times and must comply with relevant SABS/EN/EC codes:

- Safety head protection with chin strap (**SANS 11451** approved)
- Safety footwear with steel toe protection.
- Safety glasses with side shields (UVEX type or equivalent)
- Hand Protection as required
- Long trousers
- Long-sleeved shirts with cuffs and collars and reflective taping as required
- High visibility Reflective Vests.
- Hearing and respiratory protection as required
- Suitable protective clothing (Overalls for all employees conducting physical working)

Personnel exposed to noise levels exceeding 85dB (A) for any period of time or where signs indicate hearing protection is required to wear (**SANS 11451** approved) hearing protection. Note: NIHL (noise induced hearing loss) assessment should be conducted, where appropriate, by a competent person (Registered Occupational Hygienist) and recommendations and control measures followed.

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 KwaZulu Natal Province-Agriculture and Rural Development Republic of South Africa 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.

PPE must be issued to all workers free of charge (unless otherwise damaged or lost by the employee) and a record of issuing must be maintained (including but not limited to; employees name, date of issue, item issued, employee signature, issue officer signature, etc.).

Training must be provided to all employees to ensure they know how to use and maintain their PPE. Training should include but not limited to: Cleaning of PPE, Hygiene, Correctly Putting PPE on, Inspection of PPE, Health Risks associated with the task, identifying when PPE is spent (i.e. reach saturation point/no longer functioning as it should) or broken, etc.



5.8.5.2 Specific PPE

The Contractor must provide and ensure usage and compliance with the following minimum PPE requirements for site work:

SABS/EN/EC approved hard hats and hard hats with fixed side knobs for welding and grinding operations.

Approved and appropriate overalls.

Wearing of impact Safety Spectacles with side shields are compulsory on site and in workshops at all times. Prescription glasses must comply with the same standard or cover impact safety spectacles is worn over them.

Front flip goggles to be used for gas cutting.

Double Eye-Protection

- Welding – Impact Spectacles & Welding Hood
- Grinding – Impact Spectacles & Full Face Visor
- Cutting – Impact Spectacles & Full Face Visor
- Reaming – Impact Spectacles & Full Face Visor

Specific PPE

- Boots / Shoes – “Fram” safety boots or equivalent.
- Gumboots – Steel cap toe.
- Ear-plugs (**SANS 11451** Approved)– Noise zones exceeding 85Db (Including grinding/compacting etc)
- Nuisance Dust – Dust Masks – 3M Standard
- Grit Blasting – Airline Hood
- Spray Painting – Airline Hood (Confined Spaces) /Canister type mask

Applicable Gloves to be worn for all Hand Operations

- Using a Stanley knife - Glass cutting gloves
- Gloves for artisans and helpers.
- Manual Handling – standard gloves.
- Symbolic signs (To comply with **SANS 11186**) indicating the use of PPE is placed at entrance to the construction site
- COVID 19 3 ply Cloth mask

Respiratory Protective Equipment (RPE) & Breathing Apparatus (BA):

- Only SABS/EN/EC rated equipment to be supplied.
- Must be provided as per Risk Assessment requirements based on Time Weighted Averages (TWA) and Workplace Exposure Limits (WEL).



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- Must be provided as advised by an Occupational Hygienist, after they have considered the exposure risks on site.
- Where possible, after considering exposure risk and cost factors, the most effective RPE for the situation should be used.
- Specific training must be provided to all employees who use the RPE/BA for the use and maintenance of RPE/BA. Training must include but not be limited to: Cleaning of RPE/BA, Disposal of RPE/BA items or filters/cartridges, Hygiene, Correctly Putting PPE on, Inspection of PPE, Health Risks associated with the task, identifying when PPE is spent (i.e. reach saturation point/no longer functioning as it should) or broken, etc.

Issue, Replacement and Control of PPE

A dedicated person must:

- Control the issue and replacement of equipment
- Keep an up-to-date register, with signatures of the recipients, as proof of having been issued with such equipment will be free charge

***PPE and Related Safety Requirements at to be issued for free by Contractor.**

5.8.6 Working on Live Electrical Equipment / Sub-Station

The Contractor may not allow any work on live electrical equipment!

5.8.7 Requirements when Off-loading Vehicles

The Contractor must ensure that drivers and/or their assistants, who are required to assist with the off-loading of material and/or equipment, are provided with the following minimum Personal Protective Equipment: -

- Hard hat
- Safety boots / shoes
- Gloves
- Glasses
- High Visibility Reflective Vest

5.8.8 Elevated Work

The contractor must implement and comply with Construction Regulation 8

The Contractor must:

- Submit a fall protection and rescue plan to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Project Manager for approval, before any elevated work commence
- Parachute type harness with shock absorber and double lanyard to be provided for all elevated work
- Ensure that:
 - All tools in elevated positions is attached to lanyards and be attached to either the person or structure



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- Equipment in elevated positions are tied back to the structure
- No loose items in elevated positions. E.g. Bolts and nuts is in pouches, not paper boxes
- Overhead work allowed only if Area below is barricaded in accordance with KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa barricading requirements
- Competent riggers place lifelines on register and check it daily before use and records findings in the said register

Note: Employees must be attached by at least one lanyard of the safety harness/climbing harness at all times when conducting elevated work.

5.8.8.1 Structures

The Contractor must implement and comply with Construction Regulation 5.

5.8.8.2 Barricading requirements

The contractor must implement and comply with OH&S Act – General Safety Regulation 13 (I)

The Contractor must ensure that:

- All openings and edges are barricaded with solid barricading to withstand an impact of at least 100kg
- Only solid barricading covered with Orange "Snow Netting" and or KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa approved equivalent barricading is allowed to be used as barricade
- Solid barriers to prevent persons falling into them must protect openings in floors, stairwells, staircases, open-sided buildings and any structure in the course of erection, where dangerous openings exist
- Contractors must pre-plan the delivery of floor grating, stair treads, landings and handrails to ensure safe access and protection for persons working on structures
- Barricading is tagged, placed on register, maintained and inspected daily – The owner of the barricade's name and mobile number must appear on the tag

All handrails and fencing must comply with KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Standards. They are provided around all holes or openings to prevent any person being injured as a result of a fall. A Solid framework with Plastic Barricading Netting attached to it is required.

Where it is impracticable to provide fixed guard railing, effective removable barriers are provided at all unguarded openings in guard railing or floors, and is maintained in position at all times until the hazard no longer applies.

Note: Danger tape will not be accepted as barricading!

5.8.9 Working in Existing Operations

Work carried out such that no interference is caused to other construction work being carried out on the Site and no claims for delays are brought about by the nature of the work is approved by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Project Manager.

Any work which requires section of the Plant to be taken out of operation with resultant interruption to production and/or other construction activities is carried out in the absolute minimum of time and be on the basis of the Contractor working around the clock (**within legal parameters**) for the duration of such work. The times when work of this nature can be carried out are as arranged with KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.



5.8.10 Permit to Work

The Contractor must obtain a permit from the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa and necessary test done like testing for gases and vapour presents, etc.

The permit must list specific condition and hazards involving the specific task.

5.8.11 Alterations to Existing Facilities

All necessary alterations to existing details and connections between new and existing details is carried out by the Contractor, including the making good of existing details on the completion of the work.

Where openings are left, due to the removal of access platforms, hand rails, or steel work or where new details have not been installed, the Contractor must fabricate and install temporary solid handrails until the permanent structure is erected.

All temporary connections and the like are carried out in conformance with all regulations to ensure safe operation and passageway for all personnel.

Protection of Equipment

The Contractor is responsible for covering up any equipment placed in danger of damage from his operation, for example cables or other combustible equipment, with a flame-proof material before Oxy-cutting, grinding and welding.

The Contractor must ensure that all equipment is properly protected against damage or deterioration during all phases of construction, in accordance with equipment suppliers' recommendations.

5.8.12 Work in Operating Areas

When the Contractor is working in close proximity to operating cranes, roads, railways or other equipment and a safety hazard exists, the Contractor must:

- a) Provide safety watchers as necessary or as directed by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative
- b) Provide, erect and maintain all the required barriers, flags, and wheel stops, buffer stops flashing lights or other safety equipment to enable his operations to proceed in a manner which satisfies KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Safety Regulations
- c) Remove all such protective devices once the hazard has been removed or on completion of the work

The Contractor must at all times keep defined access ways clear of objects or obstructions which may endanger the health, safety or welfare of personnel or cause damage to equipment or plant.

The Contractor must provide any temporary protective shielding required for the protection of construction activities from nearby operations, at his expense.

The relevant permits are obtained prior to undertaking any work. In addition to this, the Contractor must advise KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative immediately prior to commencing work in the area.

Where the work is carried out in hazardous zones or where there is a danger of producing combustion in adjacent flammable materials, the Contractor must provide a dedicated fire watch for job site control, including management and implementation of preventative action.

Remember for all work done in live plant Contractor's supervisors must obtain a permit to work from the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa operational control



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with a KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative **present.**

5.8.13 KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Operations

Access to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa operations and operating plant and facilities is restricted.

All access to the construction site is through defined access roads and all personnel, Contractors, deliveries, visitors and the like must use only these defined access routes.

Unauthorised personnel found in restricted areas of the Plant will be removed from the site.

The Contractor must provide watchers for activities adjacent to operating plant.

Personnel are required to move out of the Construction areas during periods when the Overhead Cranes is moving over the area.

Operations must cause interruption to or provide access for the construction activities, which is further, explained at the Site Meeting.

All tools and equipment are kept in first-class condition. Examine all tools for faults before use and report all unsafe tools, equipment or conditions to the relevant Supervisor immediately.

5.8.14 Plant Isolation Procedures

A strict isolation & permit system involving the use of Danger and Out-of-Service Tags and, in some circumstances, locks, applies on KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa premises.

5.8.15 Working of Moving Equipment

Never work on a crane, conveyor table or other machinery without securing permission.

Work must not be started until the Contractors' personnel have placed Danger Tags and control access.

5.8.16 Compressed Air

Compressed air must **NOT** be used for any purpose other than that for which it is provided.

Do not use compressed air to remove dust from clothing.

NEVER direct a stream of compressed air at your body or that of any other person - it may enter the body and cause serious injury or death.

Locking wires or other suitable approved devices are to be used to prevent accidental uncoupling of compressed air hoses

Do not disconnect air hoses until sure that the supply valve is closed and the pressure in the hose has been released.

Hoses to be orderly routed and elevated, if required, to prevent tripping hazards.

5.8.17 Oxygen, Acetylene and LPG Cylinders

The contractor must implement and comply with OH&S Act - General Safety Regulation 9 and SANS 11548



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Contractors must establish satisfactory storage areas (Fenced, shaded, approved surface and all necessary signs posted) for oxygen, acetylene and LPG. Gas cylinders. Oxygen, acetylene and LPG cylinders is stored (separate) and in an upright position.

When moving cylinders from place to place, keep them from being knocked over or falling. Before moving a cylinder without a suitable truck or trolley, close the cylinder valve and remove the regulator. Only use special approved cylinder crates/cradles. Do not transport cylinders with magnet cranes. Never use cylinders as rollers, even if they are marked 'empty'.

Make sure that cylinders do not come in contact with electrical circuits, e.g. welding leads. Never strike an arc on a cylinder.

Do not store cylinders in hot places. If possible, do not use cylinders in hot places. Don't let cylinders get hot; avoid standing them in hot sunlight if possible. Before you begin a job in a hot area check to see that your cylinders are protected from overheating. Keep your cylinders far enough away from cutting work to stop sparks or hot slag reaching them. If it is necessary to work where cylinders become hot or warm, move them to a cool area as soon as you finish the job.

As with compressed air use oxygen **only** for the purpose for which it is provided. Do not use oxygen in pneumatic tools or tyres as an explosion may occur.

Oxygen cylinders should be stored at least 5m away from other flammable gas cylinders.

Flashback arrestors to be fitted on torch and cylinders.

Empty cylinders to be marked as such and removed daily to approved storage areas. Cylinders must only be allowed on site in an approved trolley, properly secured and with a 1,5KG Dry powder fire extinguisher attached to the trolley.

Storage of Gas Cylinders

- Storage areas should whenever possible be well clear of buildings
- A protective covering is provided
- Adequate ventilation is provided
- Storage areas is kept free from all combustible materials, no other materials are stored in cylinder enclosure
- Full cylinders are kept apart from empty cylinders so that it must not be necessary to open valves to check whether cylinders are empty or full. Mark empty cylinders clearly and store in space provided
- Cylinders must always stand upright; special stands are used for cylinders and the cylinders is chained separately in an upright position
- Cylinders is stored in rows with aisles in-between for easy removal in event of fire
- For security and ventilation purposes a wire mesh fence should surround the storage area. Keep the enclosure locked
- All danger signs are prominently displayed at storage area; e.g.:
 - No Smoking
 - No naked flames
- Adequate firefighting equipment is available
- Oxygen and acetylene should be stored separately
 - The storage should be clearly marked



- Oxygen - Full Oxygen - Empty
- Acetylene - Full Acetylene - Empty
- Flammable and oxidising gasses must not be stored together, greases and oils must never be allowed to come in contact with Oxygen
- If electrical lighting is required, it should be of an approved type and comply with SANS 10108

5.8.18 Recognized Walkways

When walking through the Site or to personal work area use recognised thoroughfare. Don't take short cuts.

5.8.19 Explosive powered tools

The Contractor must implement and comply with Construction Regulation 19.

Explosive powered tools may only be used when prior written permission is granted by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Project Manager.

5.8.20 Welding, Cutting, Grinding and Heating

The Contractor must implement and comply with OH&S Act - General Health and Safety Regulation 9.

Contractors must instruct employees in the safe use of welding equipment. Cutting and welding work is carried out in accordance with **General Safety Regulation 9**.

Non-combustible or flameproof shields to protect employees from direct rays and air-borne particles must shield arc welding, cutting and grinding operations.

Electrode holders or welding guns is maintained in good order, and when they are to be left unattended, the electrodes are removed and the holders is placed or protected so that they cannot make electrical contact with employees or conducting objects.

All arc-welding cables are properly maintained and completely insulated. There is no repairs or splices within 3 meters of the electrode holders, except where splices are insulated equal to the cable. Defective cable is repaired or replaced. The earth cable is connected to the work place.

Fuel gas hose and oxygen hose is of an approved type, be easily distinguishable and must not be interchangeable. Hoses are inspected at the beginning of each day and is repaired or replaced if defective.

Hot Work

- Hot work permit to be obtained before job starts
- Falling sparks and/or Hot cuttings to be contained
- Fire Blankets and Fire Extinguishers is at hand
- Ensure not to carry out any Hot work, Cutting and/or Grinding in the vicinity of Flammable Liquids
- Protect Rubber lined Vessels / Tanks etc.
- Combustible Floors is wetted down, covered with Damp sand or Fire proof sheets
- All wall and floor openings covered
- Containers / Pipes purged of Flammable vapours
- Fire watch is provided
- Area to be inspected after Hot work has been completed
- Fire watch to stay in place for at least 30 minutes after operation
- Warn all Employees working under hot work process

Ensure adequate fire extinguishers, where appropriate, Mobile Water supply with Water Spray / Pressure available, at all times during Hot Work Operation.



Harmful gases are given off when doing certain types of welding work and the Contractor must provide a breathing apparatus when welding, cutting or heating:

- Zinc, lead, cadmium, mercury, or beryllium bearing based or coated materials in enclosed spaces
- Stainless steel with inert-gas equipment
- In confined spaces
- Galvanised steel
- Where an unusual condition can cause an unsafe accumulation of contaminants

Proper protective equipment to prevent exposure of personnel is provided.

No welding or cutting is undertaken where hot metal or sparks can fall onto walkways, work areas, cable ladders, electrical equipment, etc. Before welding or cutting is started, fire retardant blankets are placed to arrest such hot metal or sparks. Particular attention is taken when working above cables that are not adequately covered.

Use an approved type flint gun for lighting of torches. Do not use matches, rope wicks or other smouldering materials.

Hoses is deflated before cutting torches are cleaned and nozzles not robbed against gloves

During welding operations, the earth lead is to be attached to the work area and never such that the earth is established through equipment bearings or through clearance gaps of any sort.

Welders and other people executing hot work must not wear any jewellery and or carry cigarette lighters on their person.

All welding machines are earthed, receive power through an approved earth leakage and fitted with an approved voltage reducer. A certificate to be kept on register.

5.8.21 Electrical Equipment

The Contractor must implement and comply with Construction Regulation 24 and OH&S Act - Electrical Installation Regulations

Electrical installations and machinery on construction

The Contractor must ensure that:

- All electrical installations carried out on the site are in accordance with the Electrical Installation Regulations. For permanent or temporary installation, as appropriate. In addition, electrical installations must comply with KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Electrical Standard Specification
- Connections are not made to any power supply without the prior written approval of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative and where an isolation is required that an isolation permit has been obtained and the isolation procedure associated to the permit has been followed correctly
- All electrical installations are inspected by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Electrical Representative (or his nominee) to ensure that the installation complies with the statutory regulations applicable to the site and KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Safety Regulations
- All electrical machines and appliances provided by the Contractor for his own use on the site are in a serviceable condition
- Power tools used on the site are protected by residual current devices approved by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa and are double insulated
- All extension cords, portable tools and electrical plant supplied at a voltage above 32 volts are inspected tested and tagged by a licensed electrician at regular monthly intervals. Details of inspections and tests is kept in logbooks available for inspection by KwaZulu Natal Province-



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Agriculture and Rural Development Republic of South Africa Representative or any other authorised officer of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa

- Where natural lighting is inadequate, artificial lighting is to be provided in all work areas, access ways and for rescue equipment. Compliance with OH&S Act - Environmental Regulation 3 and Annexure E to the regulations
- Portable lights have adequate stability and are fitted with a mechanical guard to protect the lamp
- Temporary festoon lighting is of the 'double insulated' type and is supported at least 2.5m above the floor, if possible
- Hand lamps is of the 'all insulated' type
- All temporary light fittings are supplied from more than one final sub-circuit, with the supply from a residual current device, extra low voltage source or an isolating transformer

Any installations deemed unsatisfactory by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative should be removed by the Contractor at his expense.

The Contractor must obtain approval from KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative before any of his employees or sub-Contractors commence work within three (3) meters of high tension wires, or where there is a possibility of equipment coming close to and/or touching a power source, and must provide suitable protective insulating barriers. For the erection of scaffolding, the distance is five (5) meters.

Only authorised persons may enter electrical contractor houses, motor rooms, switch rooms, control rooms or cable ducts. Should the Contractor require entering such places to carry out work, he must first obtain permission from KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative and obtain a valid permit to work.

The Contractors' employees required to enter such electrical spaces "authorised persons", with the names entered in KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Authorised Persons Register, after receiving approval from KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Electrical Supervisor, or they are accompanied by an authorised person who must supervise the placement of Danger Tags and Out-of-Service Tags, as well as electrical isolation permit.

Before commencing work on the site, the Contractor must provide the following information to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative:

- Number of electrical machines and appliances to be placed in service on the site
- Nameplate data of each electrical machine and appliance
- Approximate total time the machines and appliances are in service to complete the Works
- The Contractor is responsible for the effective protection of his own electrical equipment from the weather and from possible mechanical damage

The Contractor is required to inspect electrical equipment as follows:

- Supply cabling distribution boards, fixed lighting and portable appliances on a monthly basis
- Extension leads, welding machines, compressors, pumps and hand portable tools on a weekly basis

Such inspection(s) are to be performed by an appropriately qualified electrician and a report submitted to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative, in accordance with the following:

Frequency of Testing:



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The Contractor must test and tag all the Contractors' and subcontractors' electrical equipment and leads on a monthly basis, as follows:

Colour Code:

Contractors must ensure the tagging and colour coding of all tools and equipment.

Colour code a different colour for each month as follows:

January - Red	July - Blue
February - Blue	August - Green
March - Orange	September - Red
April - Green	October - Yellow
May - White	November - Orange
June - Yellow	December - White

Unless a different monitoring system is in place

Details of the Tag:

The tag is a plastic self-adhesive tag unable to be re-used, as approved by the Construction Manager, and is capable of being marked with the following information:

- Test date
- Inspection number
- Testing agent
- Owner
- Plant number
- Type of equipment
- Record Book

An up-to-date record book is maintained at all times and be available for inspection by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

The record book must contain full details, as identified in the tag, and must list, in addition, the following:

- License number and signature of the electrician carrying out the test
- Comments on the results of the test and details of any repair work

Note: All electrical appliances must be fed through an approved and tested earth leakage device.

5.8.22 Working at Heights on platforms.

The Contractor must implement and comply with OH&S Act - General Safety Regulation 6 & Construction Regulation 10.

Where personnel are required to work in any area not guarded for fall protection, which has a fall risk, either above or below ground, permanent fall protection equipment is utilised by the personnel. Fall protection includes:



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- Safety harnesses and double lanyards (with the correct hook attached to the lanyard, e.g. Pylon type hook for scaffolding, or lifeline hook for lifelines, etc.)
- Approved lifelines, be it Static Life Lines, Retractable Lifelines, etc (installed and certified by a competent and suitably qualified person as per applicable SAQA unit standards). Lifelines must be sufficient for the work carried out and must consider the hazards of the task and numbers of employees to be attached at any given time.
- Other approved means.
- All harnesses must comply with **SABS/EN/EC** Standards and must be in a good state as inspected using a comprehensive inspection checklist, must be "in-date" as per manufacturing guideline.

This requirement also applies to Riggers erecting steelwork and Scaffolders erecting scaffolding. Riggers must at all times be permanently connected to adjacent steelwork through fall protection equipment. (Double lanyards to be used)

All persons working in a fall risk position, be it from scaffolding, formwork/false work, support work, roof work, deep excavations, etc. must be trained for working at heights with a minimum of an Accredited Fall Arrest Course (SAQA Unit Standard 229998). The supervisor of the work relating to the fall risk area must be trained at a minimum Accredited Fall Arrest and Basic Rescue (SAQA Unit Standard 229998 & 229995). A Rescue Kit (Contents of the Rescue Kit as per the Fall Protection Plan, and as determined by the type of working from a fall risk position that is being conducted on site) must be available at all times on site. The site must have at least one Accredited Fall Arrest Rescue Co-Coordinator on site (SAQA Unit Standard 229995, 230000, 229999) that is able to take charge and conduct a rescue if required.

Note: To be implemented in conjunction with the requirements for Elevated Work and in conjunction with the Fall Protection Plan.

5.8.23 Work Platforms

The Contractor must ensure that all working platforms, be they permanent, temporary or portable, 1.5 meters or more in height, is fully decked, including toe boards, and fully hand railed. Where it is not practical to have handrails or there is a need to work outside handrails, the use of an approved safety harness, with lanyard attached to a secure anchorage is required.

5.8.24 Suspended scaffold Platform

The Contractor must implement and comply with OH&S Act - General Safety Regulation 13F. Suspended platforms may only be used on site with prior written approval from KwaZulu Natal Province-Agriculture and Rural Development Republic of South Africa Construction Manager.

A Contractor must ensure that all suspended platform work operations are carried out under the supervision of a competent person who has been appointed in writing, and that all suspended platform erectors, operators and inspectors are competent to carry out their work.

5.8.25 Formwork/False Work and Support Work

The contractor must implement and comply with Construction Reg. 12. The competent designer is to be appointed in terms of CR 12. Furthermore, all formwork/false work and Support Work must be designed and signed off by the appointed designer CR12 who is a structural engineer, along with an inspection of the installation by the designer CR12 detailing that it has been erected correctly before work continues.

All persons working on formwork/false work and support work must be trained for working at heights with a minimum of an Accredited Fall Arrest Course (SAQA Unit Standard 229998). The supervisor of the formwork/false work and support work must be trained at a minimum Accredited Fall Arrest and Basic Rescue (SAQA Unit Standard 229998 & 229995). A Rescue Kit (Contents of the Rescue Kit as per the Fall



Protection Plan, and as determined by the type of working from a fall risk position that is being conducted on site) must be available at all times on site. The site must have at least one Accredited Fall Arrest Rescue Co-Coordinator on site (SAQA Unit Standard 229995, 230000, 229999) that is able to take charge and conduct a rescue if required.

5.8.26 Ladders (Portable)

The contractor must implement and comply with OH&S Act - General Safety Regulation 13A.

All ladders used on the site is constructed and used in compliance with the OH&S Act and Regulations.

Ladders, which provide access to a working platform, must extended at least one meter above the platform where it provides access, and is secured to prevent slipping.

Timber ladders must not be painted other than with clear preserving oils, clear varnishes or clear plastics.

Ladders, which are in a damaged condition, must not be used and must be labelled accordingly and removed from the Premises.

All Ladders must be numbered, logged in a register, and inspected monthly.

A ladder in use must be held by an assistant or must be properly tied down. No person is permitted to stand on the last rung of the ladder (ladders with red steps at the top indicate that that step is not to be stood on).

5.8.27 Suspended Loads

The contractor must implement and comply with OH&S Act - Driven Machinery Regulation 18

Contractors and their employees must keep out from under suspended loads, including excavators, and must not stand between a load and a solid object where they might be crushed if the load should swing. They must not pass or work under the boom or any crane or excavator.

Contractors and their employees must ensure that crane loads are not carried over the heads of any workmen.

When lifting pipes or containers with a hinged lifting bail, the crane hook is mounted or the load suspended by means of a sling. This is to prevent disengagement of the bail from the hook on occasions when the weight of the kibble is accidentally taken on formwork, etc.

Guide ropes to be used to prevent loads from swinging.

5.8.28 Pneumatic Tools and Compressed Air

The contractor must implement and comply with OH&S Act - Driven Machine Regulation 14

May only be used on site with prior written approval from KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Construction Manager.

It is illegal for a pneumatic tool to be operated by using a compressed gas cylinder. Pneumatic equipment must only draw supply from mobile air compressors or from compressed air lines installed within the premises after gaining permission from KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

When using the interlocking type of connection of an airline, connectors is secured with wire clips through holes provided to prevent accidental disconnection.

Compressed air must not be used for general cleaning purposes or be used to blow down dirty clothes on people.



5.8.29 Riding on and Operating Equipment

The Contractor must ensure his employees and those of his Subcontractors do not ride upon or attempt to operate cars, elevators, cranes or other moving equipment unless authorised and licensed to do so.

5.8.30 Fire and Emergency Equipment (Site)

The Contractor must provide and maintain all fire and emergency equipment. The Contractor must ensure all personnel familiarise themselves with locations of fire equipment in the vicinity of their work site. Work areas are clear, at all times, of any material, which could fuel a fire. A thorough inspection is made of the area at the end of any working period to ensure that no material is left at the work site or any situation left in such a manner that a fire or accident could result (All machines to be turned off at main switches, and cylinders to be close and hoses deflated.)

Electric welding, Oxy-welding or cutting, or any other fire hazardous equipment is not to be used inside or adjacent to electrical switch room, control room, cable duct, any electrical equipment or cables without the permission of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative

The Contractor must supply all fire extinguishers for his work as required on the site during the construction phase. Fire extinguishers are not to be used for any purpose other than their intended use.

The Contractor must ensure that his personnel are trained in the use of fire extinguishers to a minimum of an accredited Level 1 Fire Fighting course.

The objective for providing fire extinguishers will be to standardise on the type and make to eliminate confusion during emergencies

5.8.31 Confined Space Work

The contractor must implement and comply with OH& S Act - General Safety Regulation 5

Enclosed space work necessitates a Confined Space Permit. This may only be obtained from the authorised person nominated in writing and after approval by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

The responsibility for safe procedure, both at the time of entry and during the entire operation of entering and working in confined spaces, rests with the Contractor. The Contractor shall ensure that adequate steps have been taken to eliminate or control hazards. Before working in an area which contains dust, the area is to be ventilated and hosed down to settle and dampen the dust.

The Contractor must provide all necessary equipment to manage confined spaces, including all necessary monitoring and rescue equipment (such as tripods, breathing equipment and the like).

The Contractor must ensure all persons working in a confined space or managing entry to a confined space are appropriately trained.

Compulsory - Continuous monitoring, trained rescue teams, radio communication & adequate ventilation and resuscitation equipment.

5.8.32 Excavations, Trenches

The contractor must implement and comply with Construction Regulation 13 OH&S Act - General Safety Regulation 13

The Contractor must ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing.



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All handrails and fencing must comply with Guidelines and legal requirements as set out in paragraph **5.10** Barricading is provided around all holes or openings to prevent any person being injured as a result of a fall.

Where it is impracticable to provide fixed guard railing, effective removable barriers are provided at all unguarded openings in guard railing or floors, and is maintained in position at all times until the hazard no longer applies.

When excavations are necessary across roadways, approval is sought from KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative. Where necessary, "Detour" notices and detour routes is provided.

Warning signs and flashing warning lights at night is provided in suitable positions to warn any persons approaching the area of the location and extent of any excavation.

Personnel must report any unusual conditions that may be found, such as underground power lines, pipe lines, sewers or inconsistent materials, immediately to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative and, if a risk to personnel safety is involved, stop all work until approval to continue is granted by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

Safe access and egress to be provided and sides battered or shored to the satisfaction of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

All excavations must be on register and inspected daily before work commences & after inclement weather by the Contractors appointed competent person, declared safe and his findings noted in the said register.

Note: No loose material is within 3m of the excavation edges.

5.8.33 Noise

The contractor must implement and comply with OH&S Act - Environmental Regulation 7 and the Noise Induced Hearing Loss (NIHL) 2003 Regulations.

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa needs to meet statutory requirements on limitation of noise emitted by machines and equipment. When Contractors personnel are required to operate such equipment, noise levels at the operator position must not exceed an equivalent level of 85-dB (A) during normal working conditions. Employees working in the vicinity must not be subjected to an equivalent continuous level of 85-dB (A) during normal operating conditions. Comply with time periods and PPE requirements where applicable.

The sound level at any works boundary caused by mobile equipment must not exceed the night-time background level pre-existing the operation of the equipment. At no time must the noise emission of the equipment cause the sound level at the nearest residence to exceed 40-dB (A). Sound levels is measured in accordance with **SANS 10083**, with due allowance being made for tonal or impulsive components. A plot plan of project or plant must use to identify the measuring points with date, time and frequency duration of measurement.

Symbolic safety signs, warning employees re the hazard of noise in the area, shall be erected at all entrances to the area and in a position where it is clearly visible.

5.8.34 Ventilation

The contractor must implement and comply with OH&S Act - Environmental Regulation 5

For any job, which generates excessive dust or fumes (for example welding), an effective exhaust system is used.



5.8.35 Lighting

The contractor must implement and comply with OH&S Act – Environmental Regulations and Schedule E of the Regulation.

Where natural lighting is inadequate, artificial lighting is provided in all work areas, access ways and for rescue equipment.

Portable lights must have adequate stability and be fitted with a mechanical guard to protect the lamp.

Temporary festoon lighting is of the 'all insulated' type and be supported at least 2.5m above the floor if possible.

Hand lamps are of the 'all insulated' type.

Illumination checks are to be performed for night time work to check conformance to minimum light requirements.

Emergency lighting, when working during night time, for safe evacuation when dark shall be installed according to requirements and shall illuminate during power failures.

5.8.36 Stacking Material

The contractor must implement and comply with OH&S Act - General Safety Regulation 8

Stacking to be neat and safe.

Before stacking any material, the Contractor, sub-Contractor or their employees must consult KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative for allocation of a stacking area.

5.8.37 Manual Handling of Materials

Contractors must ensure that no employee is required or permitted to lift or move by hand any heavy object that is likely to cause a risk of injury.

Adequate PPE is issued and used if required.

5.8.38 Heat Stress

The contractor must implement and comply with OH&S Act - Environmental Regulation 2 (4)

To prevent heat stress illness, the Principle Contractor must plan suitable rest breaks for all employees and Sub-Contractors exposed to excessive ambient or radiant heat.

5.8.39 Explosives

Comply with: Explosives Act 26 of 1956 and the Explosive regulations 2003

Explosives must not be brought onto the site or be used without the express permission of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

Explosives or detonators must not be stored on the site.

Detonators and other explosives must never be carried in the same box.

The provisions of all relevant Acts & Regulations are strictly observed.

- Have license provided by Department of Labour,
- Notify Department of Labour for explosive work to be conducted.



- Appoint competent Explosive manager and supervisor.
- Transportation of dangerous goods permit and relevant sign to be on an explosive transporting vehicle.

5.8.40 Crane Requirements

The contractor must implement and comply with Construction Reg. 22 regarding Tower Cranes and OHS Act Driver Machinery Regulation 18

All Contractors must adhere to the following before any Crane is allowed to operate on Site:

No Crane is used at arrival on Site before copies of all documentation have been handed over to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Safety Co-ordinator and the Crane have been checked by the competent KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Construction Manager

Crane Test Certificate

The Certificate is no older than 3 (three) months, and must cover the following:

- Ropes
- Hooks
- Slew Brakes
- Outriggers & Pads
- Boom & Guides
- Anti - Two-block Device
- Load Indicating System
- Boom OH & Save Wheels Condition
- Crane Brakes and Air System

Copies of all documentation are kept in the Crane at all times.

All Cranes is fitted with the following Safety Devices - As per the Machinery and Occupational Safety Act. No. 6 of 1983. (Driver Machinery Regulation 18) including KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa revised best practice).

Regulation 18.2 (Revised to include additional KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa requirements)

A Brake or other device capable of holding the maximum mass should the power fail, or which is such that it must automatically prevent the uncontrolled downward movement of the load when the raising effort is interrupted; and

A Limiting device which must automatically arrest the driving effort when:

- The Hook or Load attachment point of the Power Driven lifting machine reaches its highest safe position
- In the case of a Winch Operated lifting machine with a lifting capacity of 5000kg or more; the load is greater than the rated mass load of such machine



Regulation 18.2.9 (Revised to include additional KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa requirements)

No user must use or permit any person to use a Jib-Crane with a lifting capacity of 5000kg or more at a minimum Jib radius, unless it is provided with:

- A load indicator that must indicate to the operator of the Jib-Crane the mass of the load being lifted, provided that such a device must not require manual adjustment from the application of the load, to the Jib-Crane, until the release of the load
- A Limiting Device which must automatically arrest the driving effort whenever the load being lifted is greater than the rated mass load of the Jib-Crane

Regulation 18.2.11 (Revised to include additional KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa requirements)

The user must ensure that every lifting machine is operated by an Operator specifically trained for a particular type of lifting machine; provided that in case of fork lift trucks with a lifting capacity of 750kg or more, and Jib-Cranes with a lifting capacity of 5000kg or more at minimum Jib-radius; the user must not require or permit a person to operate such lifting machine unless the operator is in possession of a certificate of training, issued by a person or organisation approved for the purpose by the chief inspector.

Mobile Crane near Power Lines

No mobile cranes are to be used near overhead power lines until KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative has been notified and provided safe access conditions and a valid permit to work is obtained.

Mobile cranes are effectively earthed when working in the vicinity of electrical wires. Assume that all electrical equipment and wires are live and avoid them.

5.8.41 Material Hoists

The contractor must implement and comply with Construction Regulation 19.

5.8.42 Water Environments

The contractor must implement and comply with Construction Reg. 26.

Notably the Contractor must provide:

- Provisions to prevent persons falling into water (Solid Barricading).
- Provisions must be made for rescuing a person in danger of drowning (Qualified Lifesaver, Lifesaving procedure specific to the location and access/egress of the body of water).
- Lifejackets must be provided to all employees who are exposed to the risk of drowning by falling into the water. Supervision is required to ensure Life Jackets are worn and that procedures and control measure are implemented.

5.8.43 Motor Fuel and Flammable Liquids

The contractor must implement and comply with OH&S Act - General Safety Regulation 9 and Temporary storage of flammable liquids on construction sites Construction Regulation Reg.25

Contractor's proposals to store fuel on site must have written approval from KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative. The amount of fuel allowed to be stored must depend on site conditions and Statutory Regulations.



Storage areas to be provided with a bund wall to contain 110% of the maximum volume of the container. Drip trays of sufficient size to be provided at tap of points.

Storage tanks are to be clearly marked with a "Flammable Liquid, No Smoking & No naked Flame" signs and be clearly marked to indicate contents of the tank.

Adequate numbers of dry chemical fire extinguishers, each with a minimum capacity of 4.5kg, is provided, installed and maintained.

Before a machine is refuelled, the motor is stopped. Refuelling must take place at designated safe areas and appropriate warning signs installed.

Inform the Fire Chief of the local Authority for recommendations of storage facilities.

5.8.44 Diesel Storage

May only be on site with prior written approval from KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Construction Manager.

The Contractor must ensure that:

- Storage should be well clear of buildings
- Storage areas is kept free from all combustible materials
- All danger signs are prominently displayed e.g.
- No Smoking
- No Naked Flames
- Adequate Fire Fighting equipment is available
- Diesel tanks is installed in a bunded area; bunded area is able to contain 110% of tank capacity
- Bund walls is plastered on the inside
- Bunded area must have a solid concrete/cement floor
- Bunded area must have a functional drain valve
- Loading/Fuelling bay is a solid concrete base with a spillage trench leading to a spillage sump to contain any spillages
- All equipment is bonded
- All electrical lighting and equipment are of an approved flameproof type
- No other material/equipment is stored in the bunded area

5.8.45 Hazardous Material

Flammable liquids

The contractor must implement and comply with Construction Reg. 25 regarding use and temporary storage of flammable liquids on construction sites

Hazardous substances

The contractor must implement and comply with the OH&S Act - Hazard Chemical Substances Regulations 9

Hazardous substances are any substance or materials specified in statutory regulations as being hazardous.



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Prior to any hazardous substances being brought onto the site or produced on the site, the Contractor must supply KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative with the following:

- Material Safety Data sheets (MSDS) in accordance with the requirements of the OH&S Act – Regulations for Hazardous Chemical substances
- Proposed arrangements for safe storage
- Purpose for bringing the hazardous substance onto the site
- Proposed methods for handling/usage
- Proposed method of disposal
- Proposed method of transportation
- Risk assessment with specific reference to compatibility with other chemicals

The information is to be provided at least two (2) working days prior to the expected commencement on site.

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative must only approve the use of any hazardous substance after receiving a copy of the Materials Safety Data Sheet for the substance from the Contractor. Such substances are not to be brought onto the site until KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative's approval is received.

The Contractor must ensure that all-necessary usage and storage precautions are taken and that safety equipment, including antidotes, if necessary, is available on the site.

Note: Cleaners, Solvents and Hazardous Materials Not to be stored with flammable liquids!

5.9 Incident Management

5.9.1 Incident Reporting System

The contractor must implement and comply with OH&S Act - General Administrative Regulations 6 and 8.

The Contractor must have an accident and incident reporting system that is compatible with the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa standards and all applicable statutory requirements. Any incident or "near miss" involving the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa, the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated representative, the Contractor its subcontractor's or any third party's personnel, property, plant or equipment, is verbally reported immediately to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative, whether or not injury to personnel or damage to property or equipment resulted. A brief written report stating the known facts and conditions and including a preliminary assessment of most likely consequence potential of the incident in the circumstances is provided to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative by the end of the shift.

The Contractor is reminded that this Incident reporting system does not exempt the Contractor from providing accident reports required by Statutory Authorities, in particular, the Contractors' responsibility for reporting accidents in accordance with the requirements of the **OH&S Act & Compensation of Injuries and Diseases Act**.

Contractors must complete and keep record of Annexure 2 as required by legislation.



5.9.2 Serious Incidents

For any serious incident involving a fatality, or permanent disability, the incident scene is left untouched until witnessed by a representative of the Police. This requirement does not preclude immediate first aid being administered and the scene made safe.

5.9.3 Incident Report and Close Out

The Contractor must investigate the causes of all work accidents and significant incidents and must provide KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative with the results of the investigation and recommendations on how to prevent a recurrence. A formal root cause investigation process for all high potential incidents is followed.

The written report must include:

- Date, time and place of non-conformance
- Detailed description of non-conformance
- Type of injury (if any)
- Medical treatment provided (if any)
- Persons involved
- Corrective action to prevent recurrence

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative must have the right to designate a representative to participate in the investigation at KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative's sole discretion.

Where the results of any investigation are not completed and issued to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative within 24 hours from the time of occurrence, the Contractor must supply to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa 's nominated Representative a written update every 24 hours, of the progress and results of the investigation until the incident report has been fully completed and issued to the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa

Where required by Statutory Requirements the Contractor is responsible for incident reporting to the appropriate Authority.

5.9.4 Corrective Action

The Contractor must:

- Ensure all hazards, incidents and accidents, including near misses, are investigated fully and documented
- Take corrective action to eliminate the cause of the incident or accident to prevent recurrence
- Review inspection and audit reports to identify areas of improvement

For the purposes of this specification, a Health & Safety incident is taken as an incident involving harm or potential harm to any employees of the Contractor, the community, subcontractor and/or the work environment, or where the physical well-being of a person, the community or the work environment has been placed at risk, e.g. a near miss.



5.9.5 Injury Management

The aim of injury management is to ensure appropriate and adequate medical treatment is provided to injured employees to enable a quick and efficient return to the workplace.

A local doctor has been nominated for the Project to which the Project medical staff will refer all injured employees requiring medical assistance in the first instance. If the Contractor does not wish to utilise the services of the Project doctor the Contractor must make alternative arrangements and KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa is to be notified in writing of the doctor to be used. The treatment of injured personnel will not be compromised and the immediate needs will be referred as required by the Project paramedics.

The doctor is briefed on the commitment by the Contractor to injury management, alternative duties, and early return to work programs and rehabilitation.

Effective injury management must commence immediately after the accident has occurred and is to include:

- Counselling of the patient
- Referral to the nominated medical practitioner via the Project First Aid Centre (where required)
- Follow up, including personal off Site visits by the Contractor (where required)
- Provision of off Site personal, family and social assistance where required
- Formal assessments of employee capabilities prior to return to work; and
- Provision of alternate meaningful duties, where appropriate

5.10 Site Management

To be read in conjunction with other Sections of the Contract.

5.10.1 Notices

The Contractor must provide to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative copies of any notices, correspondence or directions of whatsoever nature issued by any relevant Government Authority concerning Health and Safety within 8 hours of the dispatch and/or receipt of such notice, correspondence or direction, and must immediately comply with same.

5.10.2 Incorporation of Documents into Contract

The Contractor must comply with all Site Rules/Site Instructions issued to it by the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa , which are by this reference incorporated into and made part of this Contract.

5.10.3 Interpretation of Safe Working Instructions

The contractor must implement and comply with OH&S Act - Section 8 (2) (j)

If any site personnel are in doubt as to the meaning of any safe working instructions, they must consult their supervisor who issued them or the site office of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.



5.10.4 Emergency Response Manual

The Contractor must provide KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa with both electronic and hard copies of the Contractor's Emergency Response Manual that sets out its procedures for fire spill response, rescue from heights and other relevant emergency response procedures. Those procedures are made compatible with the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa emergency response procedures for the Site prior to commencing Site activities. Unforeseen conflicts between the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa policies and those of the Contractor is addressed and resolved by a direction from KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative prior to the Contractor commencing the work.

5.10.4.1 Emergency Drills

The Contractor must conduct emergency response drills (including, but not limited to, fire, rescue and spill drills) to test the effectiveness of its emergency procedures and equipment, and the knowledge and proficiency of all response personnel. The timing of such drills is agreed and is the responsibility of the Contractor after consultation with KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative. The Contractor must report the test results to the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa , or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative if requested and as required by any regulatory agency.

5.10.4.2 Fire Fighting

The Contractor must prominently publish, in all relevant languages for all areas of operation under its control, the procedures to be carried out in the event of fire.

The Contractor must train all employees in the procedures to be followed in the event of a fire and/or a fire alarm.

Contractors must familiarize themselves with locations of fire equipment in the vicinity of their work site. Work areas are clear, at all times, of any smouldering material which could fuel a fire. A thorough inspection is made of the area at the end of any working period to ensure that no smouldering material is left at the work site or any situation left in such a manner that a fire or accident could result.

Electric welding, oxy-welding or cutting, or any other fire hazardous equipment is not to be used inside electrical switch rooms, control rooms, cable ducts or adjacent to any electrical switch room, control room, cable duct or adjacent to any electrical equipment, cables or conveyor belts without the permission of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative.

The Contractor must supply all fire extinguishers for its work as required by the statutory regulations governing the Site. Fire extinguishers are not to be used for any purpose other than their intended use.

Fire precautions on construction sites

In addition to the guidelines above the contractor must implement and comply with Comply with: Construction Regulation 29

Good Housekeeping plays a major role in Fire Prevention.

The Contractor must ensure that:

- All Flammable / Combustible material is removed on a Daily basis
- The minimum amount of Flammable Liquids (Petrol, Thinners and Paint) is brought on to Site



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- All required Safety signs is posted if any work is carried out with any Flammable / Combustible materials i.e. NO SMOKING, NO NAKED FLAMES and NO UNAUTHORISED ENTRY
- That Supervisors to do constant and regular inspections to ensure adherence of Procedures

Fire Fighting and Training

It is the responsibility of the Contractor to ensure that supervisory staff and all persons involved in grinding, cutting or welding is familiar with firefighting procedures and the use of firefighting equipment.

Maintenance

All Fire Extinguishers must be:

- Conspicuously numbered
- Entered in a register
- Visibly inspected monthly by a competent person
- Inspected at least every six (6) months by an accredited supplier
- Results entered in the register and signed

Damaged Equipment

Fire extinguishers with damaged or broken seals are to be returned to an accredited supplier for re-charge / repair. Details are entered in the register.

High Fire Risk Areas

Cognisance is taken of the fact that certain areas might be designated as High Fire Risk Areas on account of the large number of rubber-lined, polyurethane and Fiberglas components etc. present. As such, additional precautions have been instituted to ensure that strict control is exercised over all grinding, cutting and welding operations being carried out in these areas.

5.10.5 Safety Equipment

The Contractor must ensure that all its safety equipment is regularly maintained and tested, that it is always in a serviceable condition, and that the Contractor's personnel and its subcontractor's personnel are instructed, trained, competent and, where required, certified in the use of such safety equipment. The safety equipment must comply with all applicable laws, rules, and regulations.

5.10.6 Weather Precautions

The Contractors' Emergency Response Manual must include procedures for adverse weather conditions (high winds, flooding, storm surge, lightning, etc.). In the event of impending adverse weather or other conditions, the Contractor, in consultation with KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa and the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative must decide whether to institute such precautionary measures in connection with the carrying out of the work, for example emergency temporary bunding, tie down of cranes and partly installed structures, etc.

5.10.7 Vehicles

Access to Site

The Contractor must co-ordinate his intra-premises vehicles (limited to valid permit holders issued by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative only).



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Gates may be used by light vehicles with valid permits and must only be used for heavy vehicle movements with the prior written consent of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

Vehicles and mobile equipment must not be permitted entry to the premises without the written approval of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Security personnel.

Upon Written application to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative, the Contractors' senior supervisory personnel may be issued with gate passes permitting access to the premises for nominated private vehicles.

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa reserves the right to search any vehicle on the premises or when entering or leaving the premises, whether privately owned or otherwise.

The Contractor is solely responsible for the safety and security of any of his vehicles (including private vehicles) on the premises.

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa must deny access to the premises of any driver and/or vehicle not issued with a gate pass and/or failing to comply with KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa safety requirements.

The Contractor must attach identification markers provided by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa to all of his vehicles permitted to enter the site.

A current maintenance logbook is required for all cranes and large plant equipment, and is available for inspection at any time by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative. The logbook is located in the cabin of the said crane or plant equipment. Cranes may only enter site after submission of relevant documents and when tested and approved by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative, and relevant authorisation is issued.

Drivers of all construction self-propelled mobile equipment must carry a valid appointment with them at all times.

Whenever entering the works, the Contractor is to supply to the Main Gate, a list of all equipment and materials being brought on site, which is checked prior to entry being permitted. The list is retained and used for checking the equipment and materials being taken out of the gate when the Contractor is leaving the works.

Vehicle Drivers

The Contractors vehicle drivers must:

- Comply with all safety, direction and speed signs and drive in accordance with the provisions of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa site traffic rules
- Ensure that vehicle loads are properly secured and loaded onto vehicles
- Not divert from designated routes or travel on unsealed roads/areas without the prior written approval of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative
- Obey all instructions given by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Security/Emergency Services Officers
- Ensure that vehicles are not overloaded
- Traffic fines will be for the driver. KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa will not be liable for paying fines



Licensing of Vehicle Drivers

Unlicensed persons must not be permitted to control vehicles on the premises.

The Contractor must not permit his employees or employees of his Subcontractors to operate equipment or mobile plant without appropriate appointment. (To be carried by driver at all times)

Registration of Vehicles

All vehicles used by the Contractor on the premises are roadworthy and registered by the appropriate Traffic Authority.

All vehicles used by the Contractor on the premises are maintained to standards of the **Road Traffic Act 29/1989**.

The Contractor must provide evidence to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative that all mobile cranes, forklifts, front-end loaders, back hoes, elevated platforms, road vehicles or mechanical equipment of any kind, which is used in complying with the Contractors' obligations under this Contract, comply with the requirements of the **Occupational Health & Safety Act 85/1993** and regulations and of the **Road Traffic Act 29/1989** prior to that equipment being brought onto the premises.

In the event the equipment is not owned by the Contractor, the Contractor is still responsible for ensuring all conditions are complied with by all of his Subcontractors or hire companies.

On-Site Vehicles

Owing to heavy traffic operating in and through the construction site and in the interest of general safety only the minimum necessary number of Contractors vehicles is permitted on site.

When not travelling through the site the Contractors haulage vehicles or cranes is parked within his site lay down area. Only the Site Manager's personal vehicle is permitted to park in the Site Offices area.

All cars are parked on site are parked at the owner's/Contractors' own risk!

Accidents

In the event of an accident on site in which The Contractors' employee or Sub-Contractor is involved, the driver must remain at the scene until the accident is attended by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative, or the Contractor has received approval from KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative, to leave the scene, unless medical attention is required.

Vehicle Safety

In order to maintain a "Zero Tolerance" Policy in the use of self-propelled equipment the following rules is adhered to at all times on Site or any other plant.

As far as driving / operating of any self-propelled vehicle / equipment on site KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa requires that the driver / operator of such equipment is appointed in writing by the Contractors Construction Manager and confirm that the person has attained the age of 18 years and:

- Does not suffer from defective sight or hearing or any other infirmity, mental or physical, likely to interfere with the efficient discharge of his duties
- Has completed a satisfactory course of training; and has been found competent or in possession of a driver's license issued by a provincial authority for which authorisation is granted

Rules

Traffic rules and signs such as speed signs; stop signs is obeyed at all times.



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As a result of the large amount of heavy equipment and other vehicles in operation on site all vehicles / equipment; drivers / operators must adhere strictly to all rules and regulations.

Should any person be stopped for not adhering to regulations, his permit is withdrawn and he must not be able to carry on with his normal duties. The driver of the vehicle is responsible for the safety of his passengers in or on the vehicle.

- No passengers are allowed to be on the back of any vehicle in motion or sit on the sides of the vehicle or having any part of his body hanging over the side of the vehicle whilst in motion.
- No passengers are allowed in or on the back of a vehicle with any unsecured load
- Under no circumstances must any person try to secure any load manually whilst the vehicle is in motion. Loads on the vehicle is properly secured before the vehicle is allowed to move
- No passengers are allowed to sit on top of the load, if the load is higher than the sides.
- The 2-man rule is always applied. Only 2 persons (the driver and one passenger) are allowed in front of an LDV
- No passengers are allowed on mobi-lifts, elevated work platforms (EWP), mobile cranes, tractors, fork trucks or dumpers or on trailers behind vehicles
- No vehicle is left with the engine running or the keys in the ignition, if the drivers leave the vehicle unattended
- Should the load be moved and transported by means of a mobi-lift, guide ropes must always be in use. Persons guiding the load are not allowed between the lift and load, and the load must, under no circumstances obscure the view of the driver. The mobi-lift must travel at a slow walking speed

In the event of an accident in which The Contractor's employee is involved, the employee must remain at the scene until KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative or the Police arrive on the scene or until KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative, or the Police authorises the employee to leave the scene, unless the employee needs medical attention.

Transportation and Securing of Loads

Long and Wide Loads

When transporting long and wide loads, the Contractor must ensure compliance with the Road Traffic Regulations. KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative is notified so those necessary requirements can be made where an escort may be necessary and so that the appropriate entrance can be arranged.

Securing of Loads on Vehicles

It is unacceptable that a person is injured or property damaged as a result of loads being transported on site without appropriate securing.

Principles

- Any load-carrying vehicle is loaded, secured and driven in such a way so as to prevent injury to any person, or damage to any property
- The vehicle should be suitable for the type and size of the load
- The load is correctly positioned on the vehicle



- The load-securing equipment and vehicle restraint structures is strong enough for their intended purpose and is functional
- Loads is restrained to prevent unacceptable movement
- The driver must take into account the changes in the vehicle's stability, steering and braking characteristics influenced by the load

What Truck Drivers Must Do:

- Secure the loads according to the "Principles" as detailed above.
- If unsure, seek advice before proceeding

What Dispatch Points Must Do:

- Check that the load has been restrained correctly before the truck is allowed to leave

Note: Nobody may ride on the back of any loaded vehicle.

5.10.8 Commencement of Work

Prior to the commencement of any Site work, the Contractor must consult with KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative regarding the availability of and access to the item or area of the plant to be worked on and regarding instructions relating to any special or unusual safety procedures that are to be followed.

The Contractor must not commence work on a particular item or area of the Site until KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative has provided the appropriate "authority to commence work".

5.10.9 Notifications

5.10.9.1 Electrical Work (Power Supply)

The Contractor must submit to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative and the Power Authority, in writing, notification of completion of any power supply system electrical work prior to power being supplied. No further work is undertaken without the written acceptance of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative and the Power Authority. All electrical work is carried out in accordance with the relevant statutory requirements. The Site Construction Manager and the Master Electrician must approve all electrical work before being energised.

5.10.9.2 Plumbing Work

The Contractor must submit to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative, in writing, notification of completion of any plumbing work prior to water being supplied. No further work is undertaken without the written acceptance of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative. All plumbing work is carried out in accordance with the relevant statutory requirements.



5.10.10 Completion Inspection

On completion of any work on Site the Contractor must notify KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative, and conduct a final inspection to ensure that all items and areas of plant are left in a safe, clean and operational condition.

5.10.11 Housekeeping

The contractor must implement and comply with Construction Reg. 27

The Contractor must maintain all work areas in a tidy state, free of debris and rubbish. Unless directed otherwise, the Contractor must dispose of all debris, rubbish, spoil and hazardous waste off site, outside KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa property in a designated and authorised area or facility. The Contractor should make itself aware of the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa waste management plan and collection and disposal arrangements and align its waste management program accordingly.

In cases where an inadequate standard of housekeeping has developed and compromised safety and cleanliness, KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative has the right to instruct the Contractor to cease work until the area has been tidied up and made safe. Neither additional costs nor extension of time to the Contract is allowed as a result of such a stoppage. Failure to comply must result in site cleaning by another Contractor at the cost of the non-complying Contractor.

The Contractor must carry out regular safety/housekeeping inspections at least weekly to ensure maintenance of satisfactory standards. The Contractor must document the results of each inspection and must maintain records for viewing by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

At the time that the Contractor establishes site facilities and permanently mans the site, or at an alternative time agreed between KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa and the Contractor, the Contractor must assign dedicated housekeeping crews.

These crews must assist in maintaining a clean and safe working environment by patrolling the Contractors' work area (including KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa site offices, lay down areas and construction site) and performing such duties as ensuring that scrap material, general refuse, rubble and other forms of unwanted materials are removed from the site within four (4) hours of generation.

Housekeeping crews must also actively assist in creating and maintaining a safe work environment by being aware of unsafe conditions, bringing these conditions to the attention of appropriate personnel, and by direct intervention through tasks such as ensuring leads and hoses are placed in a manner which avoids the creation of trip hazards or potentially unsafe conditions.

Note: No shift may commence without and/or before proper housekeeping is in place.

5.10.12 Maintenance

All equipment and structures both fixed and temporary are to receive regular maintenance, at intervals no longer than that recommended by the manufacturer, under a planned maintenance system to ensure the safety of personnel who are responsible for operating the equipment.

The Contractor must maintain copies of all current tests and maintenance certificates relating to cranes, lifting beams, pulley blocks, lifting gear and slings, and must make them available to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative upon request. No



lifting beam or spreader bar is used unless a current Certificate of Inspection is available and the SWL is stamped on the equipment.

5.10.13 Defect Reporting and Correction

Where defects are identified during any routine inspection, pre-start check or during operation or use of any tools, equipment, motor vehicle, structure, etc. it is immediately reported for repair and the tools, equipment, etc. appropriately tagged to identify the defect and to limit further use until repairs have been completed and re-inspection carried out. Such defect reports are in writing.

5.10.14 Contractor Health & Safety Documentation

The Contractor is required to supply to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Health & Safety documentation as indicated in this Specification and as directed by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa throughout the Contract.

5.10.15 Electricity

The contractor must implement and comply with OH&S Act Electrical Installation Regulations OH&S Act Construction Reg.24

All electrical installation is carried out by an appointed and qualified ticketed electrical installation electrician. The Contractor must keep a record of his approval of the installation. The electrical installation shall be approved by a Master Electrician.

Temporary electrical installations shall be inspected on a weekly basis by a competent person and registers of such inspections shall be kept.

5.10.16 Wearing of Short Trousers/Pants on Site (Prohibited)

Long trousers / pants are worn in the construction areas or in any workshop in the lay down area.

5.10.17 Intoxicating Liquor or Drugs

The contractor must implement and comply with OH&S Act – General Administrative Regulation 10

Any person found on the site or attempting to enter site, in possession of or consuming intoxicating liquor or illegal drugs, or considered unfit for work from the apparent influence of intoxicating liquor or illegal drugs or prescription drugs, is removed from the site.

5.10.18 Access Control

The Contractor must comply with KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa access control systems applicable to the Plant as well as specific to the construction site.

Failure to comply with these requirements is viewed as a major safety breach requiring disciplinary action of removal from site and/or suspension without payment.

5.10.19 Trespass

The Contractor and his employees must not trespass on any land outside the limits of the site, as determined by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative, and must ensure that all fences are maintained during the Contract. If instructed by KwaZulu Natal



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Province- Agriculture and Rural Development Republic of South Africa Representative, the Contractor must remove from the site any employee who offends against the provision of this clause.

The Contractor and his employees are required to work only in the specified construction areas and access to these areas is only by routes specified by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

5.10.20 Visitors to Site

Visitors to the site are required to comply with site-specific safety induction prior to being allowed access to site. Visitors are required to conform to the Site PPE requirements and should arrive at site with the appropriate PPE.

The Contractor must refer all applications for site inspections to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative. The Contractor must not arrange inspections by visitors to the site without the prior approval of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative.

The Contractor, at KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Representative's direction, may allow casual visitors, who will be on site for less than one (1) day, access to the site without attending an induction, providing that, for the full period the visitor is on site, the visitor remains in the care and custody of a person who has been properly inducted.

5.10.21 Construction Welfare Facilities

The contractor must implement and comply with Construction Reg. 30.

5.10.22 Emergency Evacuation

The contractor must implement and comply with OH&S Act – Environmental Regulation 9

The Contractor must establish and implement an emergency evacuation procedure in line with the Site Specific Emergency Plan and ensure that in the event of fire, explosion, flooding etc. all staff leave their place of work at the sound of the fire gong or siren and proceed to a safe area demarcated for the purpose, away from offices and stores buildings. The Contractor must provide a siren markedly different from that of the operating plant area.

The area so selected is demarcated and the relevant "Assembly Point" sign displayed. An evacuation route diagram is visibly displayed in all buildings.

An Emergency Evacuation Procedure is drawn up; all staff members and Contractors given awareness training and participate in regular evacuation drills.

The procedure must be submitted to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Project Manager.

5.10.23 Safety Officer Health & Safety Roles and Responsibilities

Contractors Site Safety Officer:

- Implement and maintain the Safety Management Plan on site. Communicate Plan to Sub-Contractors and ensure compliance to the Safety Management Plan
- Advise the Site Management team on safety issues and suggested solutions
- Report directly to the Contractors Construction Manager and act on his authority regarding safety issues
- Promote a culture in which safety is the prime concern and must never be compromised
- Promote the involvement of all employees and Contractors in improving safety



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- Focus on and establish a culture of the elimination of unsafe acts, and rectification of unsafe conditions quickly, by Management and supervision
- Ensure self and others safety awareness at all times
- Facilitate and participate in all Contractors and Sub Contractors accident /incident investigations
- Ensure that all incidents are thoroughly investigated to avoid re-occurrence
- Participate in and contribute to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Management team Safety Plan
- Ensure that all involved KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa and Contractors personnel prior to commencement of any work complete Risk Assessments (RA) and Daily Safety Task Instruction (DSTI). Then, by a review process, verifying that the development process is appropriate, communicated and understood by the users and subsequently complied with by means of at least two daily site inspections
- Ensure SMI boards are erected in each working area, and the following minimum information is displayed – Method Statement, Risk Assessment, DSTI, Construction Manager, Supervisor, First Aider and Safety Representative
- Coordinate all safety induction training requirements and conduct KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa specific induction for KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa and Contractor supervision
- Coordinate site accesses and security
- Coordinate and implement comprehensive daily incident reporting by management, supervision, foremen and Safety Officers
- Compile and present a weekly safety report to include: Incident trend analyses & preventative measures. Injury trend analysis and preventative measures. Contractors & Sub Contractors Planned Tasked Observations for week ahead, DSTI quality and effectiveness. Management walkabouts including participation and findings. High risk activities for the week ahead. Risk Assessment plan for week ahead, based on the construction plan. Statistics for previous week regarding man-hours, complement, RA's completed, induction & medicals (entry and exit). Estimates for week ahead regarding, complement, RA's, induction & medicals (entry and exit)
- Conduct a Bi –weekly internal Contractor & Sub Contractor audit to ensure implementation and continuous compliance with the Safety Management Plan and legislative compliance. Record findings and issue action sheets for deviations to include an action close out plan and report
- Accompany injured people to doctor/hospital and ensure prompt treatment and return to work. Report all Incitements in a timely manner in the case of a medical treatment/Lost Time Injury cases immediately (telephonic) to the Project Health & Safety Manager and follow it up with an initial Incident Notification and Significant Safety Occurrence (SSO) report before the end of shift and a complete investigation within 24 hours
- Coordinate and ensure the pre check and recording thereof for all tools, plant and equipment
- Final check and sign of RA's before submitting to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Project Manager for approval
- Implement and maintain the Construction Regulations



5.10.24 Risk Assessments (RA's)

- To be completed **one week** before the execution of a job, and submitted to KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Project Manager for approval, to avoid delays.
- Each Contractor must submit a RA plan that will also include a monitoring and review plan
- Attach **Safe Work Procedures** and **Safety Method statements** to Risk Assessments
- 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
- **General Risk Assessments will not be accepted**

RA Team to consist of the Contractors' Construction Manager, Specific Task Supervisor, and Specialists executing the job, Safety Officer and KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Supervisor and or Project Manager.

5.10.25 Daily Safe Task Instructions (DSTI's)

- Each Contractors' Supervisor and Foreman must, daily 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.

5.10.26 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.

5.10.27 Management - Visible Felt Leadership (VFL)

- The Contractors' Construction Manager, Safety Officer, supervisor and Foreman per area, must conduct and record a Daily Visible Felt Leadership checklist.

5.10.28 Health and Safety Experience board

The Contractor must provide a Health and Safety Experience board, to be approved by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Manager, displaying:

- Department of Labour Construction Permit Number (where applicable).
- Contractors Logo
- KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa Logo
- Manpower
- Lost Time Injury Frequency Rate -LTIFR



- Disabling injury frequency rate - DIFR
- Man-hours
- Incidents and injuries

5.10.29 Safety Management Information Notice Boards

The Contractor must provide Safety Management Information notice boards (SMI boards) in work areas per foreman, with the following posted:

- Relevant Risk Assessments
- DSTI
- Method Statements
- Weekly Safety Report
- Emergency Procedure
- Supervisors Photo and Contact detail
- First Aid Photo and Contact detail

5.10.30 Site Specific Health and Safety Rules and Requirements

The Contractor must provide, ensure implementation and comply with the following Site Specific Health and Safety rules and requirements

- Safe **Access and Egress** to and from work areas
- Good **Housekeeping** and Stacking Practices – continuous cleaning and clearing of work platforms after every shift. No work to commence before complying
- Safe and orderly routing of **welding cables, electrical extensions and air hoses**. Elevated out of walk ways on temporary hooks/racks
- **Rigging Studies** for all heavy and/or difficult lifts
- No lifting in **windy conditions** exceeding 30 km/h. (This is only a guide - it will also depend on Risk Assessment/Rigging study/Shape mass & Size of load and the capability of the Crane to be used!)
- Prohibiting certain work in **wet conditions** – elevated work, roof sheeting installation, etc.
- People may not be **transported** on the back of a bakkie and or truck. Never on top of material!
- **Elevated work** - Compulsory use of **Lifelines, Safety Harnesses & Fall Arrestors** including a height rescue system and training of rescuers. To comply with SABS-EN –353-355,358,360-365,795,813&SABS033, 1833, 341,564-567,892,1891,12277 and 4878 -Fall Right SA standards or equivalent - Attached at all times in elevated positions and use of double lanyards
 - **Scaffolding** to comply with Legal, SANS 10085 and KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa standards – Tagged to SGB Standards
 - Ladders on inside of frames, staggered every two meters with a safe landing platform
 - Trap door fitted on working platform
 - **Work benches** to be provided for onsite work
 - Riggers to be identified by means of **illuminating vests**



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- o **Solid Barricading** – Solid frame covered with orange netting – Excavations, Overhead Work, walkways and all Openings
- o Attaching of Tools and Equipment at heights – use **lanyards**
- o Wearing of **Gloves** applicable to task and approved eye protection for all activities
- o Use of **Spacers/Wedges** when fitting equipment
- o **Shields and fire blankets** to be used for grinding, welding & gas cutting operations to contain sparks
- o **Fire Extinguishers** – With people when doing hot work, on self-propelled mobile machines and at all fuel driven machines
- o **Guide ropes** to be used for all lifts
- o **Firewatchers** to be posted when commencing hot work in hazard prone areas
- o **Permits** to be obtained and adhered to
- o **Excavations:** Provide for shoring, battering back, soil and loose rocks to be 2 meters from edge and approved barricading
- o **Dedicated flagmen** with illuminating vests to be in control of movement of heavy mobile and earth moving equipment
- o Submit a **Safety incentive scheme** for approval, and provide for the cost for it
- o Equipment Safety Officer – **Computer with CD Rom and cell phone**
- o The **cradle to grave** principle is implemented and adhered to regarding spillage of hazardous and flammable substances
- o **Voltage reducers** fitted to all welding machines
- o **Concrete buckets** to be fitted with Safety Chains and opening wheels
- o **Earth leakage** units to be fitted to all portable generator sets and welding machines with electrical outlets
- o **Earth moving vehicles** to be fitted with prescribed rotating lights and operated with headlights on. Site vehicles to be fitted with whip aerials and rotating lights. Reverse hooters/back up alarms to be functional at all times
- o **Weatherproof caravan type connections** fitted to all electrical equipment and extensions when used externally in wet conditions
- o **Nine Inch Grinders** not to be used, unless fitted with backing plate
- o **All cranes** are fitted with: Anti two block cut out devices/Automatic load arrest systems/Automatic load limit devices and indicators/Gear lock on neutral and a waste safety belt
- o **All Self-propelled mobile machines** are fitted with Fire extinguishers and reverse hooters/ back up alarms
- o **Flashback Arrestors** at cylinders and torches and proper clamps (gas cutting equipment
- o Correct and safe **manual lifting** operations
- o **Supervision ratio** of foreman to workers - Not > 1:15
- o Two new **long sleeve overalls** with company logo on back to be provided every six months. (or more frequently, if required due to specific task)



Shaded eating areas with:

- Tables & chairs
- Hand washing facilities
- Adequate potable water provided

Portable toilets:

- At a ratio of 1:10
- To be cleaned daily and maintained weekly as minimum requirement (Daily Inspection Record Required).
- Running water to be available at toilets with soap to wash hands.

5.10.31 Fundamental health and safety requirements

Before any work commences, proof of and the following non-negotiable deliverables are required:

- Legal liability training of all Supervisors and Construction Managers
- IRCON or equivalent approved course for all supervisors, foremen and Construction Managers
- Incident investigation training by Construction Manager and or Safety Officer
- Letter of good standing with the Workman's Compensation Commissioner
- Original of the notification of construction work stamped by the Department of Labour
- Public Liability Insurance
- Competency training certificates of people to execute the job
- Method statements for work to be conducted
- A Baseline Risk Assessment
- Risk Assessments for every Job/Task
- A Construction plan detailing each activity per job
- Signed legal appointments as required by legislation
- Contractors' Safety Officer - to be interviewed and approved by KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa appointed Health & Safety agent
- All equipment to be on a current register, backed up by relevant test certificates
- A Medical fitness certificate for each employee with Annexure 3 completed per employee
- Attending of the Contractors Job Specific Induction
- Health and Safety Management Plan
- Health and Safety file table of contents (to follow order of Safety File Checklist Annexure 4)



5.11 Termination and Suspension for Breach of Health and Safety Conditions

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa and the Contractor agree that the provisions of this Clause are of the utmost importance, and any relevant violation of them is considered to be a material and substantial breach of this Contract.

The Contractor must not cause, permit, or tolerate a hazardous, unsafe, unhealthy or environmentally unsound condition or activity over which it has control at the Site. If the Contractor becomes aware of any hazardous, unsafe, unhealthy or environmentally unsound condition, including a violation of any of the Health and Safety requirements, it must immediately notify KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative and take whatever steps are necessary and as is agreed between KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa and the Contractor to remove from site, eliminate, terminate, mitigate, and rectify the condition. If remedial action is not implemented within the agreed term, KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative has the right to stop work forthwith.

If the Contractor fails to take the necessary steps to cure that breach or violation promptly or to otherwise comply with this Clause, KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa may exercise its rights of termination according to the default provisions of this Contract or issue a fine to the Contractor to the value of R10,000.00 per offence.

Should KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative observe an unsafe act or become aware of a planned unsafe act, KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative may direct the Contractor to cease, or not to proceed with, the unsafe work. The Contractor must, at the Contractor's own cost and risk, modify its Method of Work in order to work safely.

5.12 Safety Conflict

Where any conflict exists between the requirements of this Annexure, the Site Rules or Statutory Requirements/Regulations the higher standard must apply unless such conflict is brought to the attention of KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa or the KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa nominated Representative and a direction provided. The Contractor is deemed to have allowed for the higher standard.

The Contractor is legally responsible for ensuring that he conforms to all applicable aspects of the Occupational Health & Safety Act 85/1993 and Regulations (OH&S Act) and other relevant Acts and Regulations. If in dispute with KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa specification and or foreign legislation, the most stringent requirement must apply for all

KwaZulu Natal Province- Agriculture and Rural Development Republic of South Africa controlled project/sites.

6. CORONA VIRUS/ COVID -19 Requirements

6.1. Policies and Procedures

The Contractor will be required to compile and submit for review and approval, before establishing site, the following documents:



- COVID-19 Policy: To be signed by the Chief Executive Officer 16(1).
- COVID-19 Prevention and Control Management Plan which will include Procedures on how the Department of Health and the Disaster Management Requirements shall be complied with.
- Compliance Commitment letter to be signed by all persons in a supervisory role (Foreman/Supervisor/Construction Manager).
- The Contractor shall ensure their induction program to include the requirements of working within the Disaster Management requirements for COVID 19. All staff to be re-inducted prior to starting work.
- The Contractor shall ensure their emergency response plan and first aid procedures to include the requirements of COVID - 19.
- The Contractor must Include COVID 19 in his Baseline Risk Assessment and Issue Based / Task Specific Risk Assessments inclusive of appropriate mitigating factors

The Contractor must also take into consideration the OHS Act 85 Of 1993 and Regulations with specifics to "CONSOLIDATED COVID-19 DIRECTION ON HEALTH AND SAFETY IN THE WORKPLACE GNR.639 of 4 June 2020."

The Contractor will also be responsible for the following, which must be explicitly detailed in there COVID-19 Prevention and Control Management Plan:

- Ensure that all persons on site including Sub-Contractors, Visitors, Client and Professional team comply with the COVID-19 Policies and Procedures.
- The Contractor must not permit more persons onto site than what is permitted by the gazetted Disaster Management Regulations which may change from time to time.

5.11.2 Demographics of Labour

The Contractor must compile a demographic record of all of their staff including casual labour.

The Contractor shall use the current NIOH document that is available.

- Age of staff/labour, a procedure to take cognizance of the worker/staff in high risk categories e.g. 50 + and those with underlying medical risks.
- Health Status a record of the person's health conditions specifically those that have been identified as causing complications when infected with COVID-19 Virus.
- Socio economic status of the workforce, this may have an impact of the transmission of the COVID-19 virus either from site to the home environment or from home to the workplace.

5.11.3 Social Distancing



Where possible social distancing must be implemented and at least a 1.5-meter distance to be maintained (2m shall be preferable). Where this is not possible due to the nature of the task additional PPE to prevent or reduce the risk of transmission shall be issued and the use of the additional measures shall be enforced.

These measures shall include but not limited to:

- Training and education on how to reduce the transmission of COVID 19
- Provision of adequate PPE supply.
- Training in the use (Donning and Doffing) of PPE.
- Monitoring and Managing the use of PPE.
- COVID-19 compliant waste disposal facilities for PPE and cloths used in cleaning and sanitising operations.
- Provision of Personal sealable bags to store the PPE prior to washing.
- Training on the care and washing requirements.
- Sanitising and washing facilities for workers to provide in the immediate vicinity of where the task has been completed.
- Facilities to be provided for the sensitisation of PPE e.g. Safety Harnesses, hard hats, Safety Glasses, Face Shields, etc.

7. Contractor's Acceptance & Acknowledgement of the Site Specific Health & Safety Specification:

I, _____ (print name in full), the undersigned responsible person

(Contractors 16.1/16.2 Appointee) for: _____

_____ (Company Name) declare that I have read, understood

and accept the responsibilities and requirements of this Health & Safety Specification for the project:



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..... I will ensure that this Health & Safety Specification is communicated to the relevant parties so that the requirements hereto can be complied with.

Contractor's Responsible Person
(16.1/ 16.2 Appointee)

Date