



Harry-K Engineering

Building A Sustainable Future!

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HEALTH AND SAFETY MANAGEMENT PLAN FOR HARRY-K ENGINEERING

CONTRACT NO:

CONTRACT DESCRIPTION

CLIENT

HEALTH AND SAFETY PLAN

APPROVAL

CLIENT	NAME	SIGNATURE	DATE
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PRINCIPAL CONTRACTOR	NAME	SIGNATURE	DATE
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HEALTH AND AGENT	NAME	SIGNATURE	DATE
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COMMENTS:

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1. SCOPE

The client's health and safety specification, the occupational Health and Safety Act, Act 85 of 1993 and its Regulations together with section 56 and 59 of the National road traffic Act 93 of 1996 and regulations 284 to 291 set out as minimum standards with regards to Occupational Health and Safety which must be followed during the construction work.

Harry K Engineering has developed this Occupational Health and Safety plan, based on the client's documented health and safety specifications as contemplated in regulation 5(1)(b) of the construction regulations, to ensure a healthy and safe workplace for all employees and its appointed contractors.

Harry K Engineering is and remains accountable for the quality and execution of its health and safety program for its employees.

Harry K Engineering management system will together with the client's health and safety specification be applied to draw up a site specific health and safety plan as well as to legally comply with the Construction Regulations, GNR.84 of 2014. It is Harry K Engineering responsibility and its Contractors to make them conversant and comply with the requirements and conditions contained in the various legislation pertaining to its profession and scope of works at all times. This plan is not exhaustive of all duties imposed by the Occupational Health and Safety Act, Act 85 of 1993 and its Regulations, governing the duties and obligations, of Harry K Engineering and Contractors performing duties in terms of an agreement with the client. These duties are fully described in the Occupational Health and Safety Act, Act 85 of 1993 and its Regulations and it is the duty of Harry K Engineering and Contractor to acquaint them therewith before commencing work. This plan is compiled to ensure that Harry K Engineering and its contractors working under the client are aware of the Occupational Health and Safety requirements when working on the client project, as well as to make them aware of their legal liabilities and responsibilities as per the Occupational Health & Safety Act, Act 85 of 1993, and its Regulations.

2. DEFINITIONS AND ABBREVIATIONS

Assessment – An opinion or a judgment about someone or something that has been thought about very carefully.

At-risk behavior – Conduct that unnecessarily increases the likelihood of an injury or incident.

Audit – A systematic and documented review of the effectiveness of implementation of processes, programs and procedures, based on general process criteria.

Baseline risk assessment: This is the initial assessment of risk in a workplace. It is a broad assessment and includes all activities taking place on site, but does not include risk control measures or safeguards.

CIDB – Construction Industry Development Board.

Client – Any organization or person for whom construction work is performed. For the purpose of this document, the client is the Department of human settlement

Communicate – The process of two way dialogue which is understood by both parties.

Competence – A combination of attributes such as knowledge, training, experience and qualifications to assure successful performance. **Competent Person** – Means a person who has in respect of the work or task to be performed the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No. 67 of 2000), those qualifications and

that training must be regarded as the required qualifications and training; and is familiar with the Act and with the applicable regulations made under the Act.

Consequence – Outcome or impact of an event.

Continual Improvement – A recurring process of enhancing performance to achieve consistent improvements in overall performance. **Contractor** – An employer as defined in section 1 of the OHS Act, who performs construction work and includes Principal Contractors and Sub-Contractors.

Construction Work – any work in connection with: - The construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure; or - 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.

Corrective Action – An action taken to eliminate the cause of a detected non-conformity or other undesirable situation.

Construction Regulations (CR) – Construction Regulations, GNR. 84 of 2014

Design – in relation to any structure, includes drawings, calculations, design details and specifications.

DMR – Driven Machinery Regulations, GNR. 295 of 26 February 1988

Documents – Structured units of recorded information and its supporting medium (paper or electronic). Most records are documents, but not all documents are records. A document becomes a record when it is part of a business transaction, is kept as evidence of that transaction and is managed within a record-keeping system.

EIR – Electrical Installation Regulations, GNR. 242 of 6 March 2009
Emergency – An abnormal occurrence that poses a threat to the safety or health of employees, customers, or local communities, or which can cause damage to assets or the environment.

Employee – An individual who is employed by or works for an Employer and who receives or is entitled to receive any remuneration or who works under the direction or supervision of an employer or any other person.

Employer – Any person who employs or provides work for any person and remunerates that person or expressly or tacitly undertakes to remunerate him, but excludes a labour broker as defined in section 1(1) of the Labour Relations Act, 1956 (Act No. 28 of 1956).

EMR – Electrical Machinery Regulations, GNR. 250 of 25 March 2011

Environment – The surroundings or conditions in which a person, animal or plant lives or operates, including air, water, land, natural resources and habitats.

Epidemic Disease - An epidemic disease is one affecting many persons at the same time, and spreading from person to person in a locality where the disease is not permanently prevalent. The World Health Organization (WHO) further specifies epidemic as occurring at the level of a region or community.

Excavation work – The making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping.

GAR – General Administrative Regulations, GNR. 929 of

25 June 2003 **GMR** – General Machinery Regulations,

GNR. 1521 of 5 August 1988 **GSR** – General Safety

Regulations, GNR. 1031 of 30 May 1986

Harm – A significant and or long lasting adverse effect on people, the environment or the community.

Hazard – A source, situation or act with a potential for harm in terms of human injury or ill health.

Health and Safety File – Means a file, or other record in permanent form, containing the information in writing as required by the Construction Regulations, GNR. 84 of 7 February 2014, Section 7(1)(b).

Health and Safety Plan – Means a project specific documented plan in accordance with the client's health and safety specifications

required by the Construction Regulations, GNR. 84 of 7 February 2014, Section 7(1)(a).

Health and Safety Specification – Means a project specific document prepared by the client pertaining to all health and safety requirements related to construction work, as required by the Construction Regulations, GNR. 84 of 7 February 2014, Section 5(1)(b). **HSE** – Health, Safety and Environment. Commonly used in the format HSE.

Incident – Work-related events (including accidents which give rise to injury, ill health, fatality or emergencies) that have resulted in, or has the potential to result in adverse consequences to people, the environment, property, reputation or a combination of these.

Likelihood – A description of probability or frequency, in relation to the chance that something will occur.

Lost Time Injury (LTI) – When a person is injured during the execution of his/her duties and as a result of the injury is unable to perform his/her regular duties for one full shift or more on the day following the day on which the injury has incurred, whether a scheduled workday or not (weekend).

Management System – Management processes and documentation that collectively provide a systematic framework for ensuring that tasks are performed safely, correctly, consistently and effectively to achieve a specified outcome and to drive continual improvement in performance.

Mandatory – An agent, contractor or sub-contractor for work, but without derogating from his status in his own right as an employer or a user.

MSDS – Material Safety Data Sheet

Near Hit / Near Miss – Any occurrence or situation which had the potential for adverse consequences to people, the environment, property, reputation or a combination of these.

Non-conformance – Any deviation from work standards, practices, procedures, regulations that could either directly or indirectly lead to injury or illness, property damage, damage to the environment or a combination of these.

OHS Act – Occupational Health & Safety Act, 85 of 1993

Pandemic Disease - a pandemic disease is an epidemic disease that has spread over a large area, that is, it is prevalent throughout an entire country, continent, or the whole world.

Policy – Statement by an organization of its intentions and principles in relation to its overall performance which provides a framework for action and for the setting of its objectives and targets.

PPE – Personal Protective Equipment

Preventive Action – An action implemented to eliminate the cause of a potential non-conformity or other undesirable potential situation.

Principal Contractor – An employer appointed by the client to perform construction work and who is in overall control and management of a part of or the whole construction site.

Procedure – A specific documented way to carry out an activity or a process.

Records – Recorded information, in any form that is kept as evidence. Records include monitoring results, evidence of training, audits, inspections and calibration reports.

Risk Assessment – A process of evaluating the risk(s) arising from hazards taking into account the adequacy of any existing controls and deciding whether or not the risk(s) is acceptable.

Risk Management – The ongoing treatment of risks through the application of management policies, processes, procedures and risk control measures.

Risk – A combination of the likelihood of an occurrence of a hazardous event or exposure and the severity of injury or ill health that

can be caused by the event or exposure.

Root Cause – The cause of the incident that, when rectified, will prevent the recurrence of not just incidents with those exact circumstances, but others with similar causes.

SACPCMP – South African Council for Project and Construction Management Professions.

Supplier – A person or company that supplies material or equipment to a contractor on a construction site but does not physically carry out construction work on the construction site.

The Act – The Occupational Health and Safety Act No. 85 of 1993

The Site – The area where work is carried out for SANRAL as defined on the front page of this document.

3. HEALTH AND SAFETY POLICY

TCT civil and construction have developed a health and safety policy that includes a description of the company and it is reviewed annually or when a need arises. CEO or Managing Director will sign and date and such a policy will be communicated to all employees on site.

Our policy indicates TCT civil and construction commitment to ensure the health and safety of its employees, as per Section 7 of the OHS Act.

4. ROLES AND RESPONSIBILITIES

TCT civil and construction has a responsibility to ensure that all its accounting personnel understand their roles and responsibilities, which include the responsibility to provide as far as reasonably practicable a safe and healthy working environment for his employees, as per Section 8 of the OHS Act.

In conjunction with Section 8 of the OHS Act, all employees on the project are responsible for their own health and safety as well as the safety of persons who may be affected by their acts, as per Section 14 of the OHS Act. It is the responsibility of each employee to ensure that he acts in a safe manner before and during work is carried out.

TCT civil and construction will ensure that where required by the OHS Act and Regulations, competent employees are appointed in writing. These appointments will be project/contract specific and specific to the tasks that will be performed. Every appointment will display the duties of the person appointed and training certificates from a registered training provider must be attached to such appointment.

5. CONSTRUCTION WORK PERMIT

The client will in accordance with construction regulations 3 1(a), before carrying out construction work, where the construction work exceeds:

- (a). exceeds 180 days;
- (b). involves more than 1800 person days of construction work;
- (c). the work contract is equal or exceeds R13 Million or construction industry development board grading level 6 CSIR as the client, will at least 30 days prior to construction work, apply to the Department of labour for a construction work in the form of CR Annexure 1.

TCT civil and construction will submit all necessary documentation to the Client's health and safety agent.

6. HSE TRAINING AND COMPETENCE

Harry K Engineering will ensure 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 will be regarded as the required qualifications

and training and employees must have attended courses of the aforementioned nature to be considered competent in the task.

All employees that forms part of the construction work will be trained and competent. Employees formally appointed to perform a certain duty will be in possession of a training certificate (where applicable), received from a registered training provider. All employees will as a minimum have received site specific safety induction training and receive daily safe task instruction training (DSTI) before any work commences and thereafter on a daily basis.

a) Training Needs

There is a system in place which determines the training requirements of each individual, based on the tasks that the employee will perform as well as to ensure the health and safety of fellow employees and the public. Special attention will be given to employees who are new hires, new to the task or have combined responsibilities.

b) Basic Safe Work Training (Induction Training)

Harry K Engineering will ensure that its employees are inducted into his own company Health and Safety System as well as basic safe work training (HSE Induction Training). Harry K Engineering will ensure that its employees, all its contractor's employees and visitors are inducted on the specific site safety procedures.

A Daily Safe Task Instruction (DSTI) will be conducted on site with all employees involved in the project. The DSTI will be carried out each day before work commences and proof thereof will be available on site. Each work crew may conduct their own specific DSTI to discuss the hazards, risks and control measures associated with their task for the day.

Where two or more contractors or work crews work in the same area, they should have a combined DSTI to ensure they know of the additional hazards the other contractor or work crew will introduce to their operations and what precautions to put in place.

Harry K Engineering will have evidence that employees have been trained on the relevant procedures prior to and during the project duration. The evidence will be in a form of attendance register.

c) Formal Training

All qualifications for which there are SAQA registered training courses, must be regarded as the minimum required qualifications and training. To be deemed "competent" an employee must have received training at a registered training provider, the training course must be registered and if there is an assessment, the employee must have been found competent after the assessment. A person cannot be deemed competent after awareness training only.

Harry K Engineering will ensure that its employees, as well as the employees of any contractors that may be used, have received appropriate training for the type of work that will be performed, e.g. First Aid, Flag Man, Mobile Plant Operator, Working at Heights, Risk Assessment training etc.

d) Records

Record of all training shall be kept by the employer and shall be readily available. Records shall make provision for refresher training where applicable. Where an employee is legally appointed with certain duties and responsibilities a copy of the training certificate must be attached to the appointment.

7. HEALTH AND SAFETY INDUCTION TRAINING

Harry K Engineering will before commencement of construction work, develop a health and safety training program that will incorporate its health and safety policies, procedures, rules and regulations deriving the requirement of the occupational health safety Act 85 of 1993 and construction regulations.

The health and safety induction will identify all aspect relating to the site hazards and risks including its mitigating measures, the DO's and DON'T's.

All workers and visitors will be subjected to attend the health and safety induction training before commencing with construction work. A short health and safety induction test will be conducted after the training to assess the understanding of all attendees, workers and visitors who fail the test will be given an opportunity to re-write the test before being allowed to commence with construction work.

After concluding the induction training, each workers will be issued with an induction number which will be the identification number of the worker in the access card and induction sticker on the hard hat.

9. MANAGEMENT AND SUPERVISION

Harry K Engineering will ensure that the project is managed safely, and legal compliance is ensured at all times.

A full-time competent person will be appointed as a Construction Manager to manage all construction work, including health and safety compliance. The construction manager may not be appointed to manage more than one single construction site. An Alternate Construction Manager will be appointed, to carry out the duties in the absence of the Construction Manager.

The construction manager will appoint construction supervisors responsible for construction activities and ensuring occupation health and safety on the construction site.

Harry K Engineering will appoint a full-time construction health and safety officer, who is registered with the SACPCMP, to assist in the control of health and safety aspects on site.

10. RISK MANAGEMENT

Harry K Engineering will follow a formal risk-based approach to ensure hazard control measures are implemented to an acceptable reasonable practical level. Harry K Engineering and his employees will be responsible to ensure that all hazards pertaining to its scope of activity are proactively identified, the risks assessed and appropriately eliminated or minimized and managed on an ongoing basis.

Risk assessments will also identify possible and potential environmental, health and hygiene issues pertaining to each hazard with potential exposures and limits.

a) Risk Assessment

i) Hazard Identification and Risk Assessment (Construction Regulation 9)

Harry K Engineering will, before the commencement of any construction work or work associated with the aforesaid construction work and during such work, conduct a risk assessment by a competent person, appointed in writing and the risk assessment so produced will form part of the OH&S plan and be implemented and maintained as contemplated in Construction Regulation 9(1). Competence is a factor of training, knowledge, experience and/or appropriate qualifications.

The risk assessment will include, as far as is reasonably practicable, at least:

- The task or task step
- the identification hazards to which persons may be exposed to during the task or task step;
- The analysis and evaluation of the risks associated to the hazards identified, inclusive of a residual risk rating methodology. The method to be used is not prescribed;
- a documented plan of safe work procedures, to mitigate, reduce or control those residual risks that have been identified as unacceptably high, by means of the rating system;
- a monitoring plan;
- a review plan, inclusive of dates to be adhered to; and
- Ergonomic related risks are to be analysed, evaluated and addressed as part of the process.

Based on the risk assessments, Harry K Engineering will develop a set of site-specific OH&S rules that will be applied to regulate the OH&S aspects of the construction. The risk assessments, together with the site-specific OH&S rules will be submitted to the Employer before construction on site commences. Department of human settlement will develop a Baseline Risk Assessment as per which will be used by TCT civil and construction to develop task specific risk assessments before work commences. This does not mean that all possible Risk Assessments must be attended to before work commences, but that all relevant Risk Assessments receive the necessary attention as the contract progresses, and this is the responsibility of Harry K Engineering.

All variations to the scope of work shall similarly be subjected to a risk assessment process.

ii) Risk Assessment Monitoring

Harry K Engineering will ensure that a monitoring plan for all risk assessments are in place. Risk assessments will be monitored to ensure effectiveness and employee understanding. The monitoring of risk assessments will be formal, and records thereof will be available for audit purposes.

iii) Review of Risk Assessment

Harry K Engineering shall review the hazard identification, risk assessments and standard safe working procedures:

- prior to any work activity commencement,
- where changes are affected to the design and construction that result in a change to the risk profile,
- when an incident has occurred, or
- at least quarterly.

Harry K Engineering will provide the Employer, sub-contractors and all other concerned parties with copies of any changes, alterations or amendments as contemplated above.

Activities carried out without conducting a risk assessment or found to be non-compliant with the risk assessment, will be stopped until such time a risk assessment is compiled, and work is carried out according to the risk assessment.

Risk assessments will be fully communicated to all relevant personnel and must be considered when establishing training, awareness and competency requirements. Records of risk assessment communications must be kept for inspection purposes.

b) Baseline Risk Assessment

The client will prepare a Baseline Risk Assessment from which the Health and Safety Specifications for this project was prepared. The Baseline Risk Assessment highlights all work for which Harry K Engineering must prepare safe work procedures and or work method statements. It must be noted that the Baseline Risk Assessment is not exhaustive and Harry K Engineering is required to identify risks and come up with control measures, this will be identified by Harry K Engineering when preparing the Issue Based Risk Assessments.

c) Continuous Risk Assessment

Harry K Engineering will continuously assess the risks of the activities that are carried out. Risk assessments must be in writing, site specific and must be reviewed continuously as per to ensure it is current and it address all the relevant hazards and risks associated with the specific activity at the specific site.

The Risk assessment will be discussed with the whole work crew before the activity starts and the work crew will acknowledge in writing having discussed the risk assessment and that they understand it. This acknowledgement will be onsite and will be available to the client for audit purposes.

11. LEGAL COMPLIANCE AND DOCUMENT CONTROL

Harry K Engineering is required to implement systems and procedures to ensure legal compliance through:

- Identification of all relevant HSE legislation, standards and codes applicable to its operations.
- Have available copies of all relevant HSE legislation, standards and codes for reference purposes.
- Update systems and procedures with changed/updated legislation, standards and codes.
- Communicate to all employees any changes that may affect their accountabilities and conformances
- Incorporate any legal requirements into their HSE management system
- Monitor and review their HSE management system for effectiveness.

Harry K Engineering will, as a minimum, comply with:

- The Occupational Health and Safety Act and Regulations (Act 85 of 1993), an up-to-date copy of which shall be available on site at all times.
- The Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993), an up-to-date copy of which shall be available on site at all times.

Wherever in the Construction Regulations or this specification there is reference to other regulations (e.g. Construction Regulation 24: Electrical Installations and Machinery on Construction Sites) Wherever in the Construction Regulations or this specification there is reference to other regulations (e.g. Construction Regulation 24: Electrical Installations and Machinery on Construction Sites) Harry K Engineering will be conversant with and shall comply with these regulations.

All legal appointments of Harry K Engineering regarding the Health and Safety of its employees who are to work on the project are addressed and governed by the OHS Act and applicable Regulations. Legal appointments will be in place and will reflect in the project safety file before work commences.

a) Overall Supervision and Responsibility for OH&S

The client will appoint TCT civil and construction in terms of Construction Regulation 5(1)(k). A Mandatory agreement as per Section 37.2 of the OHS Act, shall be signed between The Department of human settlement and Harry K Engineering It is a requirement that TCT civil and construction, when it appoints other contractors in terms of Construction Regulations 7(1)(c), 7(1)(d), 7(1)(f) and 7(3) includes in his agreement with such Contractors the following:

- OH&S Act (85 of 1993), Section 37(2) agreement: "Agreement with Mandatory".
- OH&S Act (85 of 1993), Section 16(2) appointee(s) as detailed in his/her/their respective appointment forms. (Where applicable).

The signed Mandatory agreements shall be placed in the project file for reference and for audit trail purposes.

b) Specific Supervision Responsibilities for OH&S

Harry K Engineering will appoint designated competent employees and/or other competent persons as required by the OHS Act and Regulations, as well as this specification. Appointments shall be in writing and the responsibilities clearly stated together with the period for which the appointment is made. This information shall be communicated to and agreed with the appointees. Where applicable, the training certificate must be attached to the appointment. Notice of appointments shall be submitted to the Employer. All changes shall also be communicated to the Employer.

Below is a list of possible appointments for the project, which is not an all-inclusive list, but for reference purposes only:

Appointment

Assistant to CEO
Health and Safety Representative

Legal Reference

OHS Act 16(2)
OHS Act 17(1)

Appointment**Legal Reference**
OHS Act 19(3)

Nominated Health and Safety Committee Member

Contractor (Sub-contractor)

CR 7(1)(c)(v)

shall be conversant with and shall comply with these regulations.

All legal appointments of Harry K Engineering regarding the Health and Safety of its employees who are to work on the project are addressed and governed by the OHS Act and applicable Regulations. Legal appointments must be in place and must reflect in the project safety file before work commences.

c) Overall Supervision and Responsibility for OH&S

The client will appoint Harry K Engineering in terms of Construction Regulation 5(1)(k). A Mandatory agreement as per Section 37.2 of the OHS Act, shall be signed between The client and Harry K Engineering

It is a requirement that Harry K Engineering, when it appoints other contractors in terms of Construction Regulations 7(1)(c), 7(1)(d), 7(1)(f) and 7(3) includes in his agreement with such Contractors the following:

- OH&S Act (85 of 1993), Section 37(2) agreement: "Agreement with Mandatory".
- OH&S Act (85 of 1993), Section 16(2) appointee(s) as detailed in his/her/their respective appointment forms. (Where applicable).

The signed Mandatory agreements shall be placed in the project file for reference and for audit trail purposes.

d) Specific Supervision Responsibilities for OH&S

Harry K Engineering as the Principal contractor will appoint designated competent employees and/or other competent persons as required by the OHS Act and Regulations, as well as this specification. Appointments shall be in writing and the responsibilities clearly stated together with the period for which the appointment is made. This information shall be communicated to and agreed with the appointees. Where applicable, the training certificate must be attached to the appointment. Notice of appointments shall be submitted to the Employer. All changes shall also be communicated to the Employer.

Below is a list of possible appointments for the project, which is not an all-inclusive list, but for reference purposes only:

Appointment**Legal Reference**

Assistant to CEO

OHS Act 16(2)

Construction Manager

CR 8(1)

Alternate Construction Manager

CR 8(1)

Health and Safety Representative

OHS Act 17(1)

Nominated Health and Safety Committee Member

OHS Act 19(3)

Appointment

Legal Reference CR 8(2)

Assistant Construction Manager	
Health and Safety Officer	CR 8(5)
Construction Supervisor	CR 8(7)
Assistant Construction Supervisor	CR 8(8)
Risk Assessor	CR 9(1)
Fall Protection Plan Developer	CR 10(1)(a)
Structure Inspector	CR 11(2)(a)
Temporary Works Designer	CR 12(1)
Temporary Works Supervisor	CR 12(2)
Excavation Supervisor	CR 13(1)(a)
Demolition Supervisor	CR 14(1)
Competent Person in the use of Explosives	CR 14(11)
Scaffold Supervisor	CR 16(1)
Suspended Platform Supervisor	CR 17(1)
Rope Access Supervisor	CR 18(1)(a)
Material Hoist Inspector	CR 19(8)(a)
Bulk Mixing Plant Supervisor	CR 20(1)
Explosive actuated fastening device Inspector	CR 21(2)(b)
Explosive actuated fastening device cartridge Controller	CR 21(2)(g)(i)
Construction Vehicle & Mobile Plant Operator Authorised	CR 23(1)(d)(i)
Temporary Electrical Installation Controller	CR 24(c)
Stacking and Storage Supervisor	CR 28(a)
Fire Equipment Inspector	CR 29(h)
Incident investigator	GAR 9(2)
Lifting tackle inspector	DMR 18(10)(e)
Ladder inspector	GSR 13(a)
Certified Explosives Manager	ER 12(1)
First Aider GSR	GSR 3(4)
Lifting machine Operator	DMR 18(11)

In addition to the above, the Employer requires that a Traffic Safety Officer be appointed.

It is a requirement that Harry K Engineering provide the Employer with an organogram of all sub-contractors that he/she has appointed or intends to appoint and keep this list updated and prominently displayed on site.

e) Designation of OH&S Representatives (Section 17 of the OH&S Act)

Where Harry K Engineering employs more than 20 persons (including the employees of sub-contractors) he has to appoint 1 (one) OH&S representative for every 50 employees or part thereof. This is a minimum (legal) requirement. TCT civil and construction may at his own discretion appoint more OH&S representatives according to site specific requirements. General Administrative

Regulation 6 requires that the appointment or election of the OH&S representatives be conducted in consultation with employee representatives or employees (Section 17 of the Act and General Administrative Regulation 6 & 7). OH&S representatives shall be designated in writing and the designation shall include the area of responsibility of the person and term of the designation. OH&S representatives must be experienced, permanently employed by Harry K Engineering or his sub-contractors, trained and able to move freely within their designated area of responsibility.

f) Duties and Functions of the OH&S Representatives (Section 18 of the OH&S Act)

Harry K Engineering will ensure that the designated OH&S representatives perform their functions in respect of the workplace or section of the workplace for which they have been appointed. These functions include to conduct continuous monitoring and monthly inspections of their respective areas of responsibility, focusing on unsafe acts and unsafe conditions and report thereon to Harry K Engineering and OH&S Committee. OH&S representatives shall participate in accident or incident investigations. OH&S representatives will attend all OH&S committee meetings. The complete list of functions can be found in Section 18 of the OHS Act.

g) Appointment of OH&S Committee (Sections 19 and 20 of the OH&S Act)

Harry K Engineering will establish an OH&S committee, which will meet at least once a month, where two or more Health and Safety Representatives have been appointed. OH&S representatives must be appointed as OH&S committee members. The number of members nominated by management may not exceed the number of OH&S representatives on the committee and must be appointed in writing.

12. OCCUPATIONAL HEALTH AND HYGIENE

a) Medical Fitness for Duty

All contractor employees will undergo medical examinations and be certified fit for duty by an Occupational Health Practitioner before they are allowed to work on site.

The medical certificate must be in the form of Annexure 3 of the Construction Regulations and stipulate the possible exposures the employee might be exposed to during the execution of the project.

It is recommended and in the best interest of Harry K Engineering to implement pre-employment, periodic, as well as exit medical surveillance, especially with regards to Section 8 of the Noise Induced Hearing Loss Regulation.

b) First Aid

According to GSR 3(4), where more than 10 employees are employed at a workplace/worksites, Harry K Engineering will ensure that there is at least one trained first aider for every group of 50 employees at the workplace/site. First Aid boxes must be provided where more than 5 employees are employed and must be readily available and accessible for the treatment of injured persons at the workplace.

To ensure immediate treatment of an injured person, it is recommended that all work crews have at least one trained first aider, with a fully stocked first aid box, irrespective of the number of people in the work crew. This is especially important when contractors work at great distances from the nearest emergency facility or town. These persons will be appointed in writing as the first aiders with their certificates attached as proof of competency.

The minimum contents of the first aid box shall be as per the supplied list in the General Safety Regulations.

All treatments done must be recorded on a register and kept with the first aid box. A trained and appointed first aider must be responsible for the first aid box and its content. Used content must be replenished as soon as possible.

In order to ensure prompt response at the emergency facility it is recommended that the WCI 2 forms be partially completed with the Employers' details.

c) Hygiene Facilities

Harry K Engineering and his contractors will ensure compliance to Section 30 of the Construction Regulations with regards to facilities on the construction site as well as where accommodation is provided to employees on remote sites. Harry K Engineering will ensure that the facilities are kept clean at all times, either through a service provider or self-employed persons. Harry K Engineering will provide employees with at least one sanitary facility for each sex and for every 30 workers, changing facilities for each sex and sheltered eating areas.

d) Health related Epidemics and Pandemics

Harry K Engineering shall, as far as reasonably practicable describe how health related epidemics and pandemics will be dealt with. The department of human settlements is aware that this section will not speak to specifics, but generic procedures. Harry K Engineering will ensure that the requirements stipulated in the Hazardous Biological Agents (HBA) Regulation and the code of practice for managing exposure to SARS-COV-2 in the workplace 2022 are addressed, training and information given to all workers, contractor workers, visitors etc. and procedures implemented on site to prevent health risks on site.

Once the nature and scale of the epidemic or pandemic is known, Harry K Engineering will update its health and safety plan

with the relevant information and send the updated plan to the relevant appointed OHS Agent for approval. Once approved, Harry K Engineering will implement the updated health and safety plan and maintain the updated plan on site.

13.

As required by facility regulations, Harry K Engineering will provide the following:

- SANITATION -
- FACILITIES FOR SAFE KEEPING
- CHANGING ROOM AREAS
- DINING/ EATING AREA
- DRINKING WATER

WASTE MANAGEMENT

Harry K Engineering, will comply with all applicable and relevant Waste management legislation, as well as municipal bylaws applicable to waste management.

Harry K Engineering will remove all waste generated at the construction site as soon as possible after generation to ensure good housekeeping at all times. Harry K Engineering will have a waste management plan which must be implemented on the construction site and which will have the objective to ensure that waste is managed according to the Waste Management Hierarchy:

- Reduce what you can. If you cannot reduce then,
- Re-use what you can. If you cannot re-use then,
- Recycle what you can. What you cannot recycle,
- Convert into energy sources. If it cannot be converted to an energy source,
- Dispose of in a landfill – this is only to be done as a last resort and disposed without endangering human health and without using processes or methods which could harm the environment.

14. HAZARDOUS CHEMICAL AGENTS MANAGEMENT

Harry K Engineering will ensure that hazardous agents brought onto site are easily identifiable and stored according to the requirements of the Regulations for hazardous chemical agents 2021 and General Safety Regulations, GNR. 1031 of 1986, Section 4.

Where flammable liquids are being used or stored, this must be done in a manner which would not cause a fire or explosion hazard.

Harry K Engineering shall have Material Safety Data Sheets (MSDS) readily available for flammable, hazardous and toxic chemical substances and materials brought onto site and shall ensure that all its employees are trained in these MSDS's.

Flammable, hazardous or toxic chemical substances may not be stored in empty food or drink containers. Empty flammable, hazardous and toxic containers must be disposed of in a safe manner, which will prevent further use of such a container.

15. CONTRACTORS

a) **Consultations, Communications and Liaison**

OH&S liaison between the Department of human settlement, Harry K Engineering, The Contractors, the designer and other concerned parties will be through the OH&S committee. In addition to the above, communication may be directly to the Employer or his appointed agent, verbally or in writing, as and when the need arises.

Consultation with the workforce on OH&S matters will be through the construction managers and supervisors, OH&S representatives and the OH&S committee. Harry K Engineering will be responsible for the dissemination of all relevant OH&S information to The Contractors e.g. design changes agreed with

the client and the designer, instructions by the client and/or his/her agent, exchange of information between subcontractors, the reporting of hazardous/dangerous conditions/situations etc. Harry K Engineering's most senior manager on site will be required to attend all OH&S meetings.

b) **Operational Procedures**

Each construction activity will be assessed by Harry K Engineering so as to identify operational procedures that will mitigate against the occurrence of an incident during the execution of each activity. This specification requires Harry K Engineering:

- to be conversant with all relevant Regulations;
- to comply with their provisions;
- to include them in his OH&S plan where relevant

c) **Checking, Reporting and Corrective Actions**

i) Monthly Audit by Employer (Construction Regulation 5(1)(o))

The client will conduct monthly health and safety and document verification audits in compliance with Construction Regulation 5(1)(o) in order to ensure that The Principal Contractor has implemented and is maintaining the agreed and approved OH&S plan.

Harry K Engineering will be provided with a copy of the Health and Safety audit report within seven days after the audit. The client or his representative may stop any Harry K Engineering from executing a construction activity which poses a threat to the health and safety of persons which is not in accordance with the client's health and safety specification and client health and safety plan for the specific site.

ii) Other Audits and Inspections by the Employer

The client reserves the right to conduct other ad hoc audits and inspections as deemed necessary. This will include site safety walks.

iii) client's Audits and Inspections

client must conduct his own regular internal audits to verify compliance with his own OH&S management system, as well as with this specification.

Harry K Engineering will furthermore ensure that each contractor's health & safety plan is being implemented and maintained. Harry K Engineering will ensure that periodic health and safety audits and document verification are conducted at intervals mutually agreed upon between Harry K Engineering and any contractor, but at least once every 30 days.

iv) Inspections by OH&S Representatives and other Appointees

OH&S officer and representatives will conduct monthly inspections of their areas of responsibility and report thereon to their foreman or supervisor, as well as the OH&S Committee, whilst other appointees

will conduct inspections and report thereon as specified in their appointments e.g. vehicle, plant and machinery drivers, operators and users must conduct daily inspections before start-up.

v) Recording and Review of Inspection Results

All the results of the abovementioned inspections shall be in writing, reviewed at OH&S committee meetings, endorsed by the chairman of the meeting and placed on the OH&S File.

d) Project Health and Safety Management Plan

As per Section 5(1) (l) and Section 7(1) (a) of the Construction Regulations of 2014, Harry K Engineering shall develop, implement and administer a Health and Safety Management Plan. The plan shall be in writing and shall be negotiated between Harry K Engineering and The client designated OHS Agent and must be approved by the client or the designated OHS Agent prior to the commencement of work on site. The plan shall demonstrate management's commitment to ensure employee health and safety as their primary objective during the contract. The H&S plan shall be site and project specific and must address all aspects of the project H&S specification.

e) Project Health and Safety File

Harry K Engineering shall compile a project specific Health and Safety File that consist of all the relevant project specific documentation. The Health and Safety file may consist of multiple files, which when combined should contain all the required documentation.

It is recommended that the project specific Health and Safety file contain at least the following:

- Scope and summary of the project as well as any scope changes.
- Proof of COID registration (Letter of Good Standing)
- Contractor Health and Safety Policy statement signed by management
- Appointment of Principal Contractor
- Mandatory Agreement – OH&S Act 37.2 (Between Employer and Principal Contractor)
- Client Health and Safety specification
- Latest copy of the OHS Act and Regulations
- Company Organogram depicting Health and Safety Responsibilities, including sub-contractors
- Employee list including copy of IDs and medicals
- Project specific Health and Safety Management Plan agreed with the Employer – (d) above
- Relevant OH&S Legal appointments which includes duties and responsibilities as well as competencies (training certificate)
- Copies of minutes of meetings – OH&S committee and other relevant OH&S meeting minutes
- Site specific Fall Protection Plan (if applicable)
- Risk Assessments
- Contractor Induction material
- Waste management Plan
- Emergency preparedness (first aid, firefighting, emergency plan, etc.)
- Emergency Contact Telephone numbers
- List of hazardous chemical substances used on site
- Material Safety Data Sheets of hazardous chemicals on site
- List of plant & equipment to be used on site
- Inspection Checklists/Registers of plant & equipment and emergency equipment
- List of Sub-contractors including type of work
- Sub-contractor 37.2 Mandatory Agreements
- Sub-contractor appointments which shall include the type of work Harry K Engineering is appointed for.

f) Contracting Philosophy

Any site-specific hazards and safety management expectations will be made known to Harry K Engineering prior to the work commencing on site. This will be done through the OH&S Specification for the project. The client as the Employer may specify requirements that are stricter than Legislative requirements in this OH&S Specification. Legal OHS requirements contained in the OHS Act and Regulations, SANS Codes and the project OH&S Specifications are the minimum requirements Harry K Engineering must apply during this contract with regards to Occupational Health and Safety. Harry K Engineering will implement the minimum OH&S requirements and ensure conformance to these at all times.

g) Workers Compensation Registration

Harry K Engineering will ensure that its employees are covered for any occupational injuries and illnesses in terms of the Occupational Injuries and Diseases Act 130 of 1993, which cover shall remain in place and up to date for the duration of the project.

Harry K Engineering will ensure that its sub-contractor employees are covered for any occupational injuries and illnesses in terms of the Occupational Injuries and Diseases Act 130 of 1993, which cover shall remain in place and up to date for the duration of the project.

h) HSE Non-Compliance

It is a legal duty of the client according to the Construction Regulation 5(1)(q) that a Harry K Engineering is stopped from executing any activity which poses a threat to the health and safety of persons. Depending on the seriousness of the non-compliance only the specific activity may be stopped until the non-compliance is rectified or the whole operation may be stopped.

It is also the duty of every employee to take reasonable care of his own health and safety and of other persons who may be affected by his acts as per OHS Act, Section 14(a). Keeping this in mind, it is required of Harry K Engineering to ensure his employees has the right to remove themselves from any unsafe situation or work activity, without any negative consequence to them until such time as Harry K Engineering has made the unsafe situation or activity as safe as practicable possible.

i) Indemnity by Contractor

Harry K Engineering will indemnify The client against and from all damages, losses and expenses (including legal fees and expenses) resulting from:

- i) the loss of output and delay caused by the slowing down or partial or total stoppage of work caused by:
 - all or any of Harry K Engineering's workforce as a result of a dispute between all or any of the Harry K Engineering's workforce and The Contractor; or
 - all or any of the Harry K Engineering suppliers' difficulty or impossibility to deliver goods or materials needed to perform the Works;
- ii) Any unlawful, riotous or disorderly conduct by or amongst Harry K Engineering personnel."

j) Harry K Engineering Conduct

Guidelines to the most important rules that shall be implemented and maintained by Harry K Engineering Complete compliance to the OH&S Act 85 of 1993 and Regulations,

- Hazard identification and Risk Assessments for all activities,
- Daily communication of DSTI's before work commences, even if it is a repetitive task,
- Safe access and egress to and from work areas,

- Compulsory use of lifelines, Safety Harnesses and Fall Arrestors (Lanyards to be attached at all times), when working in elevated positions,
- Good housekeeping and stacking practices,
- Safe lifting, rigging and slinging practices,
- Complying to Legal standards for lifting machinery & equipment,
- Securing of tools, equipment and material at heights,
- Wearing of appropriate personal protective equipment as identified in the risk assessment.

Supervisors in charge are responsible for ensuring that the employees are aware of the hazards/risks involved in the work they will be doing/are doing and shall ensure the safety rules are obeyed.

No person shall act in a manner that endangers or is likely to endanger, the safety of any other person, or cause harm to any other person.

An employee who observes any dangerous situation, shall as soon as possible inform the person who is responsible for that section of the site.

Any employee who becomes aware of any person disregarding any safety rules, shall remind that person of the rules. If he persists in disregarding the rules, the matter must be reported to his supervisor.

No person shall damage, alter, remove, render ineffective or interfere with anything that has been provided for the protection of the site, or for the health and safety of persons.

No person shall interfere with or use firefighting equipment without authority and training.

No person in a state of intoxication or condition that render him incapable of controlling himself shall enter or be allowed to enter the site.

No alcohol or illegal drugs shall be taken

onto the site. All safety and warning signs

shall be obeyed.

Always be alert of construction vehicles as well as traffic. Never turn your back to oncoming traffic, always have a line of sight.

k) Principal Contractor and Contractor Management

Harry K Engineering will establish, maintain and ensure that all its contractors establish and maintain OH&S standards and systems as necessary and to comply with the Legal requirements as well as the OH&S specification.

Harry K Engineering shall be solely responsible for carrying out work on the project, having the highest regard for the health and safety of his employees and people in the vicinity of his work area.

l) Public Health and Safety

Harry K Engineering will, as far as is reasonably practicable, be responsible for ensuring that members of the community/ non-employees affected by the construction work are made aware of the dangers likely to arise from said construction work as well as the precautionary measures to be observed to avoid or minimise those dangers.

This includes:

- Members of the community/ Non- employees entering the site for whatever reason;
- The surrounding community;
- Passers-by to the site;
- Live-stock;
- Vehicles.

16. INCIDENT MANAGEMENT

Harry K Engineering shall ensure that a culture exists within his company that promotes the recognition, response, reporting and investigation of incidents, including near misses (near hits). Harry K Engineering will implement a procedure for reporting and investigating accidents, incidents and near misses. Harry K Engineering have a clear objective and target to obtain zero injuries for the duration of the project and such an objective will be communicated to all employees.

Appropriate corrective actions will be implemented, and the applicable learning will be shared within Harry K Engineering business to prevent a recurrence of the incident or to prevent the near miss from becoming an incident in future.

(a) Incidents and Accidents

Harry K Engineering and its contractors will coordinate investigation of all accidents/incidents where employees and non- employees gets injured to the extent that it had to be referred for medical treatment by a doctor, hospital or clinic. The results of the investigation shall be entered into an accident/incident register, which must be updated with each accident/incident.

Harry K Engineering will notify the relevant client Project Manager and or Department of human settlement OHS Specialist and the OHS agent of any incident/accident within Harry K Engineering or its Contractors area of responsibility in writing as soon as possible.

Although the accident/incident is reported to the client, Harry K Engineering has a responsibility and is required by law to report any Section 24 accidents and incidents to the Department of Labour. Any road traffic accident must be reported to the relevant authorities.

It is essential that Harry K Engineering demonstrate that corrective and preventative action has been taken to prevent a similar incident in future and that it is communicated to all the Harry K Engineering affected staff. A copy of the investigation, corrective and preventative action taken as well as the attendance register of the employees who attended the discussion of the incident and the action implemented to prevent a similar incident, will be forwarded to the OHS agent and the client Project Manager.

Investigations must be completed for:

- Near Miss Incidents (To prevent it from becoming an incident)
- First Aid case Incidents
- Medical treatment case Incidents
- Fatalities

(b) Incident Reporting

Harry K Engineering Will provide the Employer with copies of all statutory reports required in terms of the Act within 7 days of the incident occurring. In addition, Harry K Engineering shall update monthly the Disabling Injury Frequency Ratio (DIFR) and display this information on a signboard at the site office.

Harry K Engineering is responsible for collecting, recording, calculating and reporting his and his sub-contractors Health & Safety statistics to the OHS agent.

The statistics should contain at least the following for all employees of all contractors working on the project:

- Total Number of workers
- Total Number of hours worked
- Total Number of Near Miss Incidents
- Total Number of First Aid case Incidents
- Total Number of Medical Treatment case Incidents (Excluding Section 24 type incidents)
- Total Number of Section 24 type Incidents
- Preventative actions taken on incidents that have occurred
- Communication to employees and contractors of incidents and preventative actions.

18. SECURITY MANAGEMENT

Harry K Engineering will appoint a credible, registered company with a good track record in security management. The company shall be registered with Private security industry regulatory authority (PSIRA) and in good standing. All its security officers shall be trained in security management grades and be registered with Psira and in good standing.

The appointed security company will ensure protect all asserts, workers, property, plant etc. on site. Harry K Engineering will provide a construction site that will make it possible for the security company to do their work diligently:

- Harry K Engineering will ensure that the site office and were possible the site has proper para meter fence;
- Adequate lighting;

- Water and sanitation;
- Provide access gates and emergency exit gate;
- Relevant construction warning signage
- Electricity;
- Ablution;
- Emergency contact numbers;
- TCT Management contact numbers;
- Table and chairs;
- Guard room;
- Ensure all Harry K Engineering and contractor workers are issued with access card with their names, ID number, company number and worker's photo;
- Clear the path on parameter for patrols.

The appointed security company will ensure that of the following:

- All security officers are registered with PSIRA and conduct criminal background checks;
- Issue officers with security officer uniform;
- Re-chargeable 2 way radio;
- Guard track;
- Scanner metal detectors
- Tonfa baton stick;
- Re-chargeable torch;
- Occurance book (OB);
- Writing pen;
- Locks, keys and chains;
- Patrol vehicle.

The security officer will control access control. No worker will be allowed access without access card. No vehicle will be allowed access to site/ site office without visitors stickers or prior arrangements or appointment with the person they intend to visit.

The security officer will be allowed to conduct searches to vehicles and workers when accessing site and exiting. Security officers will conduct routine patrols on parameter fence, site offices, storage containers, site, plant any other valuables that are on site.

Security officers will report any incidents immediately to the control room and to Harry K Engineering. Security officers will conduct civilian arrest to any person/s found to have violated site rules when required.

A vehicle patrol will conduct unannounced visits and findings will be reported in the OB.

No weapons and unauthorized entry to site will be allowed.

19. HOUSEKEEPING

Good housekeeping is a place for everything and everything in its place. Harry K Engineering will ensure that housekeeping is conducted pre, during and after construction work. Competent persons will be appointed as housekeeping supervisors. Construction supervisors and assistant supervisors will be appointed to manage housekeeping.

Harry K Engineering will ensure that the designated areas for the following disciplines:

(a) proper storage of materials and equipment as follows:

(b) the removal of scrap, waste and debris at appropriate intervals;

(c) ensuring that materials required for use, are not placed on the site so as to obstruct means of access to and egress from workplaces and passageways;

(d) ensuring that materials which are no longer required for use, do not accumulate on and are removed from the site at appropriate intervals;

(e) ensuring that waste and debris are not disposed of from a high place with a chute, unless the chute complies with the requirements set out in regulation 14(6);

(f) ensuring that construction sites in built-up areas adjacent to a public way are suitably and sufficiently fenced off and provided with controlled access points to prevent the entry of unauthorized persons; and

(g) ensuring that a catch platform or net is erected above an entrance or passageway or above a place where persons work or pass under, or fencing off the danger area if work is being performed above such entrance, passageway, or place so as to ensure that all persons are kept safe in the case of danger or possibility of persons being struck by falling objects.

Housekeeping will be communicated to all workers and contractors during induction training, toolbox talk and DSTI's to ensure that the site is kept neat and clean before and after every shift.

A fine system will be implemented to every worker and contractor that contravene housekeeping rules and requirements.

20. NOISE AND DUST CONTROL

21.1 NOISE CONTROL

Harry K Engineering will develop noise induced hearing loss program to help identify sources of noise in the construction site and mitigating factors to manage the noise and hearing loss. It will ensure that all workers including contractors and visitors undergo an induction training which will incorporate noise induced hearing loss and controls measures.

Harry K Engineering will ensure that sufficient information and training is given to all workers, visitors and community members who may be affected. Relevant warning signage will be placed around the works station and in all affected areas, communication will be on going through induction training, toolbox talk, DSTI'S, Noise induced hearing loss program and posters.

Harry K Engineering establish areas where noise exceeds 85dBA and such areas will be designated as noise areas, it will also not allow its workers, contractors and visitors to work in areas where noise exposure is above 85 dBA noise-rating limit without hearing protection.

Harry K Engineering will ensure that all workers undergo medical screening which will include baseline audiogram which will be recorded for records.

Noise zones will be identified where the noise is or above the noise rating limit and noise control

measures will be put in place. Harry K Engineering will implement the 3 main types of noise controls,

namely

- Engineering controls
- Administrative controls
- And personal controls.

All powered tools, plant, generators, pumps and other sources of noise will be identified and engineering controls such as in- plant noise control tools and plant, plant lay out, maintenance, modify, noise barriers, etc.

Administrative controls – aim to reduce exposure time or distance of workers to the noise sources. E.g rotation of workers, schedule of noisy activities, relocating noisy activities, etc.

Personal control – measures aim to protect workers from the noise effects by providing them with hearing protective equipment.

20. DUST CONTROL

Harry K Engineering will ensure that dust suppression is managed and control in all activities. All activities causing dust will be identified and controlled. Activities such as:

- Stockpiling
- Transfer points
- Tipping areas
- Loading areas
- Demolition areas
- Explosive areas
- Excavations
- Movements of plants

DUST POLLUTION PREVENTATIVE MEASURES

Water from water trucks, hose pipes (GREY WATER ONLY) or from the site, will be used if necessary to dampen dusty areas. Non-potable water may be used for dust suppression on stockpiles. Dust suppressant with water remain the primary preventative measure.

- Water suppressant truck will be managed strategically to minimise dust. The water truck will start watering the ground before construction work commences, after commencement, before just lunch time, before commencement with work after lunch, after commencement after lunch and before knock off time.
- Sand stockpiles are to be covered or located in sheltered areas with the usable/cut face orientated away from the direction of that season's prevailing wind.
- Harry K Engineering will minimise the movement of plant.
- Public complaints will be recorded and action taken to prevent complaints in the future. Documentation pertaining to the complaints will be retained on file.
- If deemed necessary to prevent excessive dust, sand stockpiles will be covered with suitable material.
- Workers will be notified prior to dust suppressant routine sessions so that dust masks and other preventative controls could be used.

21. FIRE AND EMERGENCY PROCEDURE

A fire and emergency procedure will address the action plan to mitigate fire and emergencies during construction work. Harry K Engineering will appoint competent personnel to manage and coordinate fire and emergencies on site.

- Fire fighters will be appointed in writing to manage and control fire risks and extinguish fire during emergencies.
- An emergency coordinator will be appointed in writing to identify all possible fire hazards and take the necessary action to reduce the risks as far as possible.
- Fire and Emergency evacuation wardens will be appointed to assist workers during evacuations.
- First aiders will be appointed to assist in the event of emergency.
- Management in general will assist to manage the emergency.

TRAINING AND COMMUNICATION

Appointed fire fighters will be trained as fire fighters, after having attended the minimum fire-fighting level 1 course; Appointed first aiders will be trained as first aiders, after having attended the minimum first aid level 1 and 2 course.

Emergency coordinators will be appointed as emergency coordinators, after having attended the minimum emergency coordinator's course.

Workers in general will attend communication on toolbox talks, risk assessment, fire emergency plan etc.

WHAT TO DO DURING A FIRE EMERGENCY

- An emergency coordinator/ safety officer/ supervisor/ SHE representative will raise the alarm to affected areas;
- Workers will evacuate to the nearest assembly point;
- Fire fighter/s will tackle the fire using fire extinguishers.
- Where appropriate check toilets, offices etc. for other workers and close windows and doors on the way out.

- Assist workers to leave the building by the nearest exit.
- Workers should not stop or return to collect personal belongings.
- Ensure visitors are escorted from the building to the assembly point.
- Workers shall remain at the assembly place until further notice by the site manager, supervisor or safety officer.
- The emergency coordinator, supervisor, safety officer, safety rep and fire fighters will ensure that the fire is completely extinguished before allowing workers to return to work;
- An investigation of the cause of the fire shall be conducted by the supervisor, safety officer, safety rep and fire fighters;
- If the fire is too big to contain, external assistance will be called;
- If there are no further outstanding matters, a roll call shall be conducted by the emergency coordinator and workers will return only when authorized to do so.

EMERGENCY NUMBERS

Emergency numbers will be posted in notice boards, offices, guard rooms, work stations and eating areas for all workers to have access to the emergency numbers.

Emergency numbers will include:

- Local South African police service;
- Local Fire and emergency department
- Local hospitals
- Local clinics
- Local ambulance
- Water and sanitation department
- Security response
- Site management

A copy of a fire and emergency plan will be developed and kept in a safety file.

22. EXCAVATIONS

All excavation will be properly planned as per the revised and approved drawings. Site-specific conditions and hazards will be considered, including community members, vehicle traffic, overhead and ground services/ utilities, proximity to nearby structures, houses, soil properties, presence of surface and / or ground water and weather conditions.

Excavation work may only be carried out under the supervision of a competent excavation Supervisor who has been appointed in writing as per the construction regulations 13.1 requirements.

Before commencing with excavation works, Harry K Engineering will ensure that:

- I. A detailed Risk Assessment has been conducted for the work to be performed;
- II. A Method statement/ Safe Work Procedure is in place; and
- III. No buried services are present in the area where the excavation works are to be carried out. As a minimum, the Risk Assessment must consider hazards / risks associated with:
 - A person being trapped or buried as a result of an excavation collapsing;
 - A person being struck by an object falling into an excavation;
 - A person falling into an excavation;
 - A person being exposed to a hazardous atmosphere within an excavation (i.e. an oxygen deficiency, explosive or flammable gases, and / or harmful concentrations of a contaminant); and
 - Contact with underground services.

On a (drawing of the work area, Harry K Engineering together with the client will accurately indicate the position and dimensions of each intended excavation in order for it to be determined whether or not buried services would (or may) be encountered, such as electrical cabling, communications cabling, gas, fuel, potable water, fire water, effluent, sewage, or stormwater pipelines. In addition, of existing drawings, a field survey may be carried out to verify the presence or absence of buried services.

All excavations will be inspected by an appointed competent person and findings of the Inspections will be recorded in the excavation inspection register. any deviation/s must be corrected as soon as possible and workers must be removed from the excavation while corrections are conducted.

All excavations will be fully barricaded as follows:

- Water-filled Jersey barriers will be placed at-least more than 1 meter away from the excavation to protect members of the community, vehicles, livestock's; etc. from falling in the excavations;
- Barrier netting will be placed over the jersey barriers and will be tied with wire on top and at the bottom;
- Warning signage will be placed around the excavations over the barrier net to make members of the community, vehicle drivers, etc. of the excavation dangers;

Excavations will be sloped to avoid collapse. Where necessary excavations will be shored or braced to avoid collapse. Access and exit routes will be created for safe and easy access and exits of workers. Ladders will be used for access and exit from the

excavation.

23. Lifting equipment and machinery

Design, Manufacturing and Safety Features

Before a crane, hoist or any other lifting machinery and tackles is operated on site, it will be inspected by an OHS officer/ OHS representative and accepted (authorised) to operate on site and will ensure compliance to driven machinery regulations of the Occupational health and safety Act 85, 1993.

The acceptance process will be based on an inspection and risk assessment and will take the crane's/ hoist's safety features and cabin ergonomics (if applicable) into account.

The Safe Working Load (SWL) must be clearly indicated on each crane, hoist, and, item of lifting equipment, or any other lifting machinery.

Pre work inspections of all lifting machinery and tackles will be conducted the appointed competent person. Any defects or deviations found, the lifting machinery will be immediately stopped and faults must be mechanically fixed and tested, lifting tackles must be scrapped and immediately removed from site.

23.1 Lifting plan and procedures

For each critical lift that must be carried out on site, Harry K Engineering will prepare a documented and detailed lift plan and risk assessment will be prepared to address all associated hazards.

.The following critical lifts will each have a documented lift

plan-Critical lifts include (as per the scope of work):

- Lifts where the operational arcs of two or more cranes can overlap
- Lifts over operating facilities where this may endanger personnel
- Lifts over or adjacent to power lines
- Any lift carried out in close proximity to houses, structure/ equipment or a vessel containing a flammable or toxic substance
- Lifts where the center of gravity of the load could change
- Any lift where the total weight on the hook exceeds 20 tones
- Lifts to and from water
- Lifts requiring specialized equipment or involving complicated lifting / rigging configurations

- Lifts requiring non-standard rigging / slinging techniques
- Lifts involving the simultaneous use of more than one hoist on the same crane; and
- Any other lift deemed to be critical by a nominated project management representative or assessed as critical during a risk assessment.

A Competent person in rigging/ a lifting tackle inspector will assist with tying of ropes, slings, chains etc The lift plan for a critical lift will include:

- General Information – crane manufacturer, crane model, items to be lifted, and reason for lift
- Lift Data – load weight, lifting block and hook weight, hoist rope weight, rigging weight, total weight, height of lift, radius of lift, surface area of load, and center of gravity of load;
- Rigging Data – sling material (chain, wire rope, or synthetic), sling diameter, sling length, sling configuration, sling capacity, hook type, shackle size and capacity

Lifts that are not subject to detailed lift plans (i.e. lifts that are not considered critical) will nevertheless be subject to a risk assessment and be properly planned and executed.

24. ERGONOMICS

Ergonomics as defined as a scientific discipline concerned with the understanding of interactions among workers and the other elements of a system, and a profession. Harry K Engineering will ensure that the requirements of the ergonomics regulations 2018 are compliance.

Harry K Engineering will develop an ergonomics program which will be communicated to workers and management to assist managing the balance between physical and psychological work demands with workers capacity.

It is Harry K Engineering responsibility to ensure that any worker who may be exposed to ergonomic risks is made aware of the risks associated with the work.

Harry K Engineering will communicate all ergonomics related risks to workers through induction, tool box talk, DSTI's etc.

A competent person will be appointed to develop an ergonomics risk assessment which will identify, analyse, control, monitor and review all identified risks.

The ergonomics risk assessment will be communicated to all workers.

The following ergonomics principles will be critical to the development and management of ergonomics risks:

- Biomechanics
- Physiology

- Anthropometry
- Industrial engineering
- Safety

All workers will undergo entry and medical screenings.

34. LADDERS

A competent person will be appointed in writing in accordance with General safety regulations 13a . All ladders used on site will be of sound construction and adequate strength.

Only non-conductive ladders made of wood or fibreglass may be used for electrical work or work being performed in proximity to energised electrical equipment or lines.

The use of makeshift ladders is forbidden.

All ladders will be numbered, listed in a register, and inspected by a competent person on a monthly basis (the results of each inspection must be recorded in the register).

Before using a ladder, the user must inspect it for damage.

Ladders with missing, broken, cracked or loose rungs, split stiles, missing or broken spreaders (stepladders) or any other form of damage or defect may not be used.

A damaged ladder will be removed from service and site (and tagged, "Out of Service") without delay and must then either be repaired (if possible) or destroyed to prevent further use.

35. ELECTRICAL INSTALLATION

A method statement will be in place for all electrical work to be carried out on site (i.e. installation, commissioning, repair, maintenance, and decommissioning of electrical installations and equipment).

All electrical work will be carried out by competent personnel in accordance with the statutory requirements, codes, design criteria, safety standards and safe work procedures applicable to the project.

Electricians who will be performing electrical work on site will be certified against the requirements of job and equipment- specific electrical competency standards for the project, which will address job and equipment-specific safe work procedures. Re-certification must take place every two years.

Each employee potentially exposed to electrical hazards will receive electrical hazard training at the commencement of his employment on site and thereafter on an annual basis. The training will address the equipment and conditions specific to the area where the individual will be working. The training material will be documented, and training records will be kept in the file

Upon completion of electrical installation, a registered electrician will issue a certificate of compliance.

36. PORTABLE ELECTRICAL TOOLS

A competent person will be appointed in accordance with electrical machinery regulations 4. The competent person will preferably have electrical training and experience.

All electrical powered tools such as:

- Electrical Grinder
- Electrical drill
- Electrical cord
- Electrical lights
- Etc.

will be properly number, recorded and inspected daily by a competent person. Any defects or faults will be fixed only by a competent person. Only authorised persons will be allowed to use electric powered tools.

37. HAND TOOLS

A competent person will be appointed as a hand tool inspector. Employees required to use hand tools will receive on-the job training relevant to the tool, inspection and maintenance of the tool. Where necessary, additional applicable personal protective equipment must be worn when using hand tools.

Correct hand tools for the job must be used, e.g. screwdrivers must not be used as chisels, pliers must not be used as hammers.

All wedges and drifts that may spring, fly or fall to lower levels upon impact must be fitted with an attachment which attaches a safety "lanyard" to a solid structure to restrain the impact tool from becoming a projectile.

All hand tools used in elevated areas, that may be dropped or fall to lower levels will be fitted with safety lanyards and attached to solid structures.

Hand tools will be inspected by a competent person on daily basis before issuing to workers. No unauthorised worker will be allowed to use a hand tool.

29. HEALTH AND SAFETY FILE ARRANGEMENT

Harry K Engineering will ensure that suitable health and safety file is developed and maintained before commencement of construction work. Such file will be amended where and when necessary and maintained as required.

The safety file will be kept on site in terms of construction regulations 7.1(b) and will be made available on request to an inspector, the client, client's agent or a contractor.

The health and safety file will be kept safe in a lockable site office. Unauthorized persons will not be allowed to access the file. A consolidated health and safety file will be handed over to the client upon completion of works.

30. FALL PROTECTION PLAN AND FALL RESCUE PLAN

Harry K Engineering will appoint a competent in writing as a fall protection plan developer who will be responsible for the preparation of a fall protection plan.

It is Harry K Engineering have a responsibility to implement, amend where and when necessary and maintained as required.

Harry K Engineering will develop a fall protection risk assessment to address all site specific fall risks identified in the construction site.

A program of training for workers will be developed to manage and mitigate fall risks and will be communicated pre and during construction work.

All fall protection equipment will be tested and inspected before use. No worker shall be allowed to work in fall risk position unless such worker is issued with fall prevention and fall arrest equipment are approved as suitable and of sufficient strength for the purpose for which they are being used.

Harry K Engineering will before commencing with construction work, ensure that medical assessment and screening of workers. Medical certificate of fitness will be issued and it will be assessed to decide on workers who will be found not to be fit to work at height. Such workers will be barred from working at heights.

Harry K Engineering will ensure that competent persons to conducted fall rescue and emergency response will be trained in:

- First aid
- Fall rescue
- Emergency response and rescue

A fall rescue plan will be developed, implemented and amended where and when necessary and maintained as required.

All work at heights activities, work in excavation will be rated as high risks and relevant control and mitigating measures will be implemented to eliminate fall risks.

31. SHE REPRESENTATIVE AND COMMITTEES

Harry K Engineering will as stated in section 17 of the OHS Act ensure that SHE representatives and SHE committees members are nominated and selected accordingly.

Workers shall nominate and elect workers who are employed in full time capacity at a specific workplace and who are acquaintance with conditions and activities at that workplace, shall be eligible for designation for SHE representative appointment in terms of section 17. Relevant SHE trainings will be identified by Harry K Engineering, trainings such as:

- SHE Representative
- First aid
- Basic fire fighting
- Hazard identification risk assessment and
- Fall protection plan

The above mentioned course shall be deemed sufficient for a SHE representative training. A reputable training provider which will be registered and in good standing with relevant SETAs for such training courses.

SHE representative functions:

- Review effectiveness of health and safety measures
- Identify potential hazards and major incidents
- Examine causes of incidents
- Investigate complaints
- Advise the committee and the employer

Representatives *shall* be entitled to:

- Visit incidents sites and attend inspections
- Attend any investigation or formal inquiry
- Inspect any document related to health and safety matters
- Accompany an inspector
- Be accompanied by technical advisor if approved by the employer
- Participate in internal audit

SHE committee/s

Harry K Engineering will decide on the number of health and safety committee members; the number of employer nominees (managers) may not exceed the number of SHE representatives.

The employer must consult with the committee with a view to initiating, developing, promoting, maintaining and reviewing measures to ensure the health and safety of his employees at work.

Harry K Engineering will appoint committee members in writing in accordance with section 19 of the OHS Act 85 of 1993.

The SHE representative/s will automatically be appointed as the SHE committee members, SHE committees will consist of the following:

- SHE representatives
- Managers
- Construction supervisors
- Contractors
- and co-opt members such as Health and safety officer/s, manager and any other health and safety professional. A chairperson and secretary will be nominated, elected by members and appointed in writing.

FUNCTIONS OF HEALTH AND SAFETY COMMITTEES

All matters referred to the committee from either the employees or the health and safety representatives must be dealt with in a sufficient and formal manner.

Harry K Engineering will provide a suitable meeting place for committee meetings. The Chairperson and secretary will be tasked to notify members of the date, time and venue of the committee meeting in writing.

Committee's duties:

They will make and keep records of recommendations to Harry K Engineering and inspectors;

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- Where these recommendations do not lead to solving the matter, the committee may make recommendations to an inspector.
- Shall discuss, report and keep records of incidents in which someone is killed, injured, or becomes ill
- Shall discuss incidents, injuries, illness, death and may report on an incident in writing to inspector
- Shall perform functions as prescribed in section 20
- Shall keep records of recommendations (3 years).

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