

	OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION	
	PROJECT LOCATION	REPAIRS FOR MECHANICAL AND ELECTRICAL EQUIPMENT FOR THE WASTE WATER TREATMENT WORKS
	PROJECT DESCRIPTION	REPAIR AND MAINTENANCE OF MECHANICAL AND ELECTRICAL EQUIPMENTS
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General Notification

This document forms an integral part of the tender document and, in particular, shall constitute the Client's (City of Tshwane.) Occupational Health & Safety Specification, as required by the Construction Regulations, 2014, as promulgated under the Occupational Health and Safety Act (Act no. 85 of 1993).

This 'Health and Safety Specifications' document is governed by the "Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), hereinafter referred to as 'The Act', in line with the Construction Regulations 2014. Notwithstanding this, cognizance should be taken of the fact that no single Act or its set of Regulations can be read in isolation. Furthermore, although the definition of Health and Safety Specifications stipulates 'a documented specification of all health and safety requirements pertaining to associated works on a construction site, so as to ensure the health and safety of persons', it is required that the entire scope of the OHS legislation, including the Basic Conditions of Employment Act be considered as part of the legal compliance system. With reference to this specification document this requirement is limited to all health and safety issues pertaining to the site of the project as referred to here-in. Despite the foregoing it is reiterated that environmental management must receive due attention.

Due to the wide scope and definition of construction work, every construction activity and site will be different, and circumstances and conditions may change even on a daily basis. Therefore, due caution is to be taken by the Principal Contractor when drafting the Health and Safety Plan based on these Health and Safety Specifications. Prior to drafting the Health and Safety Plan, and in consideration of the information contained here-in, the contractor shall set up a Risk Assessment Program to identify and determine the scope and details

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of any risk associated with any hazard at the construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard. This Risk Assessment and the steps identified will be the basis or point of departure for the Health and Safety Plan. The Health and Safety Plan shall include documented 'Methods of Statement' (see definitions under Construction Regulations) detailing the key activities to be performed in order to reduce as far as practicable, the hazards identified in the Risk Assessment.

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1. Definition of Terms

- I. Act – unless stated otherwise in the document, shall mean the Occupational Health and Safety Act of 1993 (Act 85 of 1993)

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- II. Client-Means any person for whom construction work is performed and or undertaken (City of Tshwane for the purposes of this project)
- III. Construction site means a workplace where a construction work is being performed
- IV. Construction supervisor means a competent person responsible for supervising construction activities on a construction site.
- V. Competent person means a person who –
 - a) 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 provision of the National Qualification Framework Act 2000 (Act 67 of 2000), those qualifications and that training must be regarded as the required qualification and training and
 - b) Is familiar with the Act.
- VI. Principal Contractor-Means an employer, as defined by Section 1 of the OHSACT who performs construction work and is appointed by the client to be in overall control and management of the construction site and works
- VII. Agent-Means a competent person who acts as a representative for a client in this case MIH Projects.
- VIII. Occupational Health and Safety Specification- Means a documented specification of all Health and Safety requirements pertaining to the associated works on a construction site so as to ensure the health and safety of persons working, visiting, passing, staying and working close to the construction site and or other applicable areas such as the site camp
- IX. Risk-means the probability that injury or damage may occur
- X. Hazard-means a source of or exposure to danger

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2. Introduction

In terms of the Construction Regulation 5 (1) of the OHS ACT, the client must base on the baseline risk assessment, compile an Occupational Health and Safety Specification for an intended project. This specification has an objective to ensure that the principal contractor entering into a contract with the client achieves and maintain an acceptable level of Occupational Health and Safety performance and compliance.

This document forms an integral part of the contract between the client and the principal contractor.

The Principal Contractor and its Contractors shall furthermore implement any reasonable practicable means to ensure compliance to this Occupational Health and Safety Specification and any other applicable legislation on their organization and/or activities performed by or for them

Compliance with this document does not absolve the principal contractor from complying with any other minimum legal requirement and the principal contractor remains responsible for the health and safety of his employees, those of his mandatories as well as any person coming on site or on adjacent properties as far as it relates to the construction activities

3. The Client `s commitment to Occupational Health and Safety Management

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City of Tshwane as the client shall ensure that its duties as outlined in CR 2014, 5(1) are carried out. The duties of the client amongst others includes:

- Prepare a baseline risk assessment for an intended construction work or project;
- Prepare a suitable, sufficiently documented and coherent site specific health and safety specification for the intended construction work based on the baseline risk assessment;
- Ensure that the principal contractor to be appointed has the necessary competencies and resources to carry out the construction work safely;
- Appoint every principal contractor in writing for the project or part thereof on the construction site;
- Ensure that periodic audits and documents verification are conducted at intervals mutually agreed upon between the principal contractor, but at least once every thirty days;

Duties of the Principal Contractor are listed in CR 2014, 7 (1) others shall include:

- Ensuring that decisions and practices affecting occupational health and safety performance are consistent with the issued specification;
- Ensuring adequate resources are made available for the effective implementation of occupational health and safety control and mitigation measures;
- Participating in hazard identification and risk assessments and design safety reviews;

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- Communicating occupational health and safety management processes, strategies and control measures with all levels of employees, contractor and/or visitors;
- Ensuring visible leadership at all sites;
- Promoting and enforcing the use of correct types of Personal Protective Equipment (PPE);
- Reporting and investigation of incidents and accidents and ensuring actions are identified and implemented to prevent similar types of incidents reoccurring;
- Participating in Client audits and meetings and ensuring required actions are implemented within reasonable time frames on the site/project;
- Recognizing and commending safe work practices and coaching employees who require guidance;
- Applying and enforcing consequence management from deviations and transgressions of/from compliance to this OHS Specification noted and/or observed, where applicable;
- Carrying out safety observations, implement corrective and preventative actions and giving immediate feedback;
- Encouraging employee participation in the formulation of work instructions and safety rules.

4. Scope

This project specific Occupational Health and Safety Specification will cover and address reasonable and foreseeable, risks, exposures and aspects of Occupational Health and Safety as affected by the activities of Repairing and maintenance of the centrifugal blowers

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The specification will provide the requirements that the principal contractor and other contractors will have to comply with in order to reduce the risk associated with the above mentioned contract work and that may lead to incidents causing injury and/or ill health to a level as low as reasonable practicable and possible.

5. Omissions from OHS Specification

Where any omission from the OHS Specification is identified, applicable legal requirements will constitute the minimum standard for compliance to the relevant omission. The responsibility will be on the Principal Contractor to provide assurance to the client (City of Tshwane) on compliance to the applicable legal requirements related to the activity / task / process.

6. Change or Review of Specifications

Whenever the client (City of Tshwane) identifies the need to change or review the OHS Specification, approved changes and revisions will be communicated to the Principal Contractor. A cost analysis on the implementation of the proposed changes / revisions will be calculated through a collaborative processes between the Client and the Principal Contractor – where the approved changes and/or revisions has no cost implication for the Principal Contractor the Principal Contractor will be required to accept the approved changes / revisions and ensure implementation within the OHS Plan .

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7. Safety Files

7.1. Preparation and Submission of safety file

The Principal Contractor shall prepare a safety file containing the processes / procedures and templates to be applied during the project period for the scope of work. The Principal Contractor will be evaluated during the contract period against the submitted safety file.

At a minimum the safety file shall contain the following documentation and in accordance with the specification:

1. Notification of construction work to the relevant Department of Labour (stamped on each page / no faxed copies);
2. Scope of work to be performed;
3. Public Liability
4. Personnel list (Principal Contractor employees);
5. OH&S Policy and other procedures;
6. Updated copy of the Occupational Health and Safety Act (Act no. 85 of 1993) and its Regulations.
7. Updated copy of the Compensation for Occupational Injuries and Diseases Act (Act no. 130 of 1993) and its Regulations;
8. Proof of valid registration and good standing with the Compensation Commissioner or another licensed Insurer;
9. OHS Plan approved by the Client.
10. Agreement with Mandatory in terms of Section 37(1) & 2 of the OHS Act.
11. Approved risk assessments, review and monitoring plans and safe work procedures (method statements);

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12. A list of contractors (sub-contractors) including copies of the agreements between the parties and the type of work being done by each contractor;
13. Designs and/or drawings;
14. All written designations and appointments for project scope of work (CV and competency copies);
15. Management structure (inclusive of OH&S responsibility & meeting structure);
16. Induction training and site OHS rules;
17. Occupational health and safety training matrix / plan;
18. Arrangements with contractors and/or mandatories;
19. The following registers (as applicable to contract scope of work):
 - Accident and/or incident notifications, investigation & control register;
 - Occupational health and safety representatives inspection register;
 - Construction vehicles and mobile plan inspections;
 - Daily inspections templates of vehicles, plant and other equipment by the operator, driver and/or user;
 - Daily inspections templates of excavations by competent person;
 - Template for entry into confined space;
 - Toolbox talks pro-forma;
 - Designer's inspections and structures record template;

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- Inspection and maintenance template of explosive powered tools;
- Inspection template of electrical installations (including inspection of portable electrical tools, electrical equipment and other electrical appliances);
- Fall protection inspections template;
- First-aid box content template;
- Record of first-aid treatment template;
- Fire equipment inspection and maintenance template;
- Record of hazardous chemical substances template kept and used on site;
- Ladder inspection template;
- Machine safety inspections template (including machine guards, lock-outs etcetera);
- Inspection templates for lifting machines and –tackle (including daily inspections by drivers/operators);
- Inspection templates of scaffolding;
- Inspection templates of stacking and storage;
- Inspections templates of structures;
- Inspections templates of vessels under pressure;
- Inspection templates of welding equipment; and
- Templates of issuing of Personal Protective Equipment;
- Monthly reporting and recording of statistics templates;

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- Keeping of any other record in terms of applicable legislation falling within the scope of OHS Legislation applicable to the project and the Principal Contractor / Contractor's activities and organization.
- Emergency preparedness and response programmes;

7.2. Evaluation and approval of Safety plan

The client (City of Tshwane) will conduct an initial inspection and evaluation of the Principal Contractor's OHS file and plan for approval purposes before commence work. The Principal Contractor is required to submit the safety file which at least must contain the following:

- Safety plan;
- Risk assessment(HIRA), risk review and training plans;
- Legal or appointments of responsible persons and proof of competence;
- Fall protection plan;
- Method statements

The Client will evaluate the file and give feedback to the Project manager and the Principal contractor. It is important to note that a safety plan cannot be approved in isolation, if the plan has not been approved, the Principal contractor shall ensure that the outstanding documents are submitted for re-evaluation within 3 working days.

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NOTE: The construction work cannot commence until the safety plan is approved. The proof of approval from the Client must be kept in the OHS file.

7.3.Principal Contractor engagement phase

The Principal Contractor shall commence with the construction work after approval of the safety plan. The following processes will be applied to the Principal Contractors on a monthly basis for the duration of the contractual period:

- Monthly Compliance Assessments;
- Site Inspections;
- Progress meetings;
- OHS meetings

An initial site establishment inspection will be conducted by the Client after approval of the safety file / plan.

7.4.Project close-out and submission of consolidated Health & Safety File.

On completion of a construction work/ project the Principal Contractor shall submit all documentation required for the consolidated safety file to City of Tshwane as part of the project hand over documentation.

At a minimum, the safety file will contain the following records:

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1. Approval letter by City of Tshwane on contents of Health and Safety file including plan;
2. A construction work permit issued by the Department of Labour as contemplated in Construction Regulation 3 of the Construction Regulations 2014 (when applicable).
3. Scope of work performed;
4. OHS Policy and other procedures;
5. Proof of registration and good standing with the Compensation Commissioner or another licensed Insurer;
6. OHS plan approved by the Client including the underpinning risk assessment(s) and method statements;
7. A list of contractors (sub-contractors) including copies of the agreements between the parties and the type of work done by each contractor;
8. Notifications of new projects /extension of scope received;
9. Designs and/or drawings; (where required)
10. Occupational health and safety committee meeting agenda and minutes;
11. Copies of written designations and appointments (CV and competency copies);
12. Management structure (inclusive of OHS responsibility & meeting structure);
13. Induction training conducted and site OHS rules;
14. Occupational health and safety training provided;
15. Arrangements with contractors and/or mandatories;

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16. Description of security measures;

17. All applicable registers:

8. OHS Specification Requirements

8.1.General Requirements of Health and Safety Plan

Construction Regulation 7 (1) stipulates that the principal contractor must provide and demonstrate to the client a suitable sufficiently documented and coherent site specific health and Safety Plan, based on the client's documented Health and Safety Specification contemplated in Regulation 5(1) (b), which plan must be applied from the date of commencement of and for the duration of the construction and which must be reviewed and updated by the principal contractor as work progresses.

It is expected from the Contractor to include in his safety plan method statements on how to accomplish the requirements relating to the Construction Regulations, 2014 and related incorporated standards and regulations.

Principal Contractors should describe how their safety management systems will work and what control procedures they plan on using to ensure safety on the construction site

The following generic aspects should be covered in the Safety plan:

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- What administrative procedures the Principal Contractor envisages to use in the implementation and maintenance of the safety plan with reference to the construction site
- How continuous assessment of the safety plan will be assessed and implemented with respect to construction site
- What control systems the Principal Contractor envisages to implement on site to support his safety program
- How the Principal Contractor will ensure that he adheres to the construction regulations in respect of competent persons for appointments
- What external resources the Principal Contractor envisages on using to ensure successful implementation and sustainability of the safety plan
- What training to employees the Principal Contractor envisages and how he would go about to execute it
- The Principal Contractor should indicate which competent persons he plans on employing based on the scope of work.

8.2. Outline of Health and Safety Plan

The Principal Contractor's Health and Safety Plan prepared in accordance with this specification shall consist of at least the following sections and sub-sections:

1. Purpose
2. Scope of Plan,

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3. Definitions
4. Risk Assessment,
 - a. Alternative Forms of Risk Assessment,
 - b. Methodology of Risk Assessment,
 - c. Elements of Risk Assessment,
 - i. Scope of assessment,
 - ii. Risks Identified,
 - iii. Risk Analysis,
 - iv. Risk Evaluation,
 - v. Risk Treatment(safe working procedures)
 - vi. Monitoring and reviewing,
5. Resources,
 - a. Health and Safety Staffing Organogram,
 - b. Employees,
 - c. Subcontractors inclusive of their scope of work and their core resources,
 - d. Training,
 - e. Plant,
 - f. Facilities;

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- g. Vehicles,
- h. Equipment
- 6. Materials,
 - a. Temporary Materials
 - b. Permanent Materials
- 7. Categories of Work
- 8. Implementation of Health and Safety Plan,
 - a. Administrative systems,
 - b. Training,
 - c. Reporting,
 - d. Monitoring,
 - e. Inspections,
- 9. Auditing,
 - a. Internal audits,
 - b. Audits by client or Safety agent,
- 10. Emergency procedures and response

8.3. Risk Assessment

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8.3.1 General

This section of the specification provides guidelines for the Contractor in preparation of risk assessments in order to ensure compliance with Regulation 9 of the Construction Regulations, 2014. According to SANS 31000:2009, Risk is the overall process of risk identification, risk analysis, and risk evaluation. This section highlights the principles related to the preparation of suitable and sufficient risk assessments. Contractor Staff intending to prepare risk assessments should be trained and suitably experienced in the application envisaged.

A suitable and sufficient risk assessment is an assessment which:

- Accounts for risks that are likely to arise during the construction of the Works,
- Enables the development and implementation of systems to manage the risks,
- Remains valid for a reasonable period of time,
- Provides a basis for training of employees, and
- Improves working procedures and introduce long term controls.

The requirements of the Construction Regulations will not be satisfied by a single risk assessment exercise that holds good for all time. The risk assessment process on the Works is an ongoing process.

The objectives of risk assessments are to:

- Identify the risks that are mostly in need of reduction,

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- Identify the various options for achieving such reduction,
- Identify the risks that require careful ongoing management, and
- Identify the nature of the required ongoing attention.

8.3.2 Forms of Risk Assessment

In order to ensure compliance with the Construction Regulations, the Contractor will be required to carry out the following three forms of risk assessment:

8.3.2.1 Activity based risk assessment

The Contractor will be required to carry out activity based risk assessment before the commencement of construction activities on the Works. This risk assessment will form part of the Contractor's Health and Safety Plan. The risks and hazards to which persons, plant, vehicles and facilities may be exposed during the construction of the Works should be identified and evaluated. Measures to reduce or control these risks or hazards should be defined during this assessment. The effectiveness of the measures defined and the baseline risk assessment prepared shall be monitored and reviewed from time to time to ensure that it remains relevant and accurate.

8.3.2.2 Issue based risk assessments

The Contractor will be required to carry out separate risk assessments during construction of the Works when methods and procedures are varied, for example when:

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- Designs are amended,
- New machines are introduced,
- Plant is periodically cleaned and maintained,
- Plant is started-up or shut-down,
- Systems of work change or operations alter,
- Incidents or near-misses occur, or
- Technological developments invalidate prior risk assessments

8.3.2.3 Continuous risk assessments

The Occupational Health and Safety Act specifically requires that employers shall provide and maintain working environments that are safe and without risk to health. The general awareness of hazards needs to be raised as work ethic to maintain a safe and risk free environment on an ongoing basis. This is achieved by continuous risk assessments, the most important form of risk assessment that takes place as an integral part of day-to-day management. Examples of continuous risk assessments include:

- Regular audits,
- Maintaining general hazard awareness,
- Pre-work risk assessment

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8.3.4 Methodology for the Preparation of Risk Assessments

The Contractor shall in the preparation of risk assessments, follow the following general principles:

- Appoint in writing a suitably competent risk assessor
- The appointed risk assessor shall lead the risk assessment process
- Provide the team with background data, scope of work, potential hazards and underlying causes, and
- Where necessary employ experts for complex risk assessments and aspects of risk assessments that require experiential judgment,
- Institute an ongoing system of identifying aspects of the work that require risk assessment.

8.3.5. Elements of a Risk Assessment

The process of carrying out a risk assessment consists of a number of well-defined steps. These steps improve decision-making by providing a greater understanding of the risks and their impacts. The main steps or elements of the risk assessment process are as follows:

- 1) Consider scope and nature of risks involved, determine purpose and physical and legal bounds of assessment and define risk evaluating criteria,

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- 2) Systematically identify risks,
- 3) Analyze risks with regard to causes, likelihood of occurrence and possible consequences against the background of existing controls and its effectiveness,
- 4) Evaluate risks in terms of pre-established criteria to determine need and priority for attention,
- 5) Treat risks through a process of risk elimination, substitution, controlling risk at source, risk mitigation such as training and as far as risk remains, provide personal protective equipment (PPE),
- 6) Monitor and review progress and performance in terms of management system, and
- 7) Communicate and consult.

The above steps are as depicted in Figure 1, below.

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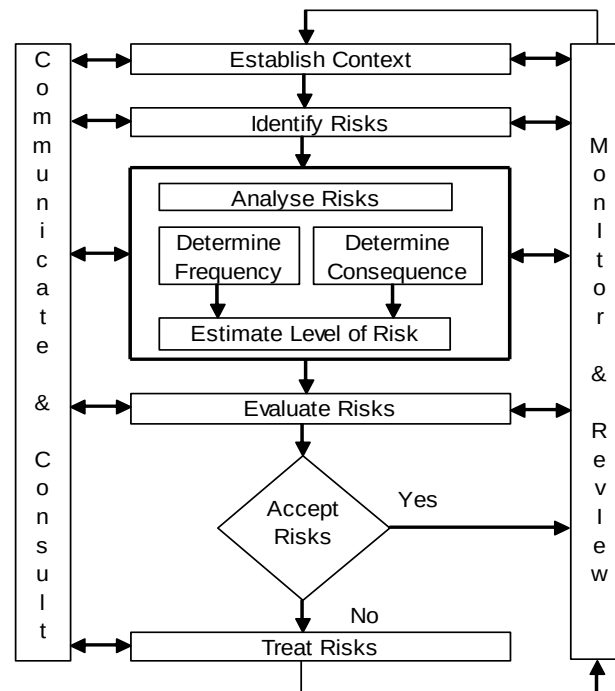


Figure 1: Risk Management Process

The Contractor shall ensure that the risk assessment compiled as part of his Health and Safety Plan contains at least these items.

Refer to Baseline Risk Assessment Annexure 2 of this specification..

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8.3.5.1 Risk Identification

The Contractor should regard this step of the risk assessment as the most important. Subsequent analysis and evaluation of risks and the development of risk control measures are wasted if the risks or hazards on the Works are not carefully identified.

The Contractor should bear the following principles in mind when identifying the risks:

- i) Systematically address all risks or hazards on the Works,
- ii) Review all aspects of the work, but consider only those that have a potential to cause harm,
- iii) Rank the risks identified in order of importance and then use appropriately advanced techniques to deal with major risks,
- iv) Deal mainly with major risks and don't obscure these with unimportant information, especially minor risks,
- v) Address what actually happens in the workplace during the work activity
- vi) Consider all persons that may be affected,
- vii) Highlight those groups and individuals who may particularly be at risk, and
- viii) Review the adequacy and effectiveness of existing safety controls and measures

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3.5.2 Risk Analysis

In this step, the Contractor will be required to analyze the risks identified by determining each risks frequency and magnitude or severity of the consequence of the risk or hazard.

The frequency of occurrence of a hazard may be expressed as the number of times that it may occur in year, decade, lifetime, century, or longer period, according to comparative human experience. The magnitude of the likely consequence of a hazard may be expressed in terms of the degree of incapacitation, number of people or costs involved. The frequency of occurrence of a hazard and the magnitude of its consequence may be compounded as the risk that it poses as shown in the “risk matrix” in Figure 2 below.

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Frequency of Occurrence of Hazard	Severity of Consequences of Potential Hazard					
	1 Medically treatable injury	1 Compensable injury	10 Compensable injuries	1 Permanently disabling injury	1 Fatality	10 Fatalities
Frequent; 1 or more occurrences per year	Medium	High	Very high	Severe	Severe	Severe
Several times during a career; 0.1 occurrences per year	Medium-low	Medium	High	Very high	Severe	Severe
Unlikely, but possible during a career; 0.01 occurrences per year	Low	Medium-low	Medium	High	Very high	Severe
Very unlikely during a career; 0.001 occurrences per year	Low	Low	Medium-low	Medium	High	Very high
Barely credible; 0.0001 occurrences per year	Low	Low	Low	Medium-low	Medium	High

Figure 2: Compounded Risk Matrix

The columns in the table represent the likely consequence of the hazard and the rows, the frequency of occurrence. The scales for both quantities represent consistent progressions, able they qualitative. The risks evidently range from low to severe. Note that diagonals in the matrix represent the risks of the identified hazards, taking the effectiveness of controls into consideration.

The table represents a typical risk matrix that need not necessarily be adopted by the Contractor. The Contractor may use an alternative risk matrix provided that it is approved as part of his Health and Safety Plan.

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8.3.5.3 Risk Evaluation

In this step the Contractor will be required to compare the risks found during the analysis process with similar risks previously experienced for the purpose of deciding how to treat the risk. A useful systematic approach for this purpose is as follows:

- If the assessed risk exceeds similar risks that have occurred in the past and that are considered to be unacceptable, the assessed risk would require treatment depending upon its magnitude as discussed in Section 4.4.5, or
- If the assessed risk exceeds similar historical risks that are acceptable, treatment of the assessed risk will depend on the extent by which it exceeds the historical risks, or
- If the assessed risk is less than historical risks that are unacceptable, treatment of the assessed risk will depend on the extent by which it is less than the historical risks, or
- If the assessed risk is less than historical risks that are acceptable, the assessed risk would also be acceptable and would not require any treatment.

8.3.5.4. Risk Treatment

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The contractor must select one or more options of modifying risks, and implementing those options. The option(s) selected must be covered in the safety plan and be followed as prescribed. Reference can be made to SANS31000:2009 for different risk treatment options. SANS 31000:2009, clause 5.5.3 may be consulted in preparing and implementing risk treatment plans.

8.3.6. Reporting and Recording of Risks

The Principal Contractor shall ensure that the risk assessment process is recorded and included in the Health and Safety Plan. The risk assessment document should be easily accessible to the Contractor's employees, their representatives, to inspectors, the Employer or his Safety Agent. The essential contents of the document should be as follows:

- Objectives and expected outcomes,
- Description of the Works under assessment,
- Summary of context of study
- Composition of risk assessment team, (including qualifications and relevant experience),
- Approach used to systematically identify risks,
- Identified risks (ranked in order of priority),
- Method adopted for assessing frequencies and consequences of risks,
- Consequences (ranked in order of magnitude),

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- Identification of individuals and groups who may be affected by major hazards and risk and who may especially be at risk,
- Basis for defining safety standards to be achieved,
- Contractor's resources devoted to risk assessment,
- Actions proposed to reduce unacceptably high risks,
- Review effectiveness of existing safety measures to control risks, and
- Implementation of program of selected treatments (including controls to manage unacceptably high risks).

8.3.7. Monitoring and Review

The contractor must indicate in the safety plan the monitoring and review plan to be used during the construction work.

8.3.8. Communication and Consultation

The Principal Contractor will be required to communicate and consult with internal and external stakeholders during each step of the risk assessment process. Stakeholders will include the Client or Safety Agent, the Engineer and the Contractor's employees and consultants.

8.4 Resources

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8.4.1 General

In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health and Safety Act, 85 of 1993 and all its Regulations and related incorporated standards with regards to the resources and facilities intended for use on the project (construction work)

3.3.5.2 Employees

The Principal Contractor shall provide in his Health and Safety Plan his intended Staffing Organogram for the construction work. The organogram should include all applicable legal appointments and supervisors as contemplated in the Construction Regulations 2014.

Copies of the supervisory staffs' curriculum vitae or portfolio of evidence, proof of competence and their appointment letters should be appended to the Contractor's Health and Safety Plan.

The Principal Contractor's Health and Safety Plan should in addition cover at least the following aspects:

- The number of unskilled, semi-skilled and skilled (including Foreman, Charge hands, Artisans, Operators, Drivers, Clerks, Store man and Team Leaders) employees he intends employing on the Works,
- The health and safety training to be provided to the Contractor's employees,
- The program of the health and safety training,
- Systems for the review of the effectiveness of the training provided, and

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- Systems to determine further training requirements throughout the construction period.

Pro-forma letters of appointment for the various inspectors, supervisors and issuers as contemplated in the Construction Regulations, 2014 are included in Annexure 1 to this specification for use by the Contractor. The Contractor shall ensure that he includes in his Health and Safety Plan the appointment letters for all his inspectors, supervisors and issuers appointed for the Works.

The Contractor may make other additional legal appointments that are applicable to the project.

8.4.3. Competencies

The Principal Contractor shall appoint competent person to perform duties that require competency.

8.4.4. Physical and Psychological Fitness

The Principal contractor shall ensure that all employees are in possession of a valid medical certificate of fitness to work in such an environment and issued by an occupational health practitioner in the form of Annexure 3 of the Construction regulations.

8.4.5 Subcontractors

The Contractor shall with reference to the use of subcontractors on the Works and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

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- The steps intended to ensure that his Subcontractors prepare, implement and maintain Health and Safety Plans,
- How health and safety information will be made available to his Subcontractors when changes are brought about to the design,
- How he intends determining that his Subcontractors are registered and in good standing with the compensation fund or with a licensed compensation insurer prior to the commencement of the Works,
- How he intends determining if his Subcontractors have made provision in their tenders for the cost of health and safety measures during the construction of the Works,
- How he intends satisfying himself on the competencies and resources of Subcontractors he intends appointing, and
- How he intends ensuring that his Subcontractors perform risk assessments prior to commencing their respective portions of the Works.

8.5 Fall Protection Equipment

The Contractor shall with reference to Section 10: Fall Protection Equipment of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Compilation of a fall protection plan,
- How the fall protection plan will be implemented and maintained,

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- How employees will be screened and declared medically fit to work in areas where fall protection equipment is needed,
- How the safeguarding of persons, plant, vehicles, equipment and facilities on the construction site is contemplated,
- Training of staff working at heights and in the use of fall protection equipment,
- How a continuous assessment of the situation will be executed,
- How fall protection equipment will be inspected for safety, and
- How corrective actions will be implemented
- Emergency plans and procedures for treatment of incidents relating to falls from height.

8.6. Structures

The Principal Contractor is required to adhere to Section 11: Structures of the Construction Regulations 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How the uncontrolled fall of structures will be prevented
- How will maintenance of the structure be carried out

8.7. Temporary works

The Principal Contractor is required to adhere to Section 12: Temporary works of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

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- How the design of Temporary works will be carried out,
- How will the Principal Contractor ensure competent supervision of Temporary works
- How the erection of Temporary work structures will be managed,
- How the continuous assessment of the safety of Temporary work structures will be done,
- How the loading/moving of Temporary work structures will be managed or limited,
- How he intends to provide safe access for all work to be carried out above the foundation bearing level, and
- How he intends keeping records of the above.

8.8 Excavation work

Principal Contractor is required to adhere to Section 13: Excavation work, of the Construction Regulations, 2014.

The Principal Contractor must discuss the following in detail in his safety plan:

- How will the Principal contractor ensure competent supervision of excavation work
- How will the Principal Contractor establish the stability of ground prior to excavations,
- What steps will the Principal Contractor follow to ensure that bolstering, shoring and bracing is sufficient to ensure the safety of the excavation, and
- What steps will the Contractor follow to ensure the equipment used to safeguard an excavation is sufficient and safe?

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8.9. Demolition work

Principal Contractors is required to adhere to Section 14: Demolition work, of the Construction Regulations, 2014.

The Principal Contractor shall discuss the following in detail in his safety plan:

- Briefly explain how he will safeguard people and property during and after demolition works
- Briefly explain how he will protect staff from dangerous situations
- Discuss the methods proposed to safeguard the public and property against harm during demolition works
- Discuss what type of equipment he envisage to use during demolition work
- How will the Contractor ensure the safety of equipment used during demolition work
- What steps will the Contractor deem necessary to take where hazardous materials is encountered
- How he will comply with the explosives legislation where the demolishing work involves the use of explosives
- Dust control measures
- Noise control measures

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8.10. Scaffolding (should it be required)

The Principal Contractor shall with reference to Section 16: Scaffolding of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Appoint competent person in writing for scaffolding operations supervision,
- How compliance with SABS 085 will be ensured,
- How scaffolding in use will be maintained,
- What systems are intended to ensure the safety of scaffolding used,
- What tests will be performed to establish the safety of scaffolding used, and
- Training plan for scaffold erectors and inspectors.

8.11. Suspended platform

The Principal Contractor shall with reference to Section 17: Suspended platforms of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Appoint in writing a competent person who will supervise all suspended platform works operations.
- What systems he intends using to ensure the safety of all suspended platforms,

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- What tests will be performed to establish the safety of suspended platforms,
- How he intends maintaining suspended platforms being used, and
- How he will document the design, testing, maintenance and inspections of the suspended platforms.

8.12. Material hoists

The Principal Contractor shall with reference to Section 19: Materials Hoist, of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends confirming the construction stability of the material hoists,
- Appoint in writing a competent person to inspect material hoist
- What systems he intends using to ensure the safety of all material hoists,
- How inspections will be carried out daily
- What tests will be performed to establish the safety of all material hoists,
- How he intends maintaining the material hoists being used, and
- How he will document the design, testing, maintenance and inspections of all material hoists and
- Ensure competence of operators of hoist material
- What safety procedures and precautions are envisaged to ensure safe operation of the materials hoists?

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8.13. Bulk Mixing Plant

The Principal Contractor shall with reference to Section 20: Bulk mixing plants of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- What systems he intends using to ensure the safety of all bulk mixing plants,
- Appointment in writing of a competent person to supervise the operation of the bulk mixing plant
- How he intends maintaining the bulk mixing plants in use, and
- How he will document the design, testing, maintenance and inspections of bulk mixing plants in use.

8.14. Explosive actuated fastening Device

The Principal Contractor shall with reference to Section 21: Explosive actuated fastening device, of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Appointing a competent person for operation, maintenance and use of explosive actuated fastening devices,
- How he intends controlling the issuing of explosive actuated fastening device,
- How he intends implementing safety procedures prior to use of explosive actuated fastening devices, and

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- What safety measures will be required during the use of explosive actuated fastening devices?

8.15. Cranes

This section of the specification shall be read in conjunction with the provisions of the Driven Machinery Regulations, 1988.

The Principal Contractor shall with reference to Section 22: Cranes, of the Construction Regulations 2014 and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How will environmental factors be taken into account in respect to the use of cranes,
- What systems he intends using to ensure the safety of all cranes in use,
- How he intends maintaining cranes in use,
- What tests will be performed to establish the safety of all cranes in use,
- What safety procedures and precautions are envisaged to ensure the safe operation of all cranes in use,
- How he will proof the medical fitness of the tower crane operators,
- How he will document the design, testing, maintenance and inspections of all cranes in use, and
- The Principal contractor shall proof compliance of the Driven Machinery Regulation, 1988, with reference to the lifting machinery and tackle being used.

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8.16. Construction vehicles and mobile plant

The Principal Contractor shall with reference to Section 23: Construction vehicles and mobile plant of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends ensuring that construction vehicles and mobile plant are:
 - Of acceptable design and construction,
 - Maintained and in good working order,
 - Used according to design specifications, and
 - Are protected from falling into excavations, water or areas lower than the working surfaces,
- How he intends ensuring that workers are competent, authorised and physically fit to operate construction vehicles and mobile plant,
- What traffic arrangements and safety precautions will be implemented to ensure safe operation of construction vehicles and mobile plant on the Works,
- How he intends to comply with the National Road Traffic Act 1996, and
- How he intends safeguarding employees against construction vehicles and mobile plant moving on the construction site.

8.17. Electrical Installation and Machinery on construction sites

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This section of the specification shall be read in conjunction with the provisions contained in the Electrical Installation Regulations, 1992.

The Principal Contractor shall with reference to Section 24: Electrical Installation and machinery on construction sites of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Appointment of competence person for all temporary control and inspection of all temporary electrical installations,
- How he intends safeguarding employees against electrical cables or apparatus under, over or on site, and
- How he will ensure that electrical installations are of adequate strength to withstand working conditions on a construction site.

8.18. Use and temporary storage of flammable liquids on construction sites

This section of the specification shall be read in conjunction with the provisions for the use and storage of flammable goods as determined in the General Safety Regulations.

The Principal Contractor shall with reference to Section 25: Use and temporary storage of flammable liquids on construction sites of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

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- How flammable liquids will be stored to minimize the risk of fire or explosions,
- How the contractor will identify a flammable store
- What safety precautions will be employed if ventilation of the flammable store is not possible,
- How access to flammable stores will be controlled,
- How empty vessels used for the storage of flammable liquids will be disposed of,
- What quantity of flammable liquids will be stored on the construction site,
- What systems are intended to ensure the safe storage of flammable liquids, and
- What retaining methods will be used to prevent the spreading of any spillage?

8.19. Water Environments

The Principal Contractor will be required to adhere to Construction Regulation 26: Water Environments, of the Construction Regulations, 2014.

The Principal Contractor must discuss the following in detail in his safety plan:

- What precautions will the Contractor take to identify dangers where employees may fall into water
- What safety procedures and equipment will the Contractor implement to safeguard employees working at water environments

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8.20. Housekeeping and general safeguarding on construction sites

Principal Contractors will be required to adhere to Section 27: Housekeeping and general safeguarding on construction sites, of the Construction Regulations, 2014.

This regulation must be read in conjunction with the provisions of the Environmental Regulations for Workplaces, 1987 (as amended).

The Principal Contractor must discuss the following in detail in his safety plan:

- How will contractors ensure the neatness of construction sites
- What measures does the Contractor envisage to
 - Store and/or stack materials,
 - Remove debris from site,
 - Prevent unauthorized entrance to the site
 - Protect employees or passers-by from falling objects

8.21. Stacking and storage on construction site

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This section of the specification shall be read in conjunction with the provisions for the stacking of articles contained in the General Safety Regulations.

The Contractor shall with reference to Section 28: Stacking and storage on construction sites of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Who will supervise the stacking and storage of materials on site,
- What systems are intended to ensure the safe stacking and storage of materials on the site ,and
- How he will keep the storage areas neat and under control

8.22. Fire precaution on construction sites

Principal Contractors will be required to adhere to Section 29: Fire precautions on construction sites, of the Construction Regulations, 2014.

This regulation must be read in conjunction with the provisions of the Environmental Regulations for Workplaces, 1987 (as amended).

The Principal Contractor must discuss the following in detail in his safety plan:

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- How the Principal Contractor will minimize the risk of fire on the site
- How the Principal Contractor will identify potential fire hazards
- What prohibitions the Contractor will implement to manage risk areas
- How many employees the Principal Contractor will train in firefighting as per risk assessment
- What organization the Principal Contractor envisage to combat fires on sites
- What precautions and procedures will be followed to evacuate employees in the case of a fire

8.23. Construction employees' facilities

Principal Contractors is required to adhere to Section 30: Construction welfare facilities of the Construction Regulations, 2014.

This regulation must be read in conjunction with the provisions of the Facilities Regulations, 1990 (as amended) and SANS 10400.

The Principal Contractor must discuss the following in detail in his safety plan:

- How will the Principal Contractor establish the amount of facilities required for employees to shower, change, eat and attend to sanitary needs

What measures will the employer take to house employees on site who lives far from their residences or for the provision of transport?

8.24. Operational Control of the Construction Site

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In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health and Safety Act, 1993 and all its regulations and related incorporated standards with regards to the execution of all categories of work.

8.24.1. Personnel Safety Equipment and Facilities

The Contractor shall comply with Section 2 of the General Safety Regulations, and shall in particular provide all necessary personnel protective equipment for his personnel for the duration of the construction period. To this end the Contractor shall without limiting his obligations indicate in his Health and Safety Plan:

- Identify training requirements in the use and maintenance of personal protective equipment,
- The type of personnel safety equipment he will provide,
- How he intends issuing it to his employees, and

How he will maintain the personnel safety equipment issued.

8.24.2. Display of substituted notices and Signs

The following notices and signs are, where applicable, compulsory on the construction site as well as the contraction yards.

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Area/Activity where construction sign is needed	Notice or sign required in
Display of notices and signs	General Safety Regulation 2b
Entry	General Safety Regulation 2 (c)
First Aid box	General Safety Regulation 3 (6)
Toilets and Change rooms	Facilities Regulation 2(5).4 (2) (f)
Hazardous and Chemical Storage area	General Safety Regulation 4 (8) (i) and (ii)
Machinery	General Machinery Regulation 9
Prohibition of smoking and eating or drinking at workplaces where high risk substances are stored or handled	Facilities Regulation 7

8.24.3. First Aid, Emergency Equipment and Procedures

The Principal Contractor shall comply with Section 3 of the General Safety Regulations regarding first aid, emergency equipment and procedures.

- How he intends to ensure competence of first aiders and
- What emergency equipment will be used

8.24.4. Work in confined spaces

The Principal Contractor shall comply with Section 5 of the General Safety Regulations regarding work in confined spaces.

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- How he intends to ensure competence of the people working in confined spaces.
- What steps to be taken to ensure the safety of the confined space and the air therein
- What measure he intends to put in place in case of emergency in a confined space

8.24.5. Welding, flame cutting, soldering and similar operations

The Principal Contractor shall comply with Section 9 of the General Safety Regulations, with regards to the welding, flame cutting, grinding, soldering or similar operations associated with pipework.

How the contractor intends to inform employees of the Safe operations and use of equipment and hazards which may arise

8.24.6 Ladders

The Principal Contractor shall with reference to Section 13A of the General Safety Regulations and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends ensuring that ladders used are safe and constructed of materials approved for its intended use, and
- What precaution will be made to ensure the stability of ladders in use?

8.24.7. Environmental Conditions

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The Principal Contractor shall comply with the Environmental Regulations for Workplaces, 1987, and shall address the following aspects as described in the regulations in his Health and Safety plan:

- Thermal requirements,
- Lighting,
- Windows,
- Ventilation,
- Housekeeping,
- Noise and hearing conservation,
- Precautions against flooding, and
- Fire precautions and means of egress.

8.24.8. Hazardous Chemical Substances

The Principal Contractor will be required to adhere to the Regulations for Hazardous Chemical Substances 1995 as amended in the handling and storage of hazardous chemical substances.

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The Principal Contractor must discuss the following in detail in his safety plan in respect of each hazardous chemical substance that will be used in the works:

- Storage of substance
- Handling of substance
- Protective clothing and other devices to be used while handling the substance
- Medical surveillance.
- How will he ensure that employees are adequately and comprehensively informed and trained

8.25. Implementation of Contractors' Health and Safety Plan

8.25.1. General

The Principal Contractor shall describe in his Health and Safety Plan how he intends implementing his OHS plan.

The Principal Contractor shall indicate the methods he intends using to ensure accurate record keeping of all critical elements identified in his risk assessment and covered in his Health and Safety Plan.

The Principal Contractor shall indicate:

- How internal audits will be carried out,
- How audit findings will be addressed,

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- How he would implement the corrective measures and recommendations of internal audits or inputs of employees.
- How he intends to review the safety plans,
- How he would train staff and keep training records

8.25.2 Administrative Requirements

The Principal Contractor shall comply with the administrative requirements of the Occupational Health and Safety Act and Regulations 85 of 1993 and other legal requirements. The Principal contractor's administrative system will without limiting his obligations cover the following:

- Keeping of a safety file on site,
- Maintenance of his Health and Safety plan,
- Procedures to follow for the appointment of competent persons,
- Construction work permits (where applicable)
- Procedures to follow for notifications,
- Injury on duty [IOD] administration,
- Minutes of safety meetings,
- Inspection checklists/registers,

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- Safe keeping of checklists/registers, and
- Internal audits documentation.

The Principal Contractor shall in particular ensure that at least one copy of the Occupational Health and Safety Act, 1993 and its Regulations is available on site for every 5 employees employed.

8.25.3. Incident Reporting, Investigation and Recording

The Principal Contractor shall comply with Section 9 of the General Administrative Regulations, 1996 and shall in particular (in accordance with section 12) furnish an inspector with information relating to health and safety on the construction site, when requested to do so.

The Principal Contractor shall report all incidents and or occurrences to the Client, investigate and keep record as contemplated by the Occupational Health and Safety Act 85 of 1993 and Regulations.

8.25.4. Training

The Principal Contractor shall train all his employees in accordance with the requirements of section 13 of the Occupational Health and Safety Act, 1993. The Principal Contractor shall ensure that every employee is informed of the following:

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- The hazards of any work he has to perform or plant machinery or equipment he is permitted to use, and
- The precautionary measures which should be taken regarding the above.

The Principal Contractor shall, without limiting his obligations, indicate in his Health and Safety Plan how he intends:

- Identifying the training needs of the personnel he intends employing, and
- Implementing the training identified
- What proof of induction training will be carried by his employees

8.25.4.1. General induction Training

- All members of the contractor's management as well as all the people appointed as responsible for Occupational Health and Safety in terms of the OHS Act, Construction Regulations and other Regulations are required to attend a general safety Induction
- All employees of the principal contractor and other contractors must be in possession of proof of Induction Training
- All subsequent and newly appointed employees must also be subjected to the Induction Training as soon as possible after the appointment but prior to start work on site.
- All visitors must undergo an induction training on arrival to site

8.25.4.2. Site Specific Induction Training

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The principal contractor will be required to prepare the Task based Induction training based on the risk assessment for the contract work and train all employees who will be involved in the selected task. All employees must have a proof of such training and copies in the Safety File

8.25.4.3. Other Training

1. All operators, drivers and users of construction vehicles and mobile plants must be in possession of a valid proof of training and where applicable licenses and proof of competency
2. All employees in jobs requiring competence in terms of the OHS Act and Regulations must be in possession of valid proof of training.

8.25.4.4. Awareness and Promotion

The Principal Contractor is required to have a promotion and awareness program in place to create an Occupational Health and Safety culture within employees as well as subcontractors. The following are some of the methods that may be used:

- Toolbox Talks
- Posters
- Videos

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- Competitions
- Participative activities such As Occupational Health and Safety Circles

8.26. Safety Meetings

The Principal Contractor shall conduct at least one formal safety meeting per month with his employees to ensure safety awareness and shall maintain appropriate records of attendance and meeting content. Such records shall be included in the safety file. The meetings shall address at least the following:

- Accident / safety incidents
- Hazardous conditions
- Hazardous materials / substances
- Job or work projections
- Safe Work procedures
- Protective clothing / equipment
- Housekeeping
- Inspections
- General safety topics

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8.27. Occupational Health and Safety Committees

The principal contractor must establish Occupational Health and Safety committees consisting of all designated Occupational Health and Safety Representatives together with a number of management Representatives that are not allowed to exceed the number of Safety Reps on the committee. The members of the Safety Committee must be appointed in writing and the appointment letters must be in the Safety File.

The Safety Committee must meet but at least twice a month and consider at least the following agenda items:

- Opening and Welcome
- Members present, apologies and absent
- Minutes of previous meeting
- Matters arising from the previous meeting
- Safety Representatives inspection reports
- Incident and/or accident investigation reports
- Incident, accident and /or injury statistics
- Audit feedback
- Medical surveillance
- Endorsement of legal OHS registers and other statutory documents by a duly authorized representative of the principal contractor

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- General
- Close and next meeting

8.28. Inspections and Monitoring

The Principal Contractor shall be required to inspect each workplace prior to works commencing to ensure that minimum control measures and protective equipment are in place and that by entering the workplace no person will be exposed to any hazard which could affect his health or safety. The Principal Contractor shall without limiting his obligations, indicate the following in his Health and Safety Plan:

- The inspection and monitoring procedures he intends employing to determine the safety of workplaces, and
- Who will be responsible for the checking of each workplace at the commencement of each shift?

The Principal Contractor shall include in his Health and safety Plan all the checklists he intends using during the inspection and monitoring of the implementation of his Health and Safety Plan.

The Principal Contractor can expect inspections of the works by any of the following parties:

- The Client or Safety Agent,
- Department of Labour Inspector or any authorized person appointed by the Minister as Chief Inspector or his representative.

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The Client, Safety Agent or his representative will stop the work at any time under the following conditions:

- If the Contractor is not compliant with his Health and Safety Plan
- Imminent threat to the health and safety of any person on site
- Continuous non-conformance to corrective action requests.
- In the occurrence of section 24 incident
-

8.29. Auditing

8.29.1. Internal Audits

The Principal Contractor shall conduct periodic site audits as contemplated in section 7.(1.c.vii) of the Construction Regulations 2014

The Principal Contractor will ensure that the same arrangement detailed above be implemented with his Sub Contractors to ensure his compliance with the Construction Regulations.

8.29.2. Audits by Client or Safety Agent

The Client or Safety Agent will carry out period audits or follow-up audits, as the case may be, at any time during the construction period provided that:

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- i) The audit or follow-up audit are carried out during ordinary working hours, and
- ii) The Client or Safety Agent gives the Contractor at least 48 hours' notice of his intention to carry out such audits.

The audits described above only constitutes part compliance by the Client or the Safety Agent with section 5.(1)(o) of the Construction Regulations, 2014.

The Principal Contractor's employees as indicated in the OHS organogram and the Client's project manager will be present during any audit carried out by the Employer or his Safety Agent.

NB: The office space of the Principal contractor utilized for the project duration will be audited in line with the requirements of the Occupational Health and Safety Act 85 of 1993 and Regulations.



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ANNEXURE 2

Identified Hazards

In terms of Regulation 5 (1) (a) of the Construction Regulations 2014, the client must prepare a baseline risk assessment for intended construction work project.

NOTE: The list of potential hazards is by no means intended to be all inclusive and is not limited to this list, and it remains the responsibility of the Contractor to identify all possible hazards with regards to his scope of work and to put measures in place to mitigate, reduce or control these hazards.

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BASELINE RISK ASSESSMENTS:

REPAIR AND MAINTENANCE ON CENTRIFUGAL BLOWERS AT ROOIWAL AND ZEEKOEGAT WASTE WATER TREATMENT WORKS



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**REPAIR AND MAINTENANCE OF
Mechanical and Electrical Works
for WASTE WATER TREATMENT
WORKS**

RISK RATING

PROBABILITY

DATE:

15-25 EXTREME

S = SAFETY

8 - 14 HIGH

H = HEALTH

4 - 7 MEDIUM

E = ENVIRONMENT

1 - 3 LOW

Q=QUALITY

CONSEQUENCES

Almost
Certain

Likely

Possible

Unlikely

Almost
Impossible

5

4

3

2

1

LOCATION

ROOIWAL AND ZEEKOGAT

SCOPE OF
WORK

**REPAIR AND MAINTENANCE ON
CENTRIFUGAL BLOWERS**

ASSESSMENT
TEAM

5

25

20

15

10

5

S FATAL

H FATAL



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E	Major impact (Long term)								
S	Serious injury (Reportable)								
H	Permanent none Lethal effect	4	20	16	12	8	4	SAFETY AGENT	P.L MPHAI
E	High impact								
S	Loss Time Injury (Less than 14 Days)								
H	Reversible severe effect	3	15	12	9	6	3	CLIENT	CITY OF TSHWANE
E	High impact (6 Months)								
S	Injury need Medical Assistance								
H	Reversible Minor effect	2	10	8	6	4	2		
E	Slight impact (1 Month)								
S	Minor Injury (First Aid)								
H	No effect	1	5	4	3	2	1		
E	No effect								

	ACTIVITY/ TASK	HAZARDS	RISKS	RISK ANALYSES				CONTROLS	RESIDUAL RSK RATING
				S H E Q	Consequence	Likelihood	Risk Rating		



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1.	Cleaning the outside of the blowers	1. Exposure to a running equipment 2. Exposure to dust 3. Contact with oil spillages 4. Exposure to contaminate equipment 5. Exposure to noise 6. Working on heights	1. Inhalation of dust which could lead to respiratory/breathing problems 2. Contract covid-19 3. Slip and fall which can lead to Injuries; 4. Hearing illness 5. Falling from step ladder and fracturing you bones	S	2	3	6	1. PPE – Wear safety gloves, safety glasses and dust masks 2. Adhere to COVID-19 protocols 3. Use Lock out procedure isolation 4.	5
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2.	Maintenance of the blower and gearbox, transformers and panels ,radiator	1. Exposure to a running equipment 2. Exposure to dust 3. Contact with oil spillages 4. Exposure to contaminate equipment 5. Exposure to noise 6. Exposure to faulty electrical cables 7. Exposure to Vibration 8. Contact with unsafe tools	1. Electrical shock; 2. Explosion causing Fire 3. Contact with life electricity 4. Cuts from sharp tools 5. Contaminated with COVID-19 6. Loss of hearing 7. Inhalation of dust	SH	5	2	10	1. Lock Out procedure 2. Fir fighting equipment in place 3. Competent person to perform the task 4. Issuing of PPE ,Mask ,ear muffs and Gloves \ 5. Inspection before performing work 6. Medical surveillance	5
----	--	---	---	----	---	---	----	--	---



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3.	Replacing of parts panels, blower filters and gearbox, O Rings	1. Contact with oil spillage 2. Contact with running equipment 3. Contact with sharpening equipment 4. Exposure to dust 5. Exposure to noise 6. Exposure to damaged tool e.g. broken Ladder 7. Exposure to COVID 19 8. Poor house keeping 9. Poor disposal of used oil, parts	1. slip and falling ,causing multiple injuries 2. land pollution 3. Trapping in between machinery obtaining cuts or loses limbs 4. Loss hearing 5. inhalation of dust 6. Falling from heights	SE	5	2	10	1. Inspection on equipment and tools before work 2. Toolbox and awareness 3. Medical surveillance to be conducted 4. Issuing PPE, Ear muffs ,dust mask, gloves 5. Lockout procedure 6. Screening on entering workplace 7. Issuing of Sanitizer and soap 8. Waste management procedure	5
----	--	---	--	----	---	---	----	--	---



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4.	Transportation of employees and equipment	1. Untrained driver 2. Unsafe driving 3. Incorrectly packed equipment or tools in the vehicle 4. Exposure to employee with COVID 5. Over loading of passengers 6. Operation motor vehicle which is not serviced	1. Accidents causing injuries or fatality 2. Falling out equipment on moving cars 3. Transmission of COVID 19 4.	S	5	2	10	1. Motor vehicle only operated by authorized and competet person 2. Storage box behind to the vehicle 3. Disinfection of the vehicle 4. Inspection before driving 5. Awareness /tools box talks	5
5.	Lifting of equipment	1. Contact with life electricity 2. Damaged hoist 3. Exposure to noise 4. Exposure overhead loads	1. Electrical shock 2. Falling object causing injuries 3. Hearing illness	S	5	3	15	1. Only competent personnel will operate lifting equipment or machinery 2. Wearing ear, hard hats and PPP 3. Inspection of equipment and machinery before operating 4. Operating procedure should be in place	5

The task should not proceed if the risk rating after the controls are implemented is still HIGH or EXTREME.

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ANNEXURE 3 **MANDATORY AGREEMENT** **(SECTION 37.2)**

ARTICLE OF AGREEMENT IN TERMS OF SECTION 37(2) OF THE
OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 BETWEEN
THE CITY OF TSHWANE METROPOLITAN MUNICIPALITY
(Hereinafter referred to as the "CLIENT")
AND

.....

Herein represented by in
his/her capacity as duly
authorised by virtue of a resolution dated
Attached hereto as Annexure A of the said
(hereinafter referred to as the "CONTRACTOR").

WHEREAS the CONTRACTOR is the mandatory of the CLIENT as contemplated in an agreement in respect of

.....

Contract number

.....

AND WHEREAS section 37 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993, hereinafter referred to as the "ACT"), imposes certain powers and duties upon the CLIENT.

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AND WHEREAS the parties have agreed to enter into an agreement in terms of section 37(2) of the ACT.

NOW THEREFORE the parties agree as follows:

1. The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
2. The CONTRACTOR undertakes that all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations will be fully complied with: Provided that should the CLIENT prescribe certain arrangements and procedures, that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
3. The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures, if any, imposed by the ACT and Regulations and the CONTRACTOR expressly absolves the CLIENT from itself being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedures as the case may be.
4. The CONTRACTOR agrees that any duly authorized officials of the CLIENT shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with this undertaking as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.
5. The CONTRACTOR shall be obliged to report forthwith to the CLIENT any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this agreement, and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge as the case may be.

Thus signed at PRETORIA for and on behalf of the CLIENT on this the.....day of..... 20
.....

AS WITNESSES:

1.

2.

SIGNATURE

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.....
NAME AND SURNAME

.....
CAPACITY

Thus signed at PRETORIA for and on behalf of the CONTRACTOR on this the

..... day of 20

AS WITNESSES:

1.

2.

.....
SIGNATURE

.....
NAME AND SURNAME

.....
CAPACITY

 CITY OF TSHWANE IGNITING EXCELLENCE	OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION	
	PROJECT LOCATION	REPAIRS FOR MECHANICAL AND ELECTRICAL EQUIPMENT FOR THE WASTE WATER TREATMENT WORKS
	PROJECT DESCRIPTION	REPAIR AND MAINTENANCE OF MECHANICAL AND ELECTRICAL EQUIPMENTS
	PAGES	Page 79 of 80

ANNEXURE 4

ACKNOWLEDGEMENT OF RECEIPT OHS SPECIFICATION

Acknowledgement of receipt of OHS Specification:

Name of Designer/Contractor

I, the undersigned, hereby acknowledge that I have obtained copies of OHS Specification and confirm full compliance to the conclusion of project or construction work.

Signed aton this Day of.....20.....

Signature of Designer /Contractor Manager

Date

Signature of Contractor Supervisor

Date

 CITY OF TSHWANE IGNITING EXCELLENCE	OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION	
	PROJECT LOCATION	REPAIRS FOR MECHANICAL AND ELECTRICAL EQUIPMENT FOR THE WASTE WATER TREATMENT WORKS
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Witness 1 Witness 2