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## BUSINESS MANAGEMENT SYSTEM CONTRACTOR SAFETY DOCUMENT

## **CORPORATE**

## **MANAGEMENT STANDARD**

# FOR THE CONTROL OF CONTRACTORS

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## **BUSINESS MANAGEMENT SYSTEM**

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## **Purpose**

To provide a guideline for the management of contractors and subcontractors working on Mimosa projects so that they comply with Business Policy, objectives and requirements.

MMC requires all Contractors and subcontractors on its projects to comply with and achieve the objectives of the following

- Business Policy
- Business Management System
- Safety, Health and Environment Management Plan

## 2. Scope

This document covers the Business Management System(BMS), legal, tendering and operational requirements for contractors seeking to conduct work on behalf of Mimosa.

The specifications contained herein apply to all MMC contractors and subcontractors.

The BMS requirements herein are based on the operational requirements of ISO 14001 and OHSAS 18001 management systems.

#### 3. Definitions

3.1 MMC : Mimosa Mining Company

3.2 SHE : Safety Health and Environment

3.3 BMS : Business Management System

3.4 PR : Project Manager

3.5 MMC Representative:

3.6 Principal Contractor

- 3.7 Tender Procurement: A committee set up in accordance with MMC policies and procedures that adjudicate tenders. The committee includes all SHE personnel.
  - 3.7.1 Hazardous substances: Is any substance or material specified in statutory regulations as being hazardous which can be corrosive, explosive, acidic, basic, oxidizing or reducing in its chemical nature.

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## 4. References (Come back here later)

- 4.1 Mimosa Legal Register
- 4.2 Contractors SHE Questionnaire
- 4.3 Mimosa Safety Health and Environment Tender Requirements
- 4.4 Mining (Management and Safety) Regulation, SI 109 of 1990
- 4.5 Explosive Regulation, SI 72 of 1989
- 4.6 NSSA (Workers Compensation and Accident Prevention) Notice, SI 68

## 5. MANAGEMENT SYSTEM REQUIREMENTS

## **5.1 Leadership and Commitment**

- 5.1.1 The Contractor shall demonstrate strong commitment to Safety, Health and Environment and the Contractor shall develop a written Safety, Health and Environment Policy (ies) signed by its top management. This policy shall be actively supported and endorsed by the Contractor's management.
- 5.1.2 The Contractor shall ensure that its written policy is widely disseminated and understood among its employees, and that its policy includes a description of the Contractor's organization, procedures and methods of communication to and from personnel.
- 5.1.3 The Contractor must provide copies of its policy to the MMC upon request.

## 5.2 Legal Requirements and Regulations for Health, Safety and Environment

- 5.2.1 The Contractor shall familiarize with the contents and implications of the applicable legislation, the MMC's induction form, procedures, guidelines and standards applicable to the services to be provided.
- 5.2.2 The Contractor must ensure that its personnel and its subcontractor's personnel have been informed of all relevant and applicable laws, acts, regulations, procedures and standards in accordance with SI 109, Mining (Management and Safety) Regulation of 1990.

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## CONTRACTOR SAFETY DOCUMENT 5.3 Contractors' General Requirements for Health and Safety

- 5.3.1 The Contractor is solely responsible for carrying out the work under the Contract having the highest regard for the health and safety of its employees, the MMC's employees and persons at or in the vicinity of the Site, the Works, temporary work, materials, the property of third parties and any purpose relating to the Contractor carrying out its obligations under this Contract.
- 5.3.2 The Contractor must initiate and maintain safety precautions and programs to conform to all applicable Health and Safety laws or other requirements, including requirements of any applicable government instrumentality and client corporate, business unit and site requirements. The Contractor must, at its own cost, erect and maintain safeguards for the protection of workers and the public. The Contractor must manage all reasonably foreseeable hazards created by performance of the work. The Contractor must:
- a. provide all things and take all measures necessary for maintaining proper personal hygiene, ensuring safety of persons and property and protecting the environment at or near the Site
- b. avoid unnecessary interference with the passage of people and property at or near the Site
- c. prevent nuisance and excessive noises and unreasonable disturbances in performing the Services
- d. be responsible for the adequacy, stability and safety of all of its site operations, of all its methods of design, construction and work and be responsible for all of the work, irrespective of any acceptance, recommendation or consent by the MMC, its Contractors, employees, agents and invitees, or any Government Body
- e. costs for the above are borne by the Contractor
  - 5.3.3 The Contractor must comply and is responsible for ensuring that all of its Sub-contractors comply with the relevant legislation(s) and statutory regulations for health and safety, the MMC's Health & Safety requirements included in the Contract and other document pertaining to health & safety contained in the Programme Health & Safety Management System and include standards, policies, procedures, guidelines and safe work instructions.

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## 5.4 Contractor's Health and Safety Management Plan

- 5.4.1 The Contractor must prepare, implement and administer the Contractor's Safety, Health and Environment Management Plan. The Plan is in writing and will be submitted by the contractor at the tendering stage for review and evaluation by the Tendering and Procurement Committee. The Health and Safety Management Plan must comply with this Control of Contractors document including Project Site Rules & Requirements, and applicable law relating to workplace health and safety and environmental health. Any proposed amendments or revision to the Contractor's Safety Management Plan is submitted to the MMC for acceptance.
- 5.4.2 The Health and Safety Management Plan must provide a systematic method of managing hazards according to the risk priority, and must include all mobilisation and site set-up activities.
- 5.4.3 The Plan will be audited for completeness by the MMC Tender and Procurement Committee.
- 5.4.4 The Contractor's Health and Safety Management Plan must demonstrate management's commitment to safety and must include, but not be limited to, the following minimum auditable elements:
- a. The Contractors' Safety Policy.
- b. Assignment of SHE responsibilities to different roles within the organisation.
- c. Identification and role of Safety Coordinator, and on site agent/managers.
- d. Selection, placement and training procedures, including induction and ongoing training in 'Basic Safe Work' and Occupational Health & Safety training for newly hired or promoted supervisors.
- e. Occupational Health & Safety communications and meetings, including daily safe task instructions and project safety meetings.
- f. Assessment of sub-contractors and Service Providers, including requirements for Health & Safety Plans.
- g. Safety awareness promotions.
- h. Nomination of personnel to carry out safety inspections. The task may be shared with other duties and provided within the resources of individual gangs and may be rotated.
- i. Contractor senior management involvement with Company's staff in consultative processes & daily management Safety walkabouts.
- j. Occupational Health & Safety Workplace Environment, including provision for monitoring employee exposures to noise, dust, etc.
- k. Rules and regulations including safety procedures the Contractor has in place for recurring work activities
- I. Personal protective equipment rules.

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- m. Control of dangerous and hazardous substances.
- n. System of hazard identification and risk control, such as Risk assessments, Daily Safe Task Instructions and communication.
- o. Design control (if applicable)
- p. Monthly internal safety inspections to ensure compliance with Health & Safety Plans
- q. Daily site safety inspections and audits. The auditing role may be shared with other duties or provided within the resources of individual groups. The role may be rotated.
- r. Inspection of plant, tools and equipment prior to introduction to site and at least monthly thereafter
- s. Accident/incident reporting, recording, investigation and analysis, which ensure that corrective action, are taken and this action is communicated to report initiators.
- t. Evacuation and emergency planning
- u. Rehabilitation procedures that encourage an early return to work
- v. Record keeping, including details of what is kept and for how long

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## 5.5 Hazard Identification, Risk Assessment and Risk Control

- 5.5.1 The contractor shall ensure that all hazards associated with the work have been identified and risks assessed and control measures that lower the assessed risks are implemented. The contractor shall also ensure that a system is in place to assess risks associated with daily tasks are identified and controlled.
- 5.5.2 The contractor shall also identify the aspects of the work that have potential to harm the environment and shall put in place measures to eliminate, substitute or control the aspects or mitigate against the impacts.
- 5.5.3 The contractor shall develop a project/work scope and activity risk profile identifying and considering, safety, health and environmental hazards and exposures, for example, rigging, working at height, welding, confined spaces, delivery Contractors, unloading materials and equipment from trucks, hazardous substances, etc
- 5.5.4 Control measures to manage risks identified will be formalized and implemented. The contractor shall consider mitigation/control of risk in the following order of preference/hierarchy: Elimination, Substitution, Engineering, Administrative and lastly Personal Protection Equipment.
- 5.5.5 Hazard identification and risk assessment shall be conducted for specific operations and activities and for new activities identified after the development of the project/work scope and activity risk profile. (Considers methodology, expert advice and selection of participants).
- 5.5.6 The implementation of a safety observation (behavior audit) and coaching process conducted as a minimum by persons in leadership roles
- 5.5.7 The HIRA procedure shall define the method by which daily activities will be assessed for hazards and controls defined before work commences
- 5.5.8 Contractor will carry out inspections and maintain requests and records of inspections and maintenance of plant, mobile plant, equipment and tools requiring formal management, including and not limited to:
- a. Mobile cranes
- b. Vehicles
- c. Scaffolding
- d. Hoists and winches
- e. Lifting gear
- f. PPE
- g. Ladders
- h. Pressure vessels
- i. Elevated work platforms
- Man hoists

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- k. Explosive powered tools
- I. Portable electrical equipment
- m. Confined spaces.
- n. Authorised Isolators and Lock holders
- 5.5.9 The contractor shall have a procedure for the control of dangerous and hazardous substances. No dangerous and hazardous chemicals shall be brought on to the MMC site without prior approval by MMC. MSDS for each dangerous and hazardous chemical substances shall be kept alphabetically and copies diplayed where the chemical is stored and used.
- 5.5.10 The Contractor must conduct, with appropriate personnel, Construction Safety Studies to identify the detailed methodology and related hazardous activities, in particular those with potentially catastrophic consequences such as multiple and single fatalities, of the Contractor's Site installation work scope, for example crane operations and positions, lift sizes, work at height locations, confined spaces locations, work near operational plant, hot work, hazardous substances and dangerous goods being used, etc.
- 5.5.11 The Contractor must also conduct, with appropriate personnel, Preliminary Hazard Assessment (PHA) workshops to identify the work methodology and related hazardous activities, in particular those with potential for fatality or serious injury, of tasks and activities related to particular work packages or locations. In all circumstances the objective of these risk management processes will be to eliminate hazards or otherwise reduce risks through the hierarchy of controls.
- 5.5.12 Where the PHA workshop identifies that administrative controls (procedural controls) have to be used to reduce the risk to an acceptable level, then the Contractor's work crew or individual if it is a one person task, must carry out a Job Hazard Analysis (RA) of the task or activity, which will result in a Work Instruction for routine tasks and activities or the documented RA for non-routine, one-off or changing tasks and activities. RA's will be reviewed by the Contractor prior to starting work each day or shift, and Work Instructions prior to starting work each week.
- 5.5.13 A five stage hazard identification ( define job, identify hazards, assess risk, control risk, monitor) and risk assessment process will be implemented by the Contractor for commissioning and start-up activities, conducted on all system commissioning and live testing operations, activities and tasks prior to introducing hazardous energy and/or materials.
- 5.5.14 The Contractor's Site Management Representatives, supervisory personnel, technical experts as required, and work force personnel directly involved will participate in these hazard and risk assessment processes, and the findings documented. The MMC, and/or the MMC's nominated Representative must attend the workshops / studies. At these workshops/studies the Contractor's methodology may be reviewed task by task, potential hazards identified, and actions agreed on to mitigate risk.
- 5.5.15 Risk assessments of plant and equipment is undertaken and documented before arrival at site and after major service, after modification, and before use in an unusual operating mode. They are undertaken by a suitably qualified and experienced person and is reviewed and signed by the Contractor Project Manager or Equipment Supervisor.
- 5.5.16 Such risk assessments for equipment mobilising to Site is reviewed and accepted by the MMC, or MMC's nominated Representative prior to the equipment arriving at Site, and

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must consider, where applicable, potential for entanglement in moving parts, crushing or striking by moving or falling objects, cutting or stabbing by sharp objects, high pressure fluids, electrical shock or burns, burns from hot or cold surfaces, slips, trips and falls, ergonomic design of access and egress (3 points of contact to be maintained), seating, vibration, noise, exhaust fumes, etc. The identification of hazards should consider normal operations, abnormal or unusual operations, maintenance and servicing operations. Particular attention is given to fall protection attachment points when there is a requirement to work over 2 meters above the ground (servicing earthmoving equipment for example).

- 5.5.17 The contractor must implement and comply with SI 109 requirements for machinery and Factories and Works (Machinery) Regulations where applicable.
- 5.5.18 The Contractor must ensure that all plant, equipment, power and hand tools brought onto the site by the Contractor or his sub-Contractors are:
- 5.5.18.1 Appropriate for the type of work to be performed
- 5.5.18.2 Approved, inspected, tested, numbered and tagged (if appropriate) in accordance with Occupational Health & Safety Statutory regulations and MMC rules, before importation onto the site
- 5.5.18.3 Properly maintained in accordance with manufacturer's recommendations
- 5.5.18.4 Placed on register and checked at least monthly and or more frequent as required by required by Legislation and or MMC rules

### 5.5.18.5 Hierarchy of Control

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

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

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

The Contractor must propose the RA process and record format to be used, considering the requirements below. The documented RA and/or resulting Work Instruction is completed by the work crew and job supervisor, and at least one team member is skilled and experienced in the RA / risk assessment process. Completed RA's is available for review by the work crew, the MMC and the MMC's nominated Representative upon request.

#### The RA must:

- Describe the operation to be performed in the sequence of the basic job steps
- Identify the hazards or potential hazards at each step
- Identify the Site Rules apply

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- Assess the risk the hazard presents
- Describe how the hazard is controlled such that the residual risk is as low as reasonably practicable (ALARP) and is acceptable to the work crew
- Identify the related Work Instruction if appropriate
- Be reviewed prior to each shift
- Be acknowledged by way of signature of all personnel involved in the work activity

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## **5.6 Injury Management**

- 5.6.1 The contractor shall develop, implement and maintain an incident management procedure (including injuries, near misses, and environmental incidents) that addresses the following points:
- 5.6.2 The contractor shall ensure employees are medically fit and suited to perform their functions safely. All employees under the contractor shall undergo medical examination with the local clinic in order to obtain a red tick required under the Pneumoconiosis Act.
- 5.6.3 The incident management procedure shall include the reporting and investigation of incidents including root cause establishment and corrective action taken
- 5.6.4 All incidents will be reported immediately to MMC Representative and experienced and trained investigators from the Contractor and from MMC will carry out the investigations as per MMC procedures.
- 5.6.5 All incident investigation action plans shall be reviewed to gauge their effectiveness in addressing the root causes.
- 5.6.6 Mimosa may at the request of the Contractor or in its own discretion offer or require the contractor to offer trauma counseling services to employees involved in serious accidents.
- 5.6.7 All significant incidents that require notification to authorities such as Inspector of Mines or Environmental Management Authority, shall be communicated only through MMC. The contractor shall not communicate incidents to external authorities except through MMC who is the client.

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## 5.7 Health and Safety Communication and Consultative Processes

- 5.7.1 The contractor shall develop, implement and maintain a system/procedure for effective communication between employees and management, participation of employees in Safety, Health and Environment programmes and consultation of employees on matters of Safety, Health and Environment. The procedure shall specify:
- a. How project leadership will ensure all personnel are kept regularly up to date with Health and Safety information and how prompt feedback will be given to personnel for issues they raise. For example, hazard reports
- b. The establishment and maintenance of a consultative process for the duration of the project
- Daily pre-start discussions that encourage staff and leaders to try to anticipate and pre-empt potential hazards within the day's activities along with "Toolbox" meetings and project safety meetings
- d. Implementation of improvement programs that encourage and recognise personnel suggestions to enhance Health and Safety on site
- e. Health and Safety publicity and awareness programs. For example, competitions and lifestyle improvement
- f. Attendance at site safety meetings by Project Manager, Safety Manager and Safety Representatives.
- g. The Safety Representative shall be elected and appointed per work area and discipline in compliance with SI 68

#### 5.8 Involvement Communication and Motivation

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

The contractor must implement and comply with SI 68. The Contractor must conduct weekly safety meetings with his employees to foster safety awareness. Copies of minutes and action items arising from such Toolbox meetings is submitted or otherwise made available for review by the MMC or the MMC's nominated Representative.

## Such meetings should at least address:

- · Accident / safety incidents
- Hazardous conditions
- Hazardous materials / substances
- Work procedures

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- Protective clothing / equipment
- Housekeeping
- · General safety topics
- Job or work look-ahead issues
- Safety statistics
- 5.8.3 The Contractor must conduct at least one formal safety meeting per month and must maintain appropriate records of attendance and meeting content. Such records is made available to the MMC Representative.
- 5.8.4 In addition to Daily SHE Task Instructions, the Contractor must conduct at least daily "tool box" meetings to discuss safety issues and procedures.
- 5.8.5 The Contractor must hold documented Daily Safe task Instructions with each work team before the start of each shift. Attendance records and brief topic notes is kept for auditing and record purposes.
- 5.8.6 The Contractors' Site Manager and a Site Safety Representative must take part in weekly safety review meetings between the Contractor's and the MMC or the MMC's nominated Representative.
- 5.8.7 The Contractor must attend all project safety meetings as outlined in the Project Safety Management Plan.
- 5.8.8 In all cases where 20 or more people work on a project, a Health and Safety Representative shall be elected and appointed, as described in the SI 68 at a rate of one Health and Safety for every 50 employees or part thereof.
- 5.8.9 The Contractor must ensure that sufficient elected and/or appointed Health and Safety representative/s represent all workers employed by the Contractor. Each elected and/or appointed Health and Safety Representative is required to attend an accredited Health and Safety Representatives training course, at the expense of the Contractor, in accordance with the provisions of the applicable legislative requirements.
- 5.8.10 The Contractor must ensure that elected and/or appointed Health and Safety Representatives execute their functions as under the provisions of applicable legislation.
- 5.8.11 Where a breach of a Site Health & Safety rule or The Contractors safety procedure is identified the Contractor must ensure that any disciplinary action taken is in accordance with an approved code of conduct or NEC regulations. In the absence of a disciplinary procedure and dependent on the nature of the breach, the process as outlined below should be used:
- First breach verbal warning/counseling
- Second breach written warning/counseling
- Third breach appropriate disciplinary action taken

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5.8.12 Where a breach of a Health & Safety rule has occurred and is considered blatant, the person's Site access may be withdrawn at the discretion of the MMC Representative after consultation with the relevant persons.

## 5.9 Education, Training and Competency

- 5.9.1 The contractor shall develop, implement and maintain a procedure to ensure that all employees under his employ are competent on the basis of education, training and/or experience.
- 5.9.2 The procedure shall address the following:
- 5.9.2.1 Identification of the competencies required by employees along with selection, placement and any training requirements
- 5.9.2.2 Identification and implementation of the process that will be used to ensure that employees hold the required competencies
- 5.9.2.3 The identification of minimum core and Health, Safety and Environment skills required by persons in leadership and supervisory roles
- 5.9.2.4 The development of a training and development plan that ensures personnel attains the desired skills and is also able to monitor refresher-training requirements
- 5.9.2.5 Mechanisms to review the effectiveness of training where appropriate.
- 5.9.2.6 A site induction and orientation system that includes specific site issues and requirements and compliments the General Induction.
- 5.9.2.7 Methodology for briefing personnel on new or changed standards, site rules and or procedures, particularly after absence from site.
- 5.9.2.8 Compliance with MMC training and competency requirements
- 5.9.3 Prior to the commencement of the work, including mobilisation and site setup activities, the Contractor must provide current documentation including CVs and certificates to MMC for the verification that the Contractor's and subcontractor's personnel are competent and have the appropriate qualifications, job skills and training as required by the contract and applicable legislation.
- 5.9.4 The Contractor must ensure that all his employees and his Sub-Contractors' employees working on the site are adequately trained in the type of work to be performed, are trained in relevant procedures and have the appropriate qualifications, certificates and tickets, and are under competent supervision. Records of appropriate training and qualifications of all employees are to be maintained on site.
- 5.9.5 Employees will not be permitted to perform tasks for which they have not been adequately trained.

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- 5.9.6 Generally, all equipment operators will be required to be re-assessed, using the equipment provided and in the conditions existing on site, in relation to heavy vehicle/light vehicle operation and interactions.
- 5.9.7 The Contractor represents and warrants that its supervisors are competent, and have been trained and advised in writing that they are responsible, and have accepted and acknowledged such responsibilities in writing, for ensuring that the work is performed in accordance with all applicable laws, rules and regulations, good working practices, and any additional guidelines and/or operating standards provided to the Contractor by the MMC. Copies of appointment of competent people as per section 7 of SI 109, Mining (Management & Safety) Regulations of 1990 shall be lodged with the MMC Representative and shall be updated to reflect acting appointments and any staff changes/movements.
- 5.9.8 The Contractor's and/or subcontractor's employees including transporters must, where required by legislation, be the holders of current relevant certification or permits where the operation being performed requires such certification, for example:
- Fitters
- Welders
- Boiler makers
- Crane and Hoist Drivers
- Riggers
- Scaffolders
- Machinery Operators e.g. forklift, dump truck, etc.
- Winch Drivers
- Demolisher
- Electricians
- Plumbers
- Gasfitters
- Trade Assistants
- Steel fixers
- Carpenters
- Concrete Finishers etc
- 5.9.9 Contractor's and subcontractor's employees carrying out the following designated tasks require specific authorisation by MMC, i.e.:
- a. Operation of mobile equipment including cranes and work platforms
- b. Slinging of loads from, and the direction of movement of loads by, cranes and other lifting devices
- c. Erection and dismantling of scaffolding in excess of 4.5 metres in height
- d. Driving light vehicles, buses, trucks, etc
- e. Supervising Excavations deeper than 1.5m
- 5.9.10 The Contractor must request authorisation of persons nominated to perform these tasks, with 2 weeks notice, and must support that request with copies

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of competency certificates, including driving license, and relevant medical certification, copies of log books or work experience that can be verified, and a written statement attesting to the fact that the employee is competent to perform the nominated function. Note that medical examinations for drivers and crane operators are specific to the trade. Copies of all such evidence of competence are logged in a Register maintained by the Contractor. The Contractor must provide electronic copies of such Register/s to the MMC upon request.

- 5.9.11 MMC or the MMC's nominated Representative may at any time conduct a task observation so as to determine the ability of any operator of equipment or person carrying out a nominated specific task. If the MMC or the MMC's nominated Representative is of the opinion that the person is not "currently competent", that person must cease work immediately, undergo the necessary retraining or be removed from that activity. Retraining is at the Contractor's expense.
- 5.9.12 The Contractor must ensure that no employee of the Contractor or its subcontractors, including transport and delivery Contractors entering the site delivering materials and/or equipment, must proceed to enter the Site or any operations area until they have received all training required under applicable laws and regulations, including, but not limited to, work activity inductions and the MMC's Site-specific induction. This Project induction has a "life" of 12 months, after which re-induction is required.
- 5.9.13 Employees must not have access to the site until they have completed this induction.
- 5.9.14 The Contractor must also prepare and present to all its employees its own Contractor Induction, explaining the Contractor's Safety Management Plan, the Contractor's Rules, the obligations imposed by the Zimbabwean Acts and Regulations, the Project Safety booklet, as well as a Site-specific induction, which must as a minimum consist of an introductory briefing explaining the nature of the work, the general hazards which may be encountered during the operation, and the particular hazards attached to their own function within the operation and how these hazards controlled.
- 5.9.15 The Contractor must ensure that all its personnel and its subcontractor's personnel receive a copy of the Contractor's Health, Safety and environment training manuals or handbooks relevant to their jobs which must detail Health, Safety and environment code and conduct, personal safety protection, emergency response and personal health conduct.

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- 5.9.16 The Contractor must provide the MMC with details of ongoing training programs and must provide the MMC with all related revisions during the term of this Contract. The Contractor must provide programs for the above to overcome any language, literacy or comprehension impairments.
- 5.9.17 A full day is set-aside for Induction and production of appropriate photo identification of all employees.

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- 5.9.18 Prior to induction all employees must undergo a pre-employment medical examination (If required) and found fit for duty. A copy of the certificate of fitness is presented for permanent record at the induction centre and kept at site offices for permanent record to be transferred to MMC on project completion. Employees found with health conditions and need to receive chronic medication, shall be monitored as to the effect that medication are taken.
- 5.9.19 The Contractor must ensure that identification badges and exit medical certificates are submitted to the MMC site representative when people are demobilised, failure must result in withholding of final payment until exit medical certificates are received and or a penalty of R200-00 is paid for every badge not submitted.
- 5.9.20 MMC must ensure exit medical and badges are received before final payment of employees.

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## 5.10 Measurement and Review

- 5.10.1 The contractor shall implement and maintain a process of reviewing its performance as follows:
- 5.10.1.1 Safety, Health and Environment performance reviews with all site personnel by their supervisors at monthly intervals
- 5.10.1.2 Schedule of site inspections and audits involving persons in leadership roles
- 5.10.1.3 Leadership participation and review of significant incidents
- 5.10.1.4 Schedule of reviews of the Safety, Health and Environment plan implementation progress
- 5.10.1.5 Schedule of external Safety, Health and Environment audits of the project
- 5.10.1.6 Scheduled reviews after the completion of potentially high-risk activities on site
- 5.10.1.7 Provision for monitoring of employees exposure to noise, dust etc
- 5.10.1.8 Inspection and acceptance of plant, equipment, tools etc prior to introduction to site and regularly thereafter

## 5.11 <u>Health and Safety Alignment Meetings</u>

- 5.11.1.1 The MMC or the MMC's nominated Representative will hold a Health and Safety alignment session with preferred Tenders in the period between Tender submission and Contract Award. The Tender's senior project and proposed site management personnel must attend.
- 5.11.1.2 This session will be focused on the contents of the tender in relation to the expectations of the MMC and the MMC's nominated Representative with regard to the Tender's Health and Safety leadership and project Health and Safety management proposals.
- 5.11.1.3 The aspects of the Contractor's tender that are unclear or sections of the Tender Document that have been missed or not fully understood and may need further explanation, will be discussed and resolved.
- 5.11.1.4 At the end of the session, the Contractor will have a complete and unambiguous understanding of the requirements with respect to the management of Health and Safety during the project works and the MMC will fully understand what the Contractor has included in his tender.
- 5.11.1.5 MMC may elect to allow the Contractor to review its Tender submission as a result of this session.
- 5.11.1.6 After award of the Contract and prior to work commencing, the Contractor must participate in a Kick-Off Health and Safety review and alignment

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session with the MMC or the MMC's nominated representative. The purpose of this review and alignment session is:

- To compare the contents of the Contractor's Health and Safety Management Plan and the Project Health and Safety Management Plan
- To facilitate a consistent approach to Health and Safety issues
- To ensure specific Health and Safety risks are addressed prior to commencement
- To align all parties on the programme Health & Safety Goals, expectations, and requirements pertaining to Health & Safety
- To arrange training to the Contractors Site Management team regarding Construction Safety Leadership
- Provide information on the Clients specific Health & Safety Site Rules and Requirements
- 5.11.1.7 The Contractors' Project Manager and Project Sponsor or equivalent, and Senior site representative, site leadership must attend the above meetings, alignment and training sessions. The meetings, alignment and training sessions will be conducted prior to the Contractor commencing activities on the Site, including mobilisation and site set-up activities.
- 5.11.1.8 The Contractor must not commence any site activities until written acceptance (at least "accepted with comments") of the Contractor's Health and Safety Management Plan is obtained from the MMC.
- 5.11.1.9 Contractors are responsible for qualifying all Sub-contractors using this system. Sub Contractors approved for work will be forwarded to MMC review and comment. The contractor will keep this list up-to-date and will provide monthly updates to the status of Sub Contractors engaged by the principal contractor.

## 5.12 Site Supervision

- 5.12.1 The contractor shall comply with Zimbabwean Acts and Regulations
- 5.12.2 The Contractor must nominate and appoint a responsible person on site to whom MMC may refer in connection with the work. Persons are nominated for all shifts worked or whilst any activity relating to the Contract is being performed on site, and must have the authority to bind the Contractor with respect to the Contract. (Zimbabwean Acts and Regulations).
- 5.12.3 The Contractor must ensure that the performance of all specified work is supervised throughout by a sufficient number of qualified and competent appointed representatives of the Contractor, who have experience in the type of work specified.

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

- 5.12.4 The Site Supervisor must be equipped with a mobile telephone with message bank and/or pager or an equivalent communication device so that communication throughout the Contract can be maintained at all times.
- 5.12.5 The Site Supervisor must provide a list of names and contact telephone numbers of all Contractors and Sub-Contractor's contact persons on Site. This list is updated as a new Contractor or Sub-Contractor employee commences on Site.
- 5.12.6 The Site Supervisor must keep a record of all employees, including date of induction, relevant skills and licenses, and be able to produce this list at the request of MMC Representative.
- 5.12.7 MMC Representative is notified of any new starter with evidence of induction and site specific induction prior to commencement of work.
- 5.12.8 A SHE Officer shall be appointed in terms of MMC requirements shall be on site when work commences and be present until all activities for the day (Including sub-Contractors) are finished. The Safety Officers shall be appointed in the following ratio: (Total number of people to include subcontractors).
- 5.12.8.1 49 or less people on site Part time Safety Officer spending 2 Full days per week on site.
- 5.12.8.2 50 people on site and up to and including 300 people Full time Safety Officer.
- 5.12.8.3 More than 300 people on site a full time Safety Officer for every 300 (e.g. 350 employees = 2 Officers and 690 employees = 3 Officers etc.)
- 5.12.8.4 Where work is conducted at night, a full time Safety Officer shall be present through out the work.
  - 5.12.9 The Contractors' Safety Officer is responsible to assist with legal compliance. He must report functionally to the MMC Safety Manager on site.
  - 5.12.10 The SHE Officer must be contactable.
  - 5.12.11 The Safety Officer must have the following minimum qualifications:
  - a. At least 5 O"levels
- b. At least 2 years experience as a Safety Advisor on construction projects
- c. A relevant safety diploma or better

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- d. Sound knowledge of the Zimbabwean Acts and Regulations and other applicable legislation identified as best practice
- e. Sound knowledge of hazard identification and risk management processes
- f. Sound knowledge of incident causation model
- g. Sound knowledge of accident investigation procedures
- h. Valid First Aid Certificate
  - 5.12.12 When teams are working in separated areas the MMC Representative may instruct the Contractor to appoint First Aiders and Safety Representatives per work area regardless if less than fifty people are working in an area
  - 5.12.13 Prior to work commencing, the Contractor must submit a CV of their proposed Site Safety Officer to MMC Health & Safety Programme Manager for an interview and approval.

## 5.13 Contractors' Safety Manual

- 5.13.1 The Contractor must provide both electronic and hard copies of its safety manuals, policies and procedures to the MMC and must ensure that its personnel, at all times, strictly observe and comply with the procedures set out therein. MMC or the MMC's nominated Representative may from time to time request safety procedures applicable to the area of operations. The Contractor must forward to the MMC any updates or revisions to its safety manuals, policies or procedures as soon as practicable following revision or update.
- 5.13.2 MMC may require the Contractor from time to time to supplement its safety manual, policies and procedures with guidelines and/or operating standards provided to the Contractor by the MMC.
- 5.13.3 The manual shall consist of the following policies and procedures
- a) Safety, Health and Environment Policy/ies
- b) Hazard identification and risk assessment procedures
  - 5.13.4 The Contractor must develop a Health and Safety Management Handbook that will summaries the requirements of the Contractor's Health and Safety Management Plan and Contractor's Rules. The document is in a format that can be issued to all employees at inductions and prior to the employee commencing work on Site, and is maintained for reference by all

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employees. The MMC must approve in writing the format and contents of the Handbook prior to its issue.

- 5.13.5 The Contractor must ensure that each employee acknowledges receipt of the Contractor's Health and Safety Management Handbook by way of signature. The Contractor is responsible for producing this record of signatures and acknowledgement as and when required.
- 5.13.6 Where reading skills and/or language is an issue with the workforce the Contractor must propose an alternative to the above, maintaining the intent of the above, for acceptance by the MMC

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#### 5.14 **Performance Measurement and Reporting**

## 5.14.1 Health and Safety Statistics

**Contractor's employees** 

Total

**Subcontractors (External)** 

The Contractor and each of its Sub-contractors must complete and submit Health and Safety statistics to the MMC or the MMC's nominated representative, or as amended by the MMC, before mid-day on the Wednesday of each week in line with the template issued by MMC. The contractor must submit monthly Health & Safety Statistics before mid-day on the 22<sup>nd</sup> of each month to the SHE Department in the format below on OHS/FORM 28a obtainable from SHE Department.

Item No.	Mine No.	Name	Date Of Accident	Time Of Accident	Length of Service	Age	Dept Section	Occupation	Place Of Accident	Operation	Risk Domain	Energy Form	Brief Description	Class	Days Lost
<u>ACCII</u>	DENT ST	<u> TATISTIC</u>	CS for MON	TH YEAR		Month			This Ou	ıarter			Year to Da	ıte	

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## 5.14.2 Safety Management Records

The Contractor must submit to the MMC for acceptance a schedule of the specific Health and Safety records it intends to maintain for the Contract. As a minimum, such records are as specified by applicable legislation. Copies are provided to the MMC or the MMC's nominated Representative if requested.

5.14.3 Field Technical/Safety Audit by MMC: MMC or the MMC's nominated Representatives have the right to conduct audits/inspections of the Contractor's Safety Management Plan implementation, operations, equipment, emergency procedures, etc at any time, and the Contractor must fully cooperate with the MMC or the MMC's nominated Representative during such audits/inspections. The MMC's rights under this clause do not/must not and will not relieve the Contractor of its own obligations to conduct audits and reviews of its own Health and Safety performance.

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- 5.14.3.1 Where such audits/inspections reveal deficiencies in the Contractor's procedures, drills, training or equipment, or non-conformities with the Contractor's accepted project Safety Management Plan, of a minor nature (Risk Rating of 100 or less), the Contractor must investigate the cause of the nonconformity and initiate corrective and preventive action to rectify such deficiencies and non-conformities and prevent recurrence as soon as practicable.
- 5.14.3.2 Where such audits/inspections reveal deficiencies of a medium to unacceptable risk (Risk rating of 100 or greater), the Contractor must stop work on the operation/activity concerned, immediately investigate the cause of the nonconformity, and initiate corrective actions to rectify such deficiencies and non-conformities and to prevent recurrence. These corrective action plans are submitted to the MMC for review and comment within 24 hours of the audit finding.
- 5.14.3.3 Where such deficiencies include an unsafe practice or a breach of the statutory or the Contract's requirements, the MMC or the MMC's nominated Representative may in accordance with the contract suspend the work associated with the unsafe practice or breach until the deficiency is rectified.
- 5.14.3.4 The MMC or the MMC's nominated Representative will establish a schedule of regular field safety audits which will be based on an audit tool aligned to the Contractor's Safety Management Plan and site operations and activities. The Contractor's audit conformance will be assessed as a percentage and where conformance is better than 90% it will be considered satisfactory and the Contractor must develop and implement an action plan as soon as possible but not later than 4 weeks depending with complexities of the issues involved. The action plan will be reviewed at the next regular audit.
- 5.14.3.5 Where the Contractor's level of conformance is between 75 90%, a corrective action plan will be required to be developed and implemented within 2 weeks, and a follow up audit will be carried out. Where the Contractor's conformance is less than 75% the Contractor must stop work until an investigation of the cause/s has been completed and corrective actions have been developed and implemented by the Contractor.
- 5.14.3.6 The Contractor must provide to the MMC or the MMC's nominated Representative, at a time to be agreed, not to exceed monthly intervals a regular status report on all outstanding corrective actions until they are successfully closed out.
- 5.14.3.7 The Contractor must implement a system to recognize, correct, and report unsafe acts/conditions (Unsafe Act/Condition Auditing) associated with all Site activities

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## 5.15 Sub-contractor Management

- 5.15.1 The contractor must notify MMC Representative and obtain written approval prior to engaging a subcontractor.
- 5.15.2 The Contractor must ensure that all its sub-contractors have written Safety Management Plans in place and implemented that are of a standard suitable for the type of activity being undertaken, which address the hazards involved with the particular work activity, and which support the Contractor's accepted safety management approach.
- 5.15.3 The Contractor must ensure these Plans are in place before allowing sub Contractors to mobilise to site. Subcontractor Safety Management Plans must include management of transport and delivery Contractors entering the site delivering materials and/or equipment.
- 5.15.4 The Contractor and its subcontractors must actively participate in any programs and/or activities designed to improve the Health and Safety performance on the project.
- 5.15.5 In accordance with clause the contractor must submit subcontractor's SHE Statistics together with his/her monthly statistics clearly indicating statistics attributable to each subcontractor.
- 5.15.6 The subcontractor shall be required to comply with any other obligations which the contractor is ordinarily expected to comply with.

## 5.16 Emergency Procedures

- 5.16.1 The Contractor must ensure that all personnel on the Site, including visitors, are properly instructed in the Site emergency response procedures. Drawings and plans, indicating emergency equipment and escape routes shall be displayed on notice boards and other places as may be required.
- 5.16.2 The Contractor must provide a person qualified to give first aid attention on the Site at all times that the Contractor is carrying out work on the Site. The minimum qualification is that provided by the St John's Ambulance Brigade or Red Cross Society.
- 5.16.3 The Contractor must provide and maintain first aid equipment on the Site. The equipment is to a standard as laid down by the Statutory Regulations.
- 5.16.4 First Aid Boxes to be provided with contents as per minimum legal requirements. Boxes is provided in all working areas and kept locked. Record to be kept, in an appropriate register of all treatment done.
- 5.16.5 A list with emergency numbers must be posted at phones in every office. Provide workers with stickers to place inside their hardhats with emergency numbers printed on stickers.

## 5.17 Management of Change

- 5.17.1 Where there is a change in process, systems, material or technology, the Contractor must develop a procedure and system to manage the change process. This procedure and system must address the required processes to ensure that proposed changes do not give rise to unacceptable risk to health, safety, assets and/or the environment.
- 5.17.2 The change management process must aim to ensure the following
- 5.17.2.1 Changes are identified and recognized.
- 5.17.2.2 Careful consideration is given to managing the Risks associated with any change
- 5.17.2.3 Due diligence can be shown to have taken place

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- 5.17.2.4 A reduction in the number of unsatisfactory or unnecessary changes
- 5.17.2.5 Involvement of the right people in the change process
- 5.17.2.6 All statutory requirements are met
  - 5.17.3 The change management controls must apply having regard to the fact that change may be planned, sudden or gradual.

## 5.18 Occupational Health and Hygiene

- 5.18.1 The Contractor must ensure that personnel under its control and authority comply with the requirements of occupational health and hygiene which include:
- 5.18.1.1 General level of personal fitness and/or medical conditions
- 5.18.1.2 The consumption of alcohol
- 5.18.1.3 The use of other drugs (prescription, pharmaceutical or illicit)
- 5.18.1.4 Fatigue
- 5.18.1.5 Stress
  - 5.18.2 The Contractor must ensure that personnel under its control and authority do not at any time, during the performance of the work, take or work under the influence of any alcoholic and/or other drug other than for bona fide medical reasons or other proper reasons that have been approved in advance and in writing by the MMC Project Manager The measures to be taken by the Contractor must include a drug test prior to such personnel starting work on the site. The Contractor must ensure that personnel under its control and authority comply with the site's program of random testing for alcohol and other drugs.
  - 5.18.3 The Contractor must ensure that all the Contractor's personnel are healthy and medically fit for their respective assignments and must lodge copies of medical examinations certificates with MMC. The Contractor is responsible for pre-placement and exit medicals and ongoing health assessments.
  - 5.18.4 The Contractor must ensure that operators of mobile equipment undergo "fit for work" medical examination every 1 year and crane operators engaged in lifting man boxes every 5 years. This medical is to certify that the medical practitioner has examined the operator and formed the opinion that the operator is free from deafness, defective vision, epilepsy, heart disease, and any other infirmity likely to cause the operator to lose control of the machine being operated.
  - 5.18.5 The Contractor is responsible for the medical welfare of its own employees, servants or agents and their families.
  - 5.18.6 MMC needs to meet statutory requirements on limitation of noise emitted by machines and equipment. When Contractors personnel are required to operate such equipment, noise levels at the operator position must not exceed an equivalent level of 85-dB (A) during normal working conditions. Employees working in the vicinity must not be subjected to an equivalent continuous level of 85-dB (A) during normal operating conditions. Comply with time periods and PPE requirements where applicable.
  - 5.18.7 Symbolic safety signs, warning employees re the hazard of noise in the area, shall be erected at all entrances to the area and in a position where it is clearly visible
  - 5.18.8 The Contractor must ensure that its personnel and subcontractor's personnel must maintain high standards of hygiene in connection with the performance of the work.
  - 5.18.9 The Contractor must maintain all work areas in a clean and tidy state and must promptly and appropriately dispose of waste material.

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5.18.10 The Contractor must ensure meal rooms are kept in a clean and tidy manner to the satisfaction of the MMC or the MMC's nominated Representative and any statutory requirements.

## 6. OPERATIONAL REQUIREMENTS TO MANAGE HAZARDS AND RISKS

Prior to the commencement of the work, including mobilisation and site set-up activities, the Contractor must demonstrate to the satisfaction of the MMC Representative that the Contractor has performed hazard identification and risk assessment of the Work, and of the associated equipment and facilities, to meet the requirements of the Contract. The Contractor is responsible and accountable for ensuring that effective operational procedures and assessment systems are in place so as to control hazards and so mitigate risks to as low a level as is acceptable and to meet all the Health and Safety management requirements under this Contract.

#### 6.1 Project Specific Hazards

6.1.1 MMC Project manager will issue the base line risk assessment to the Contractor in the form of a Mimosa Risk Register prior to the commencement of the project. The contractor must then review the risk register and use the risk register to develop safe work plans.

#### 6.2 Hazard and Facility Review Studies

- 6.2.1 The Contractor must ensure that Hazard Identification studies is incorporated into the Contractor's Design Management Plan and scheduled at appropriate stages of the design process. This will include HAZOP and HAZAN studies.
- 6.2.2 The Contractor must make available suitably qualified and experienced personnel to participate in the hazard identification studies. The MMC and/or MMC's nominated Representative will also participate. The Contractor is required to provide all input data for the conduct of the studies.
- 6.2.3 The Contractor is responsible for the implementation of the study findings and must carry out any modifications to design or plant required by the outcomes of the studies.
- 6.2.4 Whilst MMC shall make all reasonable efforts to ensure that the safe and clean design input information provided is complete and correct, the Contractor must make his/her own assessment of the hazards and risks associated with the Work under the Contract, consistent with the requirements of the Contract and the obligations imposed by all applicable legislation.

## 6.3 Construction Plant and Equipment

- 6.3.1 The contractor must implement and comply with Zimbabwean Acts and Regulations.
- 6.3.2 The Contractor must supply, at his cost, all items of plant and equipment necessary to perform the work and must maintain all items in good order and condition.
- 6.3.3 Should any plant or equipment become inoperable for a period considered by the MMC Representative to be harmful to the progress of the work, the Contractor, on the MMC Representative's instructions, must remove the unserviceable plant or equipment and replace it with similar serviceable plant or equipment at no cost to MMC.

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- 6.3.4 No item of plant or equipment delivered to site for this Contract is removed from the site prior to the completion of the Contract without the written approval of the MMC Representative.
- 6.3.5 The MMC Representative reserves the right to inspect items of plant or equipment brought to site by the Contractor for use on this Contract. Should the MMC Representative form the opinion that any item is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, the MMC Representative must advise the Contractor in writing and the Contractor must forthwith remove the item from the site and replace it with a safe and adequate substitute. In such cases, the Contractor must not be entitled to extra payments or extensions of time in respect of delay caused by the MMC Representative's instructions.

#### 6.3.6 Registers/Schedules

The Contractor is expected to:

- 6.3.6.1 Set up an initial set of plant, tools and equipment registers
- 6.3.6.2 Complete the registers for each piece of plant, tool & equipment brought onto site
- 6.3.6.3 Maintain a complete, continuous and comprehensive inspection & service history in these registers
- 6.3.6.4 Ensure at least monthly inspections are done and recorded for all plant, tools & equipment by a competent person.
- Any serious deviations that compromises safety or the environment noted during the inspections must be brought to the attention of MMC representative in writing and be corrected immediately.

## 6.4 Work Method Statement

- 6.4.1 Where required, the Contractor must submit Work Method Statements to MMC. These are submitted 72 hours prior to the work commencing, or on request of MMC or MMC's nominated Representative.
- 6.4.2 Acceptance of a Work Method Statement by MMC must not relieve the Contractor of responsibility for ensuring full compliance with Contract specifications and conditions. Specific Work Method Statements may also be required by legislation.

## 6.5 Critical Hazard Management Plan

- 6.5.1 Where the Contractor identifies a Critical Hazard, that is one that has the potential to cause multiple fatalities and the exposure is not an isolated occurrence, it must develop a Critical Hazard Management Plan to control the risk. These Plans are submitted to the MMC for review and shall be entered in the Site Risk Register. Journey hazards to and from the Site should be included.
- 6.5.2 The plans are periodically reviewed (every four months) for applicability and suitability.

## 6.6 Unsafe Operations

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

## 6.7 Work in Operating Areas

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- 6.7.1 When the Contractor is working in close proximity to operating cranes, roads, access ways or other equipment and a safety hazard has been identified, the Contractor must provide safety watchers as necessary or as directed by the MMC or the MMC's nominated Representative and must provide, erect and subsequently dismantle all the required barriers, flags, wheel stops, buffer stops, flashing lights or other safety equipment to enable its operations to proceed in a manner which satisfies the MMC or the MMC's nominated Representative. At all times, defined access ways shall be kept clear of objects or obstructions which can cause injury to personnel or damage to equipment or plant.
- 6.7.2 The Contractor warrants that the Contract rates and prices caters for all safety watchers (spotters or look-outs), signs, lights, barriers, traffic barricades, protective shielding and the like required for the protection of personnel, plant and construction operations.
- 6.7.3 The Contractor must at all times keep defined access ways clear of objects or obstructions which may endanger the health, safety or welfare of personnel or cause damage to equipment or plant.
- 6.7.4 The Contractor must provide any temporary protective shielding required for the protection of construction activities from nearby operations, at his expense.
- 6.7.5 The Contractor shall obtain relevant permits prior to undertaking any work. In addition to this, the Contractor must advise the MMC Representative immediately prior to commencing work in the area.
- 6.7.6 Where the work is carried out in hazardous zones or where there is a danger of producing combustion in adjacent flammable materials, the Contractor must provide a dedicated fire watch for job site control, including management and implementation of preventative action.
- 6.7.7 For all work done in live plant the Contractor's supervisors must obtain a permit to work from the client's operational control with a MMC Representative present.
- 6.7.8 All access to the construction site is through defined access roads and all personnel, contractors, deliveries, visitors and the like must use only these defined access routes.
- 6.7.9 The contractor shall restrict access to the project area and all unauthorized personnel found in restricted areas of the Plant are removed from the site.
- 6.7.10 The Contractor must provide watchers for activities adjacent to operating plant.
- 6.7.11 Personnel are required to move out of the Construction areas during periods when the Overhead Crane is moving over the area

#### 6.8 Hazardous Materials

- 6.8.1 The Contractor must set out its policy for the use, transportation, handling and storage of fuel and hazardous materials taking into account the legislative requirements. This must be in compliance with Mimosa's policies and procedures.
- 6.8.2 All hazardous chemical substances must be approved by the Mimosa Hazardous Chemical Substances Controller prior to their arrival at Mimosa unless supplied by Mimosa stores.
- 6.8.3 The Contractor must ensure that all hazardous materials and waste products are disposed of in accordance with applicable laws and regulations and any procedures published by the MMC or in the absence of any relevant law, regulation or procedures, in accordance with sound safe practice.
- 6.8.4 No chemical, which is potentially hazardous, is brought onto the Site without the prior acceptance of the MMC or the MMC's nominated Representative.
- 6.8.5 The Contractor must submit to the MMC a Materials Safety Data Sheet (MSDS) for written approval of the chemical by the Hazardous Chemical Substances Controller prior to use at the Site.
- 6.8.6 The Contractor must ensure that all necessary transport, storage and usage precautions are taken and that safety equipment, including antidotes, if necessary, is available on the Site.

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- 6.8.7 Flammable liquids: The contractor must implement and comply with Zimbabwean Legislation regarding use and temporary storage of flammable liquids.
- 6.8.8 Prior to any hazardous substances being brought onto the site or produced on the site, the Contractor must supply the MMC Representative with the following:
- Material Safety Data sheets (MSDS) in accordance with the requirements of Zimbabwean Legislation and/or ISO 14011.
- Proposed arrangements for safe storage
- Purpose for bringing the hazardous substance onto the site
- Proposed methods for handling/usage
- Proposed method of disposal
- Proposed method of transportation
- Risk assessment with specific reference to compatibility with other chemicals
  - 6.8.9 The information is to be provided at least a week prior to the expected commencement on site.
  - 6.8.10 The MMC Representative must only approve the use of any hazardous substance after receiving a copy of the Materials Safety Data Sheet for the substance from the Contractor. Such substances are not to be brought onto the site until the MMC Representative's approval is received.

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

#### 6.9 Smoking

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

### 6.10Sun Protection

- 6.10.1 The Contractor must ensure that all personnel are protected in sunlight by the use of long sleeve shirts, long trousers; brims to safety helmets.
- 6.10.2 The Contractor must conduct training and awareness sessions with its workforce, advising on the risks of working in the heat and dehydration and the precautions to be taken including an acceptable fluid intake depending on conditions. The Contractor must ensure that adequate water is available to its workforce at all times.

#### 6.11Working Hours

6.11.1 The Contractor is responsible for the administration of the working hours of its employees and subcontractors. Maximum working hours per day and minimum rest times between shifts is specified by law, including the Mining Collective Bargaining Agreement and Mimosa Requirements.

#### 7. Safe Systems of Work

- 7.1 Typical Activities Requiring Standard Operation Procedures (SOPs)
  - 7.1.1 Below are guidelines of typical construction activities for which SOP's are required before starting work on site by the Contractor (To be attached to Risk Assessments)
  - Site establishment

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

## 7.2 PPE

7.2.1.22

7.2.1.23

7.2.1.24

P	<u>PPE</u>	
	7.2.1	The Contractor must provided and ensure usage and compliance with the following minimum PPE requirements for site work:
	7.2.1.1	Approved hard hats and hard hats with fixed side knobs for welding and grinding operations.
	7.2.1.2	Approved and appropriate overalls.
	7.2.1.3	Wearing of impact Safety Spectacles with side shields are compulsory on site and in workshops at all times. Prescription glasses must comply with the same standard or cover impact safety spectacles is worn over them.
	7.2.1.4	Front flip goggles to be used for gas cutting.
	7.2.1.5	Double Eye-Protection
	7.2.1.6	Welding – Impact Spectacles & Welding Hood
	7.2.1.7	Grinding – Impact Spectacles & Full Face Visor
	7.2.1.8	Cutting – Impact Spectacles & Full Face Visor
	7.2.1.9	Reaming – Impact Spectacles & Full Face Visor
	7.2.1.10	Welding – Spats/Apron/Yoke/Respirator (Metal frame) - Knee pads for welders in kneeling positions.
	7.2.1.11	Grinding – Spats and Apron
	7.2.1.12	Gas Cutting - Spats and Apron
	7.2.1.13	Boots / Shoes – "Fram" safety boots or equivalent.
	7.2.1.14	Gumboots – Steel cap toe.
	7.2.1.15	Ear-plugs. Noise zones exceeding 85Db (Including grinding/compacting etc)
	7.2.1.16	Nuisance Dust – Dust Masks – 3M Standard
	7.2.1.17	Grit Blasting – Airline Hood
	7.2.1.18	Spray Painting – Airline Hood (Confined Spaces) /Canister type mask
	7.2.1.19	Applicable Gloves to be worn for all Hand Operations
	7.2.1.20	Termination of cables – glass cutting gloves
	7.2.1.21	Using a Stanley knife - Glass cutting gloves

- 7.2.2 Personnel exposed to noise levels exceeding 85dB (A) for any period of time or where signs indicate hearing protection is required to wear hearing protection.
- 7.2.3 Other personal protection items such as gloves, face shields, leather spats, safety harnesses, aprons or other such items may be specified for use by legislation, the Scope of Work or The MMC Representative. Personal protective equipment must also be worn, if recommended by manufacturers or suppliers of proprietary products or equipment.
- 7.2.4 All personnel engaged in maintenance and operational activities must use the minimum personal protection applicable at the site.
- 7.2.5 Symbolic signs (complying with Zimbabwean Legislation) indicating the use of PPE is placed at entrance to the construction site
- 7.2.6 A dedicated person must:
- 7.2.6.1 Control the issue and replacement of equipment

Welding – Welding gloves etc.

Gas/Argon - Cutting/Welding

Gloves for artisans and helpers

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7.2.6.2 Keep an up-to-date register, with signatures of the recipients, as proof of having been issued with such equipment will be free charge PPE and Related Safety Requirements is free issue by Contractor.

### 7.3 General

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

### 7.4 Working on Live Electrical Equipment / Sub-Station

7.4.1 The Contractor shall not allow any work on live electrical equipment! All electrical equipment must be isolated and locked out and tagged.

## 7.5 Requirements when off-loading Vehicles

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

#### 7.6 Elevated Work

- 7.6.1 The contractor must implement and comply with Zimbabwean Legislation.
- 7.6.2 The Contractor must:
  - Submit a fall protection and rescue plan to the MMC Project Manager for approval, before any elevated work commence
  - Parachute type harness with shock absorber and double lanyard to be provided for all elevated work
- 7.6.3 The Contractor must ensure that:
  - All tools in elevated positions is attached to lanyards and be attached to either the person or structure
  - Equipment in elevated positions are tied back to the structure
  - No loose items in elevated positions. E.g. Bolts and nuts is in pouches, not paper boxes
  - Overhead work allowed only if area below is barricaded in accordance with MMC barricading requirements
  - Competent riggers place lifelines on register and check it daily before use and records findings in the said register

## 7.7 Working at Heights on platforms, scaffolding and in cradles

- 7.7.1 Where personnel are required to work in any area not guarded for fall protection, which is 1.8 metres or more above ground level or platform, floor or surface below, permanent fall protection is utilised by the personnel. Fall protection includes:
  - · Safety harnesses and double lanyards
  - Approved lifelines
  - Other approved means

#### 7.7.2 All harnesses must comply MMC Standards

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

Note: To be implemented in conjunction with the requirements for Elevated Work

#### 7.7.4 Work Platforms

The Contractor must ensure that all working platforms, be they permanent, temporary or portable, 1.8 metres or more in height, is fully decked, including toe boards, and fully hand railed. Where it is not practical to have handrails or there is a need to work outside handrails, the use of an approved safety harness, with lanyard attached to a secure anchorage is required.

### 7.7.5 Suspended Loads

- a. Contractors and their employees must keep out from under suspended loads, including excavators, and must not stand between a load and a solid object where they might be crushed if the load should swing. They must not pass or work under the boom or any crane or excavator.
- b. Contractors and their employees must ensure that crane loads are not carried over the heads of any workmen.
- c. When lifting concrete kibbles or containers with a hinged lifting bail, the crane hook is moused or the load suspended by means of a sling. This is to prevent disengagement of the bail from the hook on occasions when the weight of the kibble is accidentally taken on formwork, etc.
- d. Guide ropes to be used to prevent loads from swinging.

## 7.7.6 Working Overhead

- a. Articles falling from heights can cause serious injuries. Employees working overhead must ensure that materials and tools are properly secured to prevent articles falling.
- b. "MEN WORKING ABOVE" signs are displayed in the appropriate places.
- c. Where there is danger of falling material, fence off the area in danger.

Material must not be thrown from aloft but is lowered in a safe manner - use a securely fixed rope to lower it

### 7.7.7 Suspended scaffold platform

Suspended platforms may only be used on site with prior written approval from the MMC Site Supervisor.

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

#### 7.7.8 Crane Cradle – (Man Cages)

All mancages (boswain chairs) must be approved by Mimosa who will organize for approval
from the Inspector of Mines – engineering. For persons to be on or suspended from the hook of
any crane. Only approved cradle may be used and the Contractor must strictly comply with
written procedures for their use.

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- Personnel in the cradle must have their feet on the floor at all times, and remain within the cradle.
- Each employee within the cradle must wear approved safety harnesses and attached by a lifeline/sling to an anchorage point, which does not form part of the cradle.
- Appropriate means of communication is provided for people in the cradle.
- A tagline is used to stabilise the cradle.
- Each cage is fitted with an information plate to indicate the maximum weight and number of persons to be lifted.
- Cradles and cranes to be used, is inspected every time before use and the findings recorded.
- Copy of welding x-rays and approved engineering drawing to be kept on site.

#### 7.7.9 Scaffolding

- Scaffolding may only be erected, dismantled and altered under the supervision of the Contractors competent appointed person (Approved training certificate to be submitted).
- Guard rails and toe boards is provided on all outer edges and ends of all scaffolding where a person or an object can fall a distance of 1.5 metres or more.
- Ladders to be staggered every 3.0m inside scaffold frame with safe landing platform and a trap
  door fitted on the working platform.
- A Tagging scaffolding management system is used by the Contractor to ensure that scaffolding erected on Site complies with the provisions of Legal and MMC rules.
- Contractors' competent appointed scaffold inspectors (Training certificate to be submitted), must carry out inspections of their scaffolding whenever the scaffolding has been modified, damaged or altered in any manner or form, and otherwise at least every 7 days during the period that the scaffolding is on site and after inclement weather, to be captured on register and the tag.
- The MMC Representative must carry out random compliance audits. Such activities must in no way relieve the Contractor of his responsibility for ensuring that his scaffolding is safe for use.
- Contractors must use MMC approved tags

Note: Employees must be wearing a full body harness attached to an anchor point at all times when conducting elevated work.

#### 7.8 Barricading requirements

#### 7.8.1 The Contractor must ensure that:

- a. All openings and edges are barricaded with solid barricading to withstand an impact of at least 100kg
- b. Only solid barricading covered with Orange "Snow Netting" and or MMC approved equivalent barricading is allowed to be used as barricade
- Solid barriers to prevent persons falling into them must protect openings in floors, stairwells, staircases, open-sided buildings and any structure in the course of erection, where dangerous openings exist
- d. Contractors must pre-plan the delivery of floor grating, stair treads, landings and handrails to ensure safe access and protection for persons working on structures
- e. Barricading is tagged, placed on register, maintained and inspected daily The owner of the barricade's name and mobile number must appear on the tag
- f. All handrails and fencing must comply with MMC Standards. They is provided around all holes or openings to prevent any person being injured as a result of a fall. A Solid framework with Plastic Barricading Netting attached to it is required.
- g. Where it is impracticable to provide fixed guard railing, effective removable barriers is provided at all unguarded openings in guard railing or floors, and is maintained in position at all times until the hazard no longer applies.

#### Note: Danger tape must not be accepted as barricading! (chevron tape)

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#### 7.9 Working in Existing Operations

- 7.9.1 Work carried out such that no interference is caused to other construction work being carried out on the Site and no claims for delays are brought about by the nature of the work is approved by MMC Project Manager.
- 7.9.2 Any work which requires section of the Plant to be taken out of operation with resultant interruption to production and/or other construction activities is carried out in the absolute minimum of time and be on the basis of the Contractor working around the clock (within legal parameters) for the duration of such work. The times when work of this nature can be carried out is as arranged with the MMC Representative.

#### 7.10 Alterations to Existing Facilities

- 7.10.1 All necessary alterations to existing details and connections between new and existing details is carried out by the Contractor, including the making good of existing details on the completion of the work.
- 7.10.2 Where openings are left, due to the removal of access platforms, hand rails, or steel work or where new details have not been installed, the Contractor must fabricate and install temporary solid handrails until the permanent structure is erected.
- 7.10.3 All temporary connections and the like is carried out in conformance with all regulations to ensure safe operation and passageway for all personnel.

#### 7.11Commissioning of New Installation

7.11.1 Notice boards are erected clearly stating which items of plant have been made 'LIVE'. The information on these notice boards is for general guidance to persons working about the area and warns of increased hazards. As soon as any item of plant is notified as being 'LIVE' commissioning procedures must apply.

#### 7.12Protection of Equipment

- 7.12.1 The Contractor is responsible for covering up any equipment placed in danger of damage from his operation, for example cables or other combustible equipment, with a flame-proof material before Oxy-cutting, grinding and welding.
- 7.12.2 The Contractor must ensure that all equipment is properly protected against damage or deterioration during all phases of construction, in accordance with equipment suppliers' recommendations.

#### 7.13Permit to Work

- 7.13.1 The Contractor must obtain a permit from the permit control room/Client and necessary test done like testing for gases and vapour presence, etc.
- 7.13.2 The permit must list specific condition and hazards involving the specific task.

#### 7.14Lock-out procedures

- 7.14.1 In operating areas lock out procedures must follow the MMC procedures. The Contractor is to co-ordinate with the MMC Representative.
- 7.14.2 An entirely separate set of procedures cover the requirements for lockout, commissioning, start-up and hand over of the completed works.

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- 7.14.3 A Safety Clearance Certificate is necessary for commissioning of all machinery and equipment, together with a Permit to Work and Lock-out Procedure.
- 7.14.4 To ensure the safety of persons working in operating plant areas, the Contractors' Safety Coordinator is responsible to ensure compliance with:
- Lock-out procedure
- Instructing all workmen concerned in its application and implementation
- Instructing the appointed Contractors Supervisors in the issue of applicable permits
- Daily checking of permits
- Distributing information and communicating any other permit system required, for example, for work to be carried out on HT equipment, roof work, excavation, demolition, hazardous areas etc
- 7.14.5 The Contractor is required, but not limited, to comply with the lockout procedures in the following circumstances:
- Executing tie-ins to existing Operating plant
- Working near live equipment
- Start-up and commissioning of electrical equipment and electrically driven machinery
- Working on live pipelines, confined spaces and hydraulic equipment

#### 7.15 Piling Operations

- 7.15.1 All piling machinery, core/dynamic drilling machinery and a attachments must comply with legal requirements and a pre inspection is done by the Contractors operational manager and it must be reviewed by MMC representative prior commence doing any piling, soil test, dynamic compaction or ground improvement. Each piece of equipment must have a valid operators competency certificate, latest inspection log register a copy steel cables certificate. A copy of risk assessments and safe operating procedures for each specific operations. And prove that every employee have been trained to risk assessment and safe operating procedure. Special care is taken when working in the vicinity of pile driving equipment.
- 7.15.2 The Area must be properly barricaded according to MMC Standards

#### 7.16 Working of Moving Equipment

- 7.16.1 Never work on a crane, conveyor table or other machinery without securing permission.
- 7.16.2 Work must not be started until the Contractors' personnel have placed Danger Tags and control access.

#### 7.17Compressed Air

- 7.17.1 Compressed air must NOT be used for any purpose other than that for which it is provided.
- 7.17.2 Do not use compressed air to remove dust from clothing.
- 7.17.3 NEVER direct a stream of compressed air at your body or that of any other person it may enter the body and cause serious injury or death.
- 7.17.4 Locking wires or other suitable approved devices are to be used to prevent accidental uncoupling of compressed air hoses
- 7.17.5 Do not disconnect air hoses until sure that the supply valve is closed and the pressure in the hose has been released.
- 7.17.6 Hoses to be orderly routed and elevated, if required, to prevent tripping hazards.

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#### 7.18Oxygen, Acetylene and LPG Cylinders

- 7.18.1 Contractors must establish satisfactory storage areas (Fenced, shaded, approved surface and all necessary signs posted) for oxygen, acetylene and LPG. Gas cylinders. Oxygen, acetylene and LPG cylinders is stored in an upright position.
- 7.18.2 When moving cylinders from place to place, keep them from being knocked over or falling. Before moving a cylinder without a suitable truck or trolley, close the cylinder valve and remove the regulator. Only use special approved cylinder crates/cradles. Do not transport cylinders with magnet cranes. Never use cylinders as rollers, even if they are marked 'empty'.
- 7.18.3 Make sure that cylinders do not come in contact with electrical circuits, e.g. welding leads. Never strike an arc on a cylinder.
- 7.18.4 Do not store cylinders in hot places. If possible, do not use cylinders in hot places. Don't let cylinders get hot; avoid standing them in hot sunlight if possible. Before you begin a job in a hot area check to see that your cylinders are protected from overheating. Keep your cylinders far enough away from cutting work to stop sparks or hot slag reaching them. If it is necessary to work where cylinders become hot or warm, move them to a cool area as soon as you finish the job.
- 7.18.5 As with compressed air use oxygen only for the purpose for which it is provided. Do not use oxygen in pneumatic tools or tyres as an explosion may occur.
- 7.18.6 Oxygen cylinders should be stored at least 5m away from other flammable gas cylinders.
- 7.18.7 Flashback arrestors to be fitted on torch and cylinders.
- 7.18.8 Empty cylinders to be marked as such and removed daily to approved storage areas. Cylinders must only be allowed on site in an approved trolley, properly secured and with a 4.5 kg or 9 kg dry powder fire extinguisher attached to the trolley.
- 7.18.9 Storage of Gas Cylinders Storage areas should whenever possible be well clear of buildings 7.18.9.1 7.18.9.2 A protective covering is provided 7.18.9.3 Adequate ventilation is provided Storage areas must be kept free from all combustible materials, no other materials is 7.18.9.4 stored in cylinder enclosure 7.18.9.5 Full cylinders are kept apart from empty cylinders so that it must not be necessary to open valves to check whether cylinders are empty or full. Mark empty cylinders clearly and store in space provided 7.18.9.6 Cylinders must always stand upright, special stands is used for cylinders and the cylinders is chained separately in an upright position Cylinders is stored in rows with aisles in-between for easy removal in event of fire 7.18.9.7 For security and ventilation purposes a wire mesh fence should surround the storage area. 7.18.9.8 Keep the enclosure locked All danger signs is prominently displayed at storage area; e.g.: 7.18.9.9 No Smoking No naked flames
- 7.18.9.10 Adequate fire fighting equipment is available
- 7.18.9.11 Oxygen and acetylene should be stored separately
- 7.18.9.12 The storage should be clearly marked
  - Oxygen Full Oxygen Empty
  - Acetylene Full Acetylene Empty
- Flammable and oxidizing gasses must not be stored together, greases and oils must never 7.18.9.13 be allowed to come in contact with Oxygen
- 7.18.9.14 If electrical lighting is required, it should be of an approved type and comply with SAZ **Electrical Wiring Standards**

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#### 7.19Welding, Cutting, Grinding and Heating

- 7.19.1 Contractors must instruct employees in the safe use of welding equipment. Cutting and welding work is carried out in accordance with legislation.
- 7.19.2 Non-combustible or flameproof shields to protect employees from direct rays and air-borne particles must shield arc welding, cutting and grinding operations.
- 7.19.3 Electrode holders or welding guns is maintained in good order, and when they are to be left unattended, the electrodes is removed and the holders is placed or protected so that they cannot make electrical contact with employees or conducting objects.
- 7.19.4 All arc-welding cables are properly maintained and completely insulated. There is no repairs or splices within 3 metres of the electrode holders, except where splices are insulated equal to the cable. Defective cable is repaired or replaced. The earth cable is connected to the work place.
- 7.19.5 Fuel gas hose and oxygen hose is of an approved type, be easily distinguishable and must not be interchangeable. Hoses are inspected at the beginning of each day and is repaired or replaced if defective.
- 7.19.6 The contractor must obtain hot work permit prior to start hot work
- 7.19.7 The contractor must contain falling sparks and/or Hot cuttings. Fire Blankets and Fire Extinguishers must be kept at hand.
- 7.19.8 Ensure not to carry out any Hot work, Cutting and/or Grinding in the vicinity of Flammable Liquids
- 7.19.9 Protect Rubber lined Vessels / Tanks etc
- 7.19.10 Combustible Floors is wetted down, covered with Damp sand or Fire proof sheets
- 7.19.11 All wall and floor openings covered
- 7.19.12 Containers / Pipes purged of flammable vapours
- 7.19.13 Fire watch is provided
- 7.19.14 Area to be inspected after Hot work has been completed
- 7.19.15 Fire watch to stay in place for at least 30 minutes after operation
- 7.19.16 Warn all Employees working under hot work process
- 7.19.17 Ensure adequate fire extinguishers, where appropriate, Mobile Water supply with Water Spray / Pressure available, at all times during Hot work Operation.
- 7.19.18 Harmful gases are given off when doing certain types of welding work and the Contractor must provide a breathing apparatus when welding, cutting or heating:
- Zinc, lead, cadmium, mercury, or beryllium bearing based or coated materials in enclosed spaces
- Stainless steel with inert-gas equipment
- In confined spaces
- Galvanized steel
- 7.19.19 Where an unusual condition can cause an unsafe accumulation of contaminants proper protective equipment to prevent exposure of personnel is provided.
- 7.19.20 No welding or cutting is undertaken where hot metal or sparks can fall onto walkways, work areas, cable ladders, electrical equipment, etc. Before welding or cutting is started, fire retardant blankets are placed to arrest such hot metal or sparks. Particular attention is taken when working above cables that are not adequately covered.
- 7.19.21 Use an approved type flint gun for lighting of torches. Do not use matches, rope wicks or other smoldering materials.
- 7.19.22 Hoses is deflated before cutting torches are cleaned and nozzles not robbed against gloves
- 7.19.23 During welding operations, the earth lead is to be attached to the work area and never such that the earth is established through equipment bearings or through clearance gaps of any sort.

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- 7.19.24 Welders and other people executing hot work must not wear any jewelry and or carry cigarette lighters on their person.
- 7.19.25 All welding machines are earthed, receive power through an approved earth leakage and fitted with an approved voltage reducer. A certificate must be kept on register.

#### 7.20Recognized Walkways

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

#### 7.21 Explosive powered tools

7.21.1 Explosive powered tools my only be used when prior written permission is granted by the MMC Project Manager.

#### 7.22Electrical Equipment

#### The Contractor must ensure that:

- 7.22.1 All electrical installations carried out on the site are in accordance with legislation. For permanent or temporary installation, as appropriate. In addition, electrical installations must comply with MMC Electrical Standard Specification
- 7.22.2 Connections are not made to any power supply without the prior written approval of the MMC Representative and where isolation is required that an isolation permit has been obtained and the isolation procedure associated to the permit has been followed correctly
- 7.22.3 All electrical installations are inspected by The MMC Electrical Representative (or his nominee) to ensure that the installation complies with the statutory regulations applicable to the site and MMC Safety Regulations
- 7.22.4 All electrical machines and appliances provided by the Contractor for his own use on the site are in a serviceable condition
- 7.22.5 Power tools used on the site are protected by residual current devices approved by MMC and are double insulated
- 7.22.6 All extension cords, portable tools and electrical plant supplied at a voltage above 32 volts are inspected, tested and tagged by a licensed electrician at regular monthly intervals. Details of inspections and tests is kept in logbooks available for inspection by the MMC Representative or any other authorised officer of MMC
- 7.22.7 Where natural lighting is inadequate, artificial lighting is to be provided in all work areas, access ways and for rescue equipment.
- 7.22.8 Portable lights have adequate stability and are fitted with a mechanical guard to protect the lamp
- 7.22.9 Temporary festoon lighting is of the 'double insulated' type and is supported at least 2.5m above the floor, if possible
- 7.22.10 Hand lamps is of the 'all insulated' type
- 7.22.11 All temporary light fittings are supplied from more than one final sub-circuit, with the supply from a residual current device, extra low voltage source or an isolating transformer
- 7.22.12 Any installations deemed unsatisfactory by the MMC Representative should be removed by the Contractor at his expense.
- 7.22.13 The Contractor must obtain approval from the MMC Representative before any of his employees or sub-Contractors commence work within three (3) metres of conductor rails or high tension wires, or where there is a possibility of equipment coming close to and/or

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touching a power source, and must provide suitable protective insulating barriers. For the erection of scaffolding, the distance is five (5) metres.

- 7.22.14 Only authorised persons may enter electrical contactor houses, motor rooms, switch rooms, control rooms or cable ducts. Should the Contractor require entering such places to carry out work, he must first obtain permission from the MMC Representative and obtain a valid permit to work.
- 7.22.15 The Contractors' employees required to enter such electrical spaces "authorised persons", with the names entered in the MMC Authorised Persons Register, after receiving approval from the MMC Electrical Supervisor, or they is accompanied by an authorised person who must supervise the placement of Danger Tags and Out-of-Service Tags, as well as electrical isolation permit.
- 7.22.16 Before commencing work on the site, the Contractor must provide the following information to the MMC Representative:
  - Number of electrical machines and appliances to be placed in service on the site
  - Name plate data of each electrical machine and appliance
  - Approximate total time the machines and appliances is in service to complete the Works
- 7.22.17 The Contractor is responsible for the effective protection of his own electrical equipment from the weather and from possible mechanical damage
- 7.22.18 The Contractor is required to inspect electrical equipment as follows:
  - Supply cabling distribution boards, fixed lighting and portable appliances on a monthly basis
  - Extension leads, welding machines, compressors, pumps and hand portable tools on a weekly basis

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

#### 7.22.19 Formwork and Support Work

The contractor must implement and comply with Zimbabwean Legislation.

#### 7.22.20 Ladders (Portable)

- a. All ladders used on the site is constructed and used in compliance with the Zimbabwean Acts and Regulations.
- b. Ladders, which provide access to a working platform, must extend one meter above the platform where it provides access, and is secured to prevent slipping.
- c. Timber ladders must not be painted other than with clear preserving oils, clear varnishes or clear plastics.
- d. Ladders, which are in a damaged condition, must not be used and is labeled accordingly and removed from the Premises.
- e. All Ladders is numbered, logged in a register, and inspected monthly.
- f. A ladder in use is hold by an assistant and/or properly tied down.

#### 7.22.21 Roofing and Cladding

- A Hazardous work permit must be obtained from MMC for all work on roofs.
- The contractor must provide safe access for gaining access on to the roofs.
- The Contractor must provide ladders, scaffolds, man-cage or, elevated work platforms for this purpose.

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- A life-line, consisting of a steel wire rope the diameter calculated to suit the span and the number of persons attached to it is to be erected on the ridge of the structure, using a mechanical device, e.g. turnbuckle, for tensioning the wire rope. (To be erected and placed on register and checked daily by a competent person.)
- The crew working on the roof is tied with nylon rope to the lifeline via their safety harnesses to allow them freedom of movement for placing the roof sheets.
- No work is permitted during rain or when wind speeds exceed 30 Kph. (This is only a guide it must also depend on Risk Assessment and working conditions).
- The Responsible Person must enforce this with the delegated authority on site.
- Bundles of roof sheeting stacked on the roof must conform to the following:
  - 1. Only sufficient bundles to be stacked on the roof to meet immediate needs other bundles to remain stacked on the ground until required
  - Bundles of sheeting to be secured by means of 20mm steel strapping applied with a strapping tool
  - Securely tied to the rafters so as to prevent sheets being blown from the roof during high winds
  - 4. No material may be stored on the roof over weekends and holiday periods
  - Side and gable cladding to be erected by means of a swing scaffold attached to the roof truss extensions as specified by the manufacturer – no makeshift arrangements is permitted

#### 7.23Pneumatic Tools and Compressed Air

- 7.23.1 Pneumatic tools and compressed air must be approved by MMC Representative prior to use on site.
- 7.23.2 It is illegal for a pneumatic tool to be operated by using a compressed gas cylinder. Pneumatic equipment must only draw supply from mobile air compressors or from compressed air lines installed within the premises after gaining permission from the MMC Representative.
- 7.23.3 When using the interlocking type of connection of an airline, connectors are secured with wire clips through holes provided to prevent accidental disconnection.
- 7.23.4 Compressed air must not be used for general cleaning purposes or be used to blow down dirty clothes on people.
- 7.23.5 Safety chains must be used where a compressed air hose connects to a machine to prevent whip lash in the event of accidental disconnection.

#### 7.24Radio-Active Sources

- 7.24.1 Radio-Active Sources may not be utilised on site without written permission from the Engineer and all statutory requirements is adhered to.
- 7.24.2 Radiation operators must submit proof of certification
- 7.24.3 All X-ray personnel must wear meters and film badges
- 7.24.4 Warning signs and lights to be posted at all X-ray activities
- 7.24.5 Sources is stored according to legal requirements
- 7.24.6 All Contractors is informed of X-ray activities
- 7.24.7 X-ray work may only commence with a valid permit to work. The permit will be valid for one and one section only
- 7.24.8 X-ray areas to be barricaded and flagged with radio-active identification markers as per legal requirements
- 7.24.9 Before commencing with X-rays, the MMC SHE Manager shall be notified

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7.24.10 The contractor must develop an emergency procedure for fire or leak of the x-ray source and train his/her personnel on the same.

#### 7.25Conveyors

- 7.25.1 The Contractor must ensure his employees and those of his Sub-contractors do not attempt to cross conveyors they must use the safe crossover bridges or subways.
- 7.25.2 Riding on conveyor belts is strictly forbidden.
- 7.25.3 Riding On and Operating Equipment

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

#### 7.26Fire and Emergency Equipment (Site)

- 7.26.1 The Contractor must provide and maintain all fire and emergency equipment. The Contractor must ensure all personnel familiarize themselves with locations of fire equipment in the vicinity of their work site. Work areas are clear, at all times, of any material, which could fuel a fire.
- 7.26.2 The Contractor must ensure that a thorough inspection is made of the area at the end of any working period to ensure that no material is left at the work site or any situation left in such a manner that a fire or accident could result (All machines to be turned off at main switches, and cylinders to be close and hoses deflated.)
- 7.26.3 Electric welding, Oxy-welding or cutting, or any other fire hazardous equipment is not to be used inside or adjacent to electrical switch room, control room, cable duct, any electrical equipment, cables, fuel, chemical or oil storage without the permission of the MMC Representative.
- 7.26.4 A fire extinguisher shall be kept on every site where Electric welding, Oxy-welding or cutting is being conducted.
- 7.26.5 The Contractor must supply all fire extinguishers for his work as required on the site during the construction phase. Fire extinguishers are not to be used for any purpose other than their intended use.
- 7.26.6 The Contractor must ensure that his personnel are trained in the use of fire extinguishers.
- 7.26.7 The objective for providing fire extinguishers will be to standardize on the type and make to eliminate confusion during emergencies

#### 7.27Confined Space Work

- 7.27.1 Enclosed space work necessitates a Hazardous Work Permit Confined Space. This may only be obtained from the authorised person nominated in writing and after approval by the MMC Representative.
- 7.27.2 No entry will be allowed into confined spaces unless gas readings have been taken by the MMC ventilation section. The contractor will liaise with the MMC Representative to ensure that the gases are tested
- 7.27.3 Where gases are detected, mechanical ventilation shall be provided and after a lapse of 30 minutes to an hour, fresh measurements conducted.
- 7.27.4 Where gases are continuously or sporadically generated as men are working in confined spaces, mechanical ventilation shall be provided at a rate that ensures the removal of such noxious gases. A continuous gas monitoring devise must be throughout such work.

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- 7.27.5 The responsibility for safe procedure, both at the time of entry and during the entire operation of entering and working in confined spaces, rests with the Contractor. The Contractor shall ensure that adequate steps have been taken to eliminate or control hazards. Before working in an area which contains dust, the area is to be ventilated and hosed down to settle and dampen the dust.
- 7.27.6 The Contractor must provide all necessary equipment to manage confined spaces, including all necessary monitoring and rescue equipment (such as tripods, breathing equipment and the like).
- 7.27.7 The Contractor must ensure all persons working in a confined space or managing entry to a confined space are appropriately trained.
- 7.27.8 Compulsory Continuous monitoring, trained rescue teams, radio communication & adequate ventilation and resuscitation equipment.

#### 7.28Excavations, Trenches and Floor Openings

- 7.28.1 Excavation and trenching work necessitates a Hazardous Work Permit Excavation. This may only be obtained from the authorized person nominated in writing and after approval by the MMC Representative.
- 7.28.2 The Contractor must ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing.
- 7.28.3 All handrails and fencing must comply with MMC guidelines and legal requirements.
- 7.28.4 Barricading is provided around all holes or openings to prevent any person being injured as a result of a fall.
- 7.28.5 Where it is impracticable to provide fixed guard railing, effective removable barriers is provided at all unguarded openings in guard railing or floors, and is maintained in position at all times until the hazard no longer applies.
- 7.28.6 When excavations are necessary across roadways, approval is sought from the MMC Representative. Where necessary, "Detour" notices and detour routes are provided.
- 7.28.7 Personnel must report any unusual conditions that may be found, such as underground power lines, pipe lines, sewers or inconsistent materials, immediately to the MMC Representative and, if a risk to personnel safety is involved, stop all work until approval to continue is granted by the MMC Representative.
- 7.28.8 Safe access and egress to be provided and sides battered or shored to the satisfaction of the MMC Representative.
- 7.28.9 All excavations must be on register and inspected daily before work commences & after inclement weather by the Contractors appointed competent person, declared safe and his findings noted in the said register.

#### 7.28.10 Note: No loose material must be kept within 3m of the excavation edges.

#### 7.29 Abrasive Blasting and Spray Painting

- 7.29.1 The Contractor, prior to performing any shot or abrasive blasting operations on the site, must:
- Obtain written permission from the MMC Representative
- Comply with any direction from the MMC Representative as to the suitability of proposed blasting site, prescribed times of blasting operations, wind conditions or other considerations that the MMC Representative may deem appropriate
- 7.29.2 The Contractor must not commence any spray painting operation on the site without the written approval of the MMC Representative.

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- 7.29.3 The MMC Representative may conduct an Environmental Impact Audit of the Contractors' proposed operation and the Contractor must comply with any direction by the MMC Representative in relation to the Contractors' spray painting operation.
- 7.29.4 Painting work is carried out in such a manner that airborne particles of paint are contained on the immediate work area.
- 7.29.5 Any damage caused by such paint particles to privately owned vehicles parked or passing adjacent to the site is the Contractors' responsibility and all cost involved in repairing and making good such damage is to the Contractors' account.
- 7.29.6 Pressure test certificates, where applicable, shall be produced for every sand blasting pot.

#### 7.30Ventilation

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

#### 7.31Lighting

- 7.31.1 Where natural lighting is inadequate, artificial lighting is provided in all work areas, access ways and for rescue equipment.
- 7.31.2 Portable lights must have adequate stability and be fitted with a mechanical guard to protect the lamp.
- 7.31.3 Temporary festion lighting is of the 'all insulated' type and be supported at least 2.5m above the floor if possible.
- 7.31.4 Hand lamps are of the 'all insulated' type.
- 7.31.5 Illumination checks are to be performed for night time work to check conformance to minimum light requirements.
- 7.31.6 Emergency lighting, when working during night time, for safe evacuation when dark shall be installed according to requirements and shall illuminate during power failures.

#### 7.32Stacking Material

- 7.32.1 Stacking to be neat and safe.
- 7.32.2 Before stacking any material, the Contractor, sub-Contractor or their employees must consult the MMC Representative for allocation of a stacking area.

#### 7.33Manual Handling of Materials

- 7.33.1 Contractors must ensure that no employee is required or permitted to lift or move by hand any heavy object that is likely to cause a risk of injury.
- 7.33.2 Adequate PPE is issued and used if required.

#### 7.34Heat Stress

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

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#### 7.35Explosives

- 7.35.1 Explosives must not be brought onto the site or be used without the express written permission of the MMC Representative.
- 7.35.2 Explosives or detonators must not be stored on the site.
- 7.35.3 The provisions of all relevant Acts & Regulations are strictly observed.

#### 7.36Earthwork Hauling Requirements

7.36.1 PPE requirements during bulk earth work

- Hardhat
- Overall (non supervisory)
- Steel cap Safety Boots/Shoes
- Dust Masks / Respirators (when required)
- Dust goggles
- Reflective Vest
- Hearing protection

#### 7.36.2 Traffic Control

- A Points-man / Controller is placed at all road intersections, with a Stop/Go sign to control traffic
- Ripple Strips is placed at all road intersections and railway crossings
- During night driving, flashing lights is placed at crossings and intersections
- Adherence to all traffic signs is of vital importance
- All Haul Trucks, LDV's and Excavation Equipment is operated with Headlights on at all times
- Following Distances 3 truck lengths is kept between the trucks at all times
- Speed limit on Site is 30 km's per hour
- Reversing of vehicles must only take place under the guidance of a spotter
- Heavy vehicles / Equipment must always have the right of way
- A signal system is in place between driver of haul truck and loader operator
  - ◆ To enter: 1 blow of hooter/horn
  - ♦ To stop: 2 blows of hooter/horn
  - ♦ To pull off: 3 blows of hooter/horn
- No overtaking must take place on site or roads by haul trucks
- In case of a vehicle break-down on a road or haul road
  - The vehicle is removed ASAP
  - Warning signs is placed (during Day-time: Red Triangular)
  - (During Night-time : Flashing Lights)
  - Traffic controller in front and back of vehicle for all loading and offloading activities

7.36.3 L.D.V.'S

LDV means light delivery vehicle

#### All LDV's is fitted with:

- Flashing & Rotating green lights
- Whip aerials (3 metres) with red flags
- No vehicles is parked within 50 (fifty) meters of an on-loading or off-loading point
- Two-man rule is enforced at all times (only driver and one passenger in front of L.D.V.

#### 7.36.4 Haul Roads

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- No pedestrians are allowed on Haul Roads, all employees are transported into site to a shift change area designated for this purpose
- Haul roads are wetted by water cart at regular intervals if and when required
- Any large rocks and or spillages is removed and cleaned from roads immediately
- Ground pollution such as oil, diesel and hydraulic fluid must not be tolerated. If it occurred on the haul road or any other portion of the Site the ground is dug out, back filled and compacted)

#### 7.36.5 Vehicles/Equipment

All vehicles shall be roadworthy at all times.

- 7.36.6 Pre-use check is done against any approved checklist; all faulty items are attended to immediately. In the case of faulty:
- Brakes
- Lights
- Air/Hydraulic System
- Oil Leaks. The Vehicles/Equipment is withdrawn from service for repairs
- Brake testing is done every shift before use (Brake testing method to be submitted)
- No major repairs or services are carried out on Site.
- Vehicles and mobile equipment is equipped with: -
- Fire Extinguisher
- Reflector's/Reflecting Tape
  - o Sides
  - o Front
  - o Back
- Reversing Hooter / warning device

#### 7.36.7 Operator's/Drivers

- A relief driver is available for every 4 dump truck's and Operators/ Drivers is rotated at a 1 (one) hourly basis
- A Supervisor or appointed person must drive around from on-loading to off-loading points and ensure that drivers get out of the vehicle and walk around it for 5 minutes and if required allow the person to relieve himself or to drink water or cold drink which is available on the LDV
- Random alcohol/drug test is done and results to be submitted
- All Drivers/Operators is appointed in writing
- If Driver/Operator does not adhere to rules and regulations his appointment is cancelled and he
  must not be able to carry on with his duty
  - No Driver/Operator is appointed without proof of training, drivers license or letter of competency
  - No training of Drivers/Operators on Site
  - No passengers on dump truck, Loaders or Excavators
  - No eating or drinking allowed while operating equipment
  - ♦ No vehicle is left unattended with engine running or key in ignition
  - ♦ No cellular phones may be used by Drivers during operations

#### 7.37Crane Requirements

- 7.37.1 All Contractors must adhere to the following before any Crane is allowed to operate on Site:
- 7.37.2 No Crane is used at arrival on Site before copies of all documentation have been handed over to the MMC Safety Coordinator and the Crane have been checked by the competent MMC Site Supervisor
- 7.37.3 Crane Test Certificate

The Certificate is no older than 6 (six) months, and must cover the following:

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- Ropes
- Hooks
- Slew Brakes
- Outriggers & Pads
- Boom & Guides
- Anti Two-block Device
- Load Indicating System
- Boom OH &Save Wheels Condition
- Crane Brakes and Air System
- 7.37.4 Copies of all documentation are kept in the Crane at all times.
- 7.37.5 All Cranes is fitted with Safety Devices as per MMC Standards).
- 7.37.6 A Brake or other device capable of holding the maximum mass should the power fail, or which is such that it must automatically prevent the uncontrolled downward movement of the load when the raising effort is interrupted; and
- 7.37.7 A Limiting device which must automatically arrest the driving effort when:
- the Hook or Load attachment point of the Power Driven lifting machine reaches its highest safe position
- in the case of a Winch Operated lifting machine with a lifting capacity of 5000kg or more; the load is greater than the rated mass load of such machine.
- 7.37.8 No user must use or permit any person to use a Jib-Crane with a lifting capacity of 5000kg or more at a minimum Jib radius, unless it is provided with:
- A load indicator that must indicate to the operator of the Jib-Crane the mass of the load being lifted, provided that such a device must not require manual adjustment from the application of the load, to the Jib-Crane, until the release of the load
- A Limiting Device which must automatically arrest the driving effort whenever the load being lifted is greater than the rated mass load of the Jib-Crane
- 7.37.9 The user must ensure that every lifting machine is operated by an Operator specifically trained for a particular type of lifting machine; provided that in case of fork lift trucks with a lifting capacity of 750kg or more, and Jib-Cranes with a lifting capacity of 5000kg or more at minimum Jib-radius; the user must not require or permit a person to operate such lifting machine unless the operator is in possession of a certificate of training, issued by a person or organisation approved for the purpose by the chief inspector.

#### 7.37.10 Mobile Crane near Power Lines

- No mobile cranes are to be used near overhead power lines until the MMC Representative has been notified and provided safe access conditions and a valid permit to work is obtained.
- Mobile cranes are effectively earthed when working in the vicinity of electrical wires.
- Assume that all electrical equipment and wires are live and avoid them.

#### 7.37.11 Usage of Skyjacks & Material Hoist (Builder's Lift)

- No Skyjack is used before the Jack has been inspected and passed by the MMC Site Supervisor
- The Test Certificate, no older than three (6) months is produced
- The Safe Working Load is clearly displayed
- The Operators must make use of Safety belts / Harnesses at all times
- Only trained, competent and appointed persons must operate Skyjacks
- Proof of Training and Training program is submitted
- No person must stand of the Handrails of a Skyjack
- When a Skyjack is not operational, it is stopped, no lower than three (3) meters above ground level. The Operator must make use of a ladder to get in and out of the Skyjack. The ladder is removed to safekeeping when stopped and not in use

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• The Power supply is disconnected when not in use thus preventing unauthorized use

#### 7.37.12 Material Hoists

The contractor must implement and comply with Zimbabwean Legislation.

#### 7.37.13 Water Environments

The contractor must implement and comply with Zimbabwean Legislation.

#### 7.37.14 Motor Fuel and Flammable Liquids

- Contractor's proposals to store fuel on site must have written approval from the MMC Representative. The amount of fuel allowed to be stored must depend on site conditions and Statutory Regulations.
- Storage areas to be provided with a bund wall to contain 110% of the maximum volume of the container. Drip trays of sufficient size to be provided at tap of points.
- Storage tanks are to be clearly marked with a "Flammable Liquid, No Smoking & No naked Flame" signs and be clearly marked to indicate contents of the tank.
- Adequate numbers of dry chemical fire extinguishers, each with a minimum capacity of 4.5kg, is provided, installed and maintained.
- Before a machine is refueled, the motor is stopped. Refueling must take place at designated safe areas and appropriate warning signs installed.

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#### 7.38 Diesel Storage

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

#### 7.39Batch plants

The contractor must implement and comply with Zimbabwean Legislation.

#### 7.40 Fundamental health and safety Checklist

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

- Incident investigation training by Construction Manager and or Safety Officer
- Letter of good standing with the NSSA Workman's Compensation Insurance Fund.
- Public Liability insurance
- Competency training certificates of people to execute the job
- Method statements for work to be conducted
- A Baseline Risk Assessment
- Risk Assessments for every job
- A Construction plan detailing each activity per job
- Signed legal appointments as required by legislation
- Contractors' Safety Officer to be interviewed and approved by the MMC Health & Safety Programme Manager
- All equipment to be on a current register, backed up by relevant test certificates
- A Medical fitness certificate for each employee
- Health and Safety Management Plan

#### 7.41Termination and Suspension for Breach of Health and Safety Conditions

The MMC and the Contractor agree that the provisions of this Clause are of the utmost importance, and any relevant violation of them is considered to be a material and substantial breach of this Contract.

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

If the Contractor fails to take the necessary steps to cure that breach or violation promptly or to otherwise comply with this Clause, the MMC may exercise its rights of termination according to the default provisions of this Contract.

Should the MMC or the MMC's nominated Representative observe an unsafe act or become aware of a planned unsafe act, the MMC or the MMC's nominated Representative may direct the Contractor to cease, or not to proceed with, the unsafe work. The Contractor must, at the Contractor's own cost and risk, modify its Method of Work in order to work safely.

#### 7.42Safety Conflict

Where any conflict exists between the requirements of this Annexure, the Site Rules or Statutory Requirements/Regulations the higher standard must apply unless such conflict is brought to the attention of the MMC or the MMC's nominated Representative and a direction provided. The Contractor is deemed to have allowed for the higher standard.

The Contractor is legally responsible for ensuring that he conforms to all applicable aspects of the Zimbabwean Legislation and other relevant Acts and Regulations. If in dispute with client specification and or foreign legislation, the most stringent requirement must apply for all MMC controlled project/ sites.

#### 7.43Annexures

Annexure 1 - Risk assessment Form

Annexure 2 – Standard Operation Procedure Form

Annexure 3 - Method Statement Form

Annexure 4 - Planned Job Observation

Annexure 5 - Contractor Safety Questionnaire

Annexure 6 - Incident Reporting Form

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# <u>Annexure 1 – Risk Assessment Form</u>

REF NO.	TASK	IDENTIFY HAZARD	QUANTIFY	IDENTIFY RISK	SAFETY	НЕАГТН	N/A/E	SEVERITY	FREQUENCY	EXPOSURE	INHERENT RISK	EXISTING CONTROLS	LEGAL REQUIREMENT	SJP	TRAINING	MONITORING & MEASUREMENT REQUIREMENTS	Engineering	Administrative	PPE	Risk Reduction Factor	Residual Risks	Ce (Elir	ditiona ontrols ninatio stitutio

Title : Risk Register Rev: 04 Date : 31.11.09

Ref no.: OHS/FORM 21

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#### **Annexure 2**

### STANDARD OPERATION PROCEDURE

TITLE			
Procedure No.			
Compiled By			
		Reviewed By	
NAME		DESIGNATION	SIGNATURE
	App	proved By: MIMOSA MANAGE	MENT
NAME		DESIGNATION	SIGNATURE
Reason For Revie	ew:		
<u> </u>			

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#### 1. Purpose

State the intention of the procedure.

e.g "to ensure that explosives are transported safely from the explosives magazine to the working section."

#### 2. Scope

State the applicability of the procedure

e.g. "this procedure applies to transportation of explosives from surface to underground magazine workings of Mimosa Mine.

#### 3. Definitions

Include pertinent definitions of words and abbreviations or acronyms synonymous with the task *e.g* "  $MBL = Mine\ Blasting\ Licence"$  " $OEM = Original\ Equipment\ Manufacturer$ 

#### 4. Reference (Legal & Technical)

e.g Statutory Instrument 57 sec 1, Zimbabwe Government Policy On Environmental Impact Assessment 2007", "OEM Maintenance Manual"

Procedure	Form / Records	Responsible Person/s
5. Person Job Specification		
The requirements of the person		
e.g Certified class II fitter, shafts timber man, MBL Holder, etc		
6. Tools, Equipment & PPE Requirements e.g "hammer, spoon, mop, tourqe wrench" PPE: Dust mask, harness, leather apron.		
7. Maintenance & care of equipment e.g " tools shall be cleaning after the job prior to storage" "hoist shall be inspected by rigger every quarter"		
8. Special precautions Include any special prohibitions here e.g "Check with surface for presence of storm first before connecting charges", "Do not stand under hang up", "do not enter mills without authorized hazardous work permit"		
9. Procedure List the step by step process of doing the task. This should enable a person who has never done the task to do it just by reading this section.		

#### 10. RECORDS

In implementing this procedure, the following records are generated and kept:

		No.		No. What Record				Wher	e Kept	Retention	on (yr)	Disposa	Method
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Anne	exure 3
MET	HOD STATEMENT
	<u>DATE:</u>
WOR	K TO BE DONE :
	EED STEPS TO BE FOLLOWED IN DOING THE TASK/JOB
1.	
2. 3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
HAZA	ARDS IDENTIFICATION (Attach relevant risk assessment)
4	
1.	
2. 3.	
4.	
5.	
6.	
7.	
	RONMENTAL ASPECTS (Attach relevant aspect and impacts
<u>ident</u>	ification)
1.	
2.	
3	
4 5	
5	
6	

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### **Planned Job Observation**

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# Annexure 5 OCCUPATIONAL HEALTH AND SAFETY PERFORMANCE QUESTIONNAIRE

#### 4 Preamble

This information is to be used to determine the safety record of the contractor.

Main contractors must ensure compliance by their sub-contractors.

Information provided in the schedule does not relieve the contractor from complying with the obligations imposed by the safety requirements of the contract.

The company and company's representative consider the safe completion of this Project to be of principal importance and the assessment of each contractor's safety performance will be crucial in the final selection process. A poor safety record will be sufficient to preclude any prospective contractor from the opportunity to tender.

#### a. QUESTIONNAIRE

YES/NO Does your company have a Safety, Health & Environmental (SHE) policy? If YES, 1. please provide a copy. YES/NO 2. How is this SHE policy communicated to employees?..... 3. Does your company have a recognized SHE management system? If YES, YES/NO please provide an overview. 4. How and when do the MD and the executive management actively participate in SHE YES/NO matters on site? Please provide an overview..... 5. Does senior management participate in the company's incident investigation procedure? YES/NO If YES, please provide evidence. Does your company keep records for the measurement of SHE performance? 6. If YES, what indicators are used for this performance measurement? YES/NO Please provide copies of the SHE incident register (synopsis) for the past 12-

> Provide the number of employees per month as well as the number of manhours worked per month for the last 12 months. (Refer Annexure B).

7. Does your company set SHE targets and objectives? If so, what are they for the current year and how do they compare to the previous year.

month period. (Refer Annexure A).

YES/NO

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					1/	TIME	JSA IVI.	INING	-(Pvt) Ltd	ANY	
8.	provid	de a copy of	stem been a the latest vestitute (Subi	alid asses	ssment/au					YES/NO	<u> </u>
9.		•	any employ a n a detailed		•		If YES, to	whom do	es he/she	YES/N	0
10.	your a	your compa area of capa ories.	any carry ou ability? If Y		for person se attach th					YES/N	<u></u>
11.	Does	your compa	any have full	y trained	first aid en	nployees o	on each si	te?		YES/NO	 ጋ
12.	Does	your compa	any have a f	ully equip	ped 'first a	id room' o	n each site	e?		YES/NO	)
13.	•		e SHE Perfe		of any pote	ential sub-	contractor	? If YES p	orovide a	YES/NO	<u></u>
14.			le and acco t appointme		or SHE on	your cons	truction sit	e? Pleas	e provide	YES/NO	 )
15.		ou have actions of the late	ve safety co st minutes.	mmittees	in place fo	or each pro	oject? If YE	ES, please	e provide	YES/NO	<u></u>
16.			any have a poart and how		procedure	e for safety	/ observat	ion and co	paching? If	YES/N	0
17.		executive n	nanagement ety audits?	t attend he	ealth & sat	ety meetir	ngs and ca	arry out ex	ecutive	YES/N	0
18.			any have a p Risk Asses							YES/N	0
19.			any allow for ors? If YES,						nployees	YES/N	0
20.			ANCE drug a							YES/N	0
	that o	f your sub-c	contractors?								
21.		/ performan	(3) recent since. One of							YES/NO	<u> </u>
22.			e following w	vith regard	to your c	omnany's	current W	orkers		YES/NO	<u> </u>
<i></i> .		ensation Po	•		•		Janone W	0.11.01.0		I L'O/INC	<u></u>
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- Attach a letter of good standing from your insurer......

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Are records of your Workers Compensation premiums over the last 5 years available to Mimosa upon request?

23. Is there a process for training all employees on practical health hazard awareness and control methods for such issues as chemical, ergonomic, blood borne pathogens, and hearing hazards?

YES/NO

24. Is there an accurate list of all chemical substances used by your company and for what percentage of chemicals located on site, and are material safety data available?

YES/NO

- 25. Does your company conduct:
  - a) Annual medical examinations?

YES/NO

b) Entry and exit medical examinations?

YES/NO

26. Does such medical examinations include:

a) Vision?

YES/NO

b) Hearing?

YES/NO

c) Cardiac Function?

YES/NO YES/NO

d) Pulmonary Functions?

YES/NO

e) Biological Monitoring?

f) Other Physical Systems at risk?

YES/NO

27. Was a health risk assessment done to identify and evaluate health risks due to the potential exposure in conducting their work?

YES/NO

28. Is Environmental monitoring conducted in order to establish potential exposure levels?

YES/NO

29. Are accurate records kept of all the above, and are medical records kept under secure control of all medical personnel?

YES/NO

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# b. INCIDENT FREQUENCY RATE REGISTER (SYNOPSIS) - LAST 12 MONTHS

			INC	IDENT	S			
	Fatal	Lost Time	Restricted Work Case	First Aid	Property Damage	Near Miss	Health	Environment
NUMBER								
FREQUENCY/ SEVERITY RATIOS								

#### c. STATISTICS - LAST 12 MONTHS

MONTH	NUMBER OF EMPLOYEES	MAN HOLIDS WORKED
MONTH	NUMBER OF EMPLOYEES	MAN HOURS WORKED

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## **Annexure 6 - Incident Report**

Sample – Cards are obtained from SHE Department.

Minor Accident / In	cident Report
Minor Accidents : First Aid and etum to full duty cases. Proporty and equipment semaga up to \$2000.	Incidents: Near missos and their of company property. Lass of time or equipment,/ materials.
Date of Time of Applied Applied	Accine
Name of Injured	
Job Title	Age
Nature of Injury	
Magne of Figury	
Working Piaco	
Brief Description of Acciling	
Company Property concerned	
Est. Cost of damaga/loss	
Name & Signature of Reporter	
Treatment/Romarks	
Signature Doctor/Nurse	Date
	Dete
LEGISTE: NOS	Daily
I ROUTE: -H.O.S	Date

	Findings/Reme	dial Action		
No.	FINDINGS		Telegraph	
	-			
500				
1	A SECTION OF THE PROPERTY OF THE PARTY OF TH	Accountability	Complet Schoduled	(on Date
No.	REMEDIAL ACTION PLAN	Wenter amount	Schoduled.	ACTUR.
			.,	
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Dear con	tractor						
Letter of	commitme	nt to mimosa m	nining company				
apply to a	all personn	el under conve	d commitment to the following conditions that eyor employ who may be hired by yourself to naintenance tasks during contract period.				
			oly with Mimosa Safety health and mining related regulations				
1.		contract labour curity Authority	should be registered and insured by National				
2.	All accidents shall be reported to the Mimosa SHE representative and shall be investigated to establish basic cause of incident.						
PROJEC	TS ENGIN	IEER					
ACCEPT	ED BY:	NAME					
		SIGNATURE					
		TITLE					

**Annexure 7** 

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