

# MINAS DE BENGA, LDA ("MBL")

TETE, MOZAMBIQUE

Tender No: TE044/2024

Volume 5 of 5

# HEALTH, SAFETY, ENVIRONMENT AND COMMUNITY DOCUMENT

# **FOR**

SUPPLY AND INSTALLATION OF ONE LASER BASED CONVEYOR MOUNTED REAL-TIME ASH & MOISTURE ANALYSERS AT CHPP PLANT – Annexure M

Dated: 22<sup>th</sup> April 2024

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# **Agreement and Indemnity Overview**

A Contractor that commences work at MBL (ICVL) shall comply with all the obligations in terms of Health, Safety, Environmental and Communities legislation and all MBL's HSE requirements become applicable to the Contractor, its employees and representatives and all work being carried out by the Contractor. The Contractor will ensure that Health, Safety, Environment and Communities rules are implemented within its area of responsibility.

TENDER REQUIREMENTS AND WRITTEN AGREEMENT ON SAFETY, OCCUPATIONAL HEALTH, ENVIRONMENTAL AND COMMUNITIES' MANAGEMENT ENTERED INTO AND BETWEEN

(Hereinafter referred to as The Employer
AND
CONTRACTOR

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#### 1. INTRODUCTION

Minas de Benga, Limitada (hereinafter "MBL" or "ICVL") is committed to apply health, safety, environmental and communities' legislation and standards at all its operations. ICVL continually strives towards zero harm to employees and contractors. Contractors are considered part of employees.

The purpose of this agreement is to provide HSE requirements and expectations to be followed and implemented by all contractors and subcontractors performing work at ICVL premises (owned or rented)

#### 2. DEFINITIONS AND INTERPRETATIONS

2.1 In this agreement, the following definitions apply unless the context otherwise requires:

1.1.1	Contractor	means the party bidding in this Tender and if such party
		successfully bids, the Successful Bidder; and all employees,
		servants, sub-contractors and agents of the
		Contractor. A Contractor employee is a person,
		employed by a contracting company or ICVL, who
		conducts any work on or on behalf of ICVL. The
		contractual agreement is for a fixed period depending on
		ICVL's needs.
1.1.2	Sub-Contractor	means any person appointed by the principal contractor

as a sub - contractor in terms of the contract.

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# FOR – 001 TENDER REQUIREMENTS AND WRITTEN AGREEMENT ON HSE MANAGEMENT

1.1.3	Principal Contractor	means an employer, who performs work and is appointed by the client to be in overall control and management or a part of or the whole of a premises/workplace
1.1.4	Contractor's Pack	Set of documents required to ensure that all the legal requirements applicable to all the activities carried out by independent contractors are completed in accordance with all the requirements of ICVL
1.1.5	Contractor Assessment	Contractor Information, ICVL-HSE-DOC-0032 needs to be submitted to identify the HSE Risk Exposure of each Contactor company.
1.1.6	Agreement	means this Agreement, together with any schedules or annexure hereto;
1.1.7	Employer	means Minas de Benga, Limitada
1.1.8	Employer Representative	means the person appointed in terms of Mozambique
1.1.9	ICVL Manager	means the person responsible (or contract owner) for initiating the tender enquiry in order to do work, and will be supervising the contract to its completion
1.1.10	Contractor Manager	means a non-ICVL person legally responsible for the supervision of the contractor employees for the duration of the contract.

# FOR – 001 TENDER REQUIREMENTS AND WRITTEN AGREEMENT ON HSE MANAGEMENT

1.1.11	Competent person	means any person having the knowledge, training, experience and qualifications specific to the work or task being performed, provided that where appropriate
1.1.12	The Premises	Means the premises of the Employer.
1.1.13	Labour Agreements	means legally binding labour agreements for the project or operational phase that must be adhered to at all times. Copies available from the relevant Human Resources (HR) Department.
1.1.14	Premises/ workplace	means the areas where the contractor work is to be executed and shall include but not be limited to offloading, storage, lay down and office areas associated with the contract premises / workplace.
1.1.16	SPI	means a "Significant Incident", being an occurrence, which has the potential of being an incident or accident during which employee/s could be seriously or fatally injured, or are exposed to a health threatening occurrence
1.1.17	AIFR	means "All Injury Frequency Rates" and is calculated as the number of all injuries per 200 000 man-hours worked. (Number of all injuries per period X 200 000) / (Actual hours worked during the same period)
1.1.18	LTI	means "Lost Time Injury". It is any incident which arises out of and in the course of duty resulting in any occupational injury; and giving rise to any related



1.1.19	LTIFR	temporary or permanent disablement as determined by a medical practitioner. The affected person is unable to continue with all of his/her tasks for which he/she was appointed / responsible for and which constitute their normal duties for a certain period.  means "Lost Time Injury Frequency Rate" and is calculated as the number of LTI's per 200 000 man-hours worked. LTIFR = (Number of LTI's per period X 200 000) / (Actual hours worked during the same period)
1.1.20	PPE	means "Personal Protective Equipment"
1.1.21	Applicable Legislation	means any and all laws, statutes, regulations, articles, ordinances, rules, guidelines, policies, notices, orders and directions or other document which may apply to the work or services being provided by the Contractor in which the Employer has given notice of applicability to the
1.1.22	Hazard identification	means the identification and documentation of existing or expected hazards to the health and safety of persons, which are normally associated with the type of work being executed or to be executed.
1.1.23	HIRAC	means "Hazard Identification Risk Assessment and Control"
1.1.24	Emergency Plan	means a writing plan which, on the basis of identified potential incidents at the installation, together with

#### FOR - 001 TENDER REQUIREMENTS AND WRITTEN AGREEMENT ON HSE MANAGEMENT

		their consequences, describes how such incidents and	
		their consequences should be dealt with at premises /	
		workplace.	
1.1.25	PTW		
		means "Permit to Work"	
1.1.26	Method Statement		
		means a document detailing the key activities to be	
		performed in order to reduce as far as reasonably	
		practicable the hazards identified in any risk	
1.1.27	Plant	means buildings, structures, equipment, services,	
		machinery, tools, intellectual property, software,	
		hardware, training material, apparatus, materials and	
		documentation to be provided under the contract other	
		than the principal contractor's equipment.	
2.2 Headings are used for convenience only and do not affect the interpretation of the			

- requires otherwise:
  - 1.2.1 The singular includes the plural and vice versa;
  - 1.2.2 One gender includes the other genders;
  - 1.2.3 If a word or phrase is defined, its other grammatical forms have a corresponding meaning;

Agreement. In the interpretation of this Agreement, the following applies, unless the context

1.2.4 A reference to a person, corporation, trust, partnership, unincorporated body or other entity includes any of them;



- 1.2.5 A reference to a clause or a schedule, unless otherwise stipulated, is a reference to a clause or a schedule to this agreement;
- 1.2.6 A reference to an Agreement or document (including a reference to this agreement) is to the Agreement or document as amended, varied, supplemented, notated, or replaced except to the extent prohibited by this Agreement or that other Agreement or document;
- 1.2.7 A reference to a Party to this Agreement or to a Party to another agreement or document includes the Party or the Party's successors and permitted substitutes or assigns;
- 1.2.8 The agreement contains a summary of HSE standards required to enable the contractor to adequately tender and is not comprehensive additional information is available on request.
- 1.2.9 A reference to legislation or to a provision of legislation includes a modification or re-enactment of it, a legislative provision substituted for it and a regulation or statutory instrument issued under it.

# 3. What you can expect of ICVL

- An organization dedicated to Health, Safety, Environment and Communities
- An HSEC policy to guide employees and contractors
- Regular communication about HSE

#### 4. What ICVL expects of you

- HSEC management systems
- Follow all ICVL procedures and rules
- Come to work fit for work.



- Make sure you can work safely.
- Stop the job if it is unsafe and make it safe before proceeding.
- Look after your workmates.
- Report any injury, illness or incident immediately to your supervisors.
- Be vigilant always and never take a chance.
- Supply PPE to your employees and correct tools for each job.

#### 5. ACCESS REQUIREMENTS AND SECURITY

- 5.1 The Contractor shall only access and exit the premises through designated places.
- 5.2 The Contractor shall ensure that its employees observe the security rules of the Employer at all times and do not allow unauthorized persons onto the premises.
- 5.3 The Contractor shall not enter any unauthorized areas;
- 5.4 No Contractor/contractor employee or sub-contractor will be allowed access to the Mine or will be issued with an access control card, unless the contractor's documents have been completed and the person/s has attended ICVL induction.
- 5.5 It is strictly prohibited and illegal for a Contractor / sub-contractor to use the access card of another employee or ex-employee to allow access for a new or unauthorized employee.
- 5.6 Contractor supervisors must brief their employees / sub-contractors to ensure that employee do not use other's access card to access to any premises.
- 5.7 Private property (i.e. Laptops and computers), which is to enter and leave the premises/ workplace, shall be declared to Security.
- 5.8 All tools, leased or hired plant/equipment to be brought onto or out of premises/ workplace Version 1



shall be declared by the contractor. Such tools and equipment are to be listed and inspected as per contractor owned tools and equipment. Over inspection by ICVL representatives may also be carried out prior to tools, plant or equipment entering the workplace/premises.

- 5.9 Plant/equipment or materials shall be delivered to premises/ workplace with a delivery note using only a prescribed entrance.
- 5.10 ICVL Plant/equipment or materials which are to be removed from premises/ workplace shall be by an authorized gate release form, signed by the Contract Owner.
- 5.11 Contractor supervisors must within 24 hours, report any lost cards, resignations, dismissals to the ICVL Contract Owner and Security Department. The contractor is liable for the cost of a replacement card.
- 5.12 Access is controlled to prevent unauthorized items/goods into the security area e.g. drugs, firearms, explosives etc. ICVL Security has the right to search any person entering or leaving the security area for explosives and mine property.
- 5.13 No photos shall be taken without consent from the ICVL Contract Owner.
- 5.14 The Contractor shall ensure that no visitors of the Contractor or of its Sub-Contractor's shall proceed to enter ICVL's sites or operations unless they have completed all necessary visitor entry requirements and must at all times be accompanied by a person who has completed all necessary general training requirements.
- 5.15 It is the Contractor's responsibility to ensure that the following documents are in place in order access ICVL Operations:
  - Contractors employees Valid Certificate of Fitness issue by ICVL Clinic /Doctor (The examination is performed at the ICVL Clinic or other approved facility)
  - Contractors' employees Valid ICVL induction



- Contractors' employees Valid Access Card issued by the Training Department following Induction
- Contractors Pack Validated by ICVL HSE Department
- Relevant and appropriate PPE is worn
- 5.16 It is the Contractor's responsibility to ensure that employees driving on site have:

PValid ICVI driver's License

Valid Operator's License (where necessary)

#### 6. PRE-QUALIFICATION OF CONTRACTORS

All contractors will be subjected to a pre-qualification process by the Procurement Department, no work will be awarded or performed unless pre-qualification has been passed.

#### 7. CONTRACTORS PACK

- 7.1 To ensure that all work is performed in a safe manner, a Contractors Pack is required for all contractors and subcontractors performing work at ICVL premises
- 7.2 The Contractor will complete the ICVL Contractors Pack based on their exposure risk rating before commencing work. This pack will be reviewed and approved by the HSE Department.
- 7.3 Each sub-contractor is required to submit their own Contractors Pack for approval by the ICVL HSE Department.
- 7.4 Upon approval of the Contractors Pack, the Contractor will be required to present its HSE Systems to ICVL Management/Contract Owner and relevant Team. This session will be used as



an HSE review and alignment of ICVL HSE requirements and Contractors' HSE Systems. A Senior person from the Contractors side must be present.

- 7.5 The Contractor Pack shall contain up-to-date records of the following:
  - Employee engagement forms
  - Proof of inductions, relevant training and skills and licenses
  - · Certificate of fitness
  - Risk assessments for the work to be done
  - Work schedule
  - The contractor's organogram
  - Copies of legal appointments
  - Work Instructions
  - On the job induction register

#### 8. COMPENSATION AND INSURANCE REQUIREMENTS

- 8.1 The Contractor warrants that all its employees as well as the employees of any subcontractor, who may be engaged by it, are covered in terms of insurance for any Occupational Injury, Disease and Illness.
- 8.2 The Contractor further warrants that this cover shall remain in force while any employee is performing work for or on behalf of the employer.
- 8.3 Furthermore, the Contractor warrants that it is in possession of the insurance cover set out below, which shall remain in force whilst it or any of its subcontractor's and/or employees are working for or on behalf of the Employer, or which insurance cover shall remain in force for the duration of its contractual relationship with the Employer, whichever period is the longest:
  - Any other insurance cover that will adequately make provision for any possible losses and/or claims arising from it and/or it's sub-contractors and/or it's employee's acts



and/or omissions on the premises of the Employer.

Medical treatment and evacuation

#### 9. GENERAL PRECAUTIONS

- 9.1 Make enquiries before commencing work on any installation or equipment and find out what permits are needed.
- 9.2 Plan work in advance to avoid hazardous situations.
- 9.3 Issue, and ensure you receive, clear and precise instructions before any work commences.
- 9.4 No work should be considered complete until the work area has been cleaned up.
- 9.5 Regularly inspect and maintain all tools and equipment. Keep them clean and in good conditions at all times.
- 9.6 Always work from a safe place and convenient position, which provides maximum working space and where you cannot slip, trip or stumble and so endanger yourself and others.
- 9.7 Never carry out work, which you are not authorized to do, nor for which you are not competent.
- 9.8 Keep the working place clean and tidy. Do not leave scrap, tools, and equipment that is not being used on the floor. Provide proper storage areas. Grease or oil on the floor must immediately be cleaned up.
- 9.9 Ensure walkways are demarcated and always kept clear.
- 9.10 Each Safety Notice and Sign has been erected with a specific purpose. This is to prevent Version 1



people from being injured. Ensure that all signs are understood and that everyone is to comply with the instructions given on such signs and on no account may any notice or sign be removed or defaced. These signs must adhere to the ICVL specifications.

9.11 No person may operate, drive or use any machine, vehicle or equipment without the necessary license and permit and without the authorization of the responsible Supervisor.

#### 10. WORK STOPPAGE

- 10.1 In the event of a work stoppage based on safety deficiencies, the Contractor shall immediately remove the workforce from the work area and correct the safety deficiencies by allowing only the people in the area that are competent to make the area safe. The Contractor shall ensure no other work is being performed during this time. Should the estimated time from the outset to make the area safe be longer than four hours or where life threatening/imminent danger situations exist, then the area will be barricaded or roped off and a sign placed with the wording "Unsafe Area Authorized Access Only".
- 10.2 Before the workforce is allowed back in the area, the Contractor shall ensure the area is reinspected by Contractor's Safety Representative and field supervisor. The corrective actions taken shall be evaluated.

#### 11. PERSONAL CONDUCT

- 11.1 No person shall bring intoxicating substance or drugs onto the ICVL premises and no person shall be permitted to enter or remain on such premises whilst under the influence of intoxicating substance or drugs.
- 11.2 Any person who fails to obey any instruction given to him in accordance with or for the proper observance of the requirements of the Act and the Employer's safety programme shall have disciplinary action taken against him, which could lead to removal from



premises/ workplace.

- 11.3 No person shall sleep on premises/ workplace.
- 11.4 All assaults shall be reported immediately to the Employer Protection/ Security Services and to the Mozambique Police Services.
- 11.5 All parties involved in the assault shall be suspended from premises/ workplace pending the outcome of the investigation.
- 11.6 Recognized routes to be followed:

Only official roads, walkways and recognized rights-of-way shall be used in the workplace/premises.

When inside buildings, contractor's employees shall keep to the demarcated walkways. Contractors and their employees are not permitted to take short cuts between buildings and process lines to and from the construction premises/ workplace.

- 11.7 Aggressive behavior, shouting and other unnecessary noises likely to cause confusion or excitement are not permitted.
- 11.8 Unsafe conditions or practices that are observed are to be rectified on the spot and serious problems are to be reported immediately to the responsible Supervisor.
- 11.9 All work shall be performed in a careful, diligent and responsible manner.
- 11.10 Interference with PPE, safety devices, warning signs and the like is not permitted.
- 11.11 Disciplinary measures will be taken against people not complying with ICVL's HSE rules and procedures.



#### 12. CO-OPERATION

- 12.1 The Contractor and its employees shall provide full co-operation and information if and when the Employer or its representative inquiries into safety, health and environment and issues concerning the Contractor, to the extent that these are relevant to the work and or the services being undertaken by the Contractor.
- 12.2 The Contractor and its appointees shall make available to the Employer and its representative, on request, all and any documentation, checklists and inspection registers required to be kept by the Contractor in respect of any materials, machinery or equipment.
- 12.3 All incidents and accidents must be reported to ICVL immediately.

#### 13. INTOXICATION AND ADDICATION

- 13.1 No alcohol or other intoxicating substances shall be allowed on the premises. Anyone suspected to be under the influence of alcohol or any other intoxicating substance shall not be allowed on the premises of the Employer, and any person found to be under the influence of alcohol or other intoxicating substance on the premises of the Employer shall be removed immediately.
  - ICVL reserves the right to conduct random alcohol test on all the contractor's employees and sub-contractors.
- 13.2 Any person required to take medication shall notify the supervisor as well as the potential side effects of any medication.

# 14. DUTIES AND RESPONSIBILITIES OF CONTRACTOR

- 14.1 Hazard Identification and Risk Assessments:
  - The Contractor shall carry out appropriate risk assessments depending on the scope of work and the services to be undertaken;
  - The Contractor shall provide the risk assessments conducted to the Employer prior



- to work commencing for the approval, and work may only commence once the risk assessment has been approved by ICVL HSE Department
- The Contractor warrants that it shall familiarize itself with all hazards and risks provided by the Employer and any information which may impact upon the work and/or services to be undertaken
- All risk assessments for or on ICVL Operations shall be completed using the ICVL Risk Matrix and methodology.

# 14.2 Appointments Supervision and Over inspection

- All work performed on the premises of the ICVL must be performed under the close supervision of the Contractor's appointed supervisor who must ensure that employees are to be trained to understand the hazards to be associated with any work that the Contractor performs before any work can be allocated to them.
- Competent appointed persons shall take all reasonably practicable steps to ensure that no unsafe or unhealthy or environmentally detrimental practices are carried out.
- The Contractor shall appoint trained competent employees who shall be trained on all safety, health and environmental requirements pertinent to them or to the work that is to be performed.
- Copies of such appointments will be provided by the Contractor to the Employer before the commencement of any work at the premises.
- The Contractor must supply the Employer with an organization chart describing the relevant responsibility, which organogram must include the names of specific appointees.
- The Contractor is responsible to ensure that all appointments are made by the person
  holding the correct authorization to make any such appointment. Where appointments
  are required to be signed by the Employer representative or the Manager, these must
  be signed prior to work being able to commence.
- Discipline regarding safety, health and environment and the relevant legislation shall be strictly enforced. All employees must be made aware that any breach of the Legislation, Procedures, Work Instructions and Special Instruction which may be issued



from time to time, will result in disciplinary action being brought about.

- It is agreed and understood that in the event of any employee breaching the provisions of the Legislation, Standards, Procedures, Work Instructions and Special Instruction which may be issued from time to time, and upon the request of the Employer, the Contractor shall immediately remove from the premises any of the Contractors Employees who has failed to comply.
- Competent supervisors from the Contractor shall carry out over inspection.
- The contractor's responsible person shall not be absent from premises/ workplace at any time that any work is being carried out by the contractor until he has appointed a competent person to supervise and be responsible for the contract premises/ workplace during his absence.
- If the contractor's responsible person is likely to be absent from premises/ workplace for a period not exceeding three consecutive days, he shall nominate a competent person to replace during his absence and shall inform ICVL Contractor Owner of the identity of the nominated person.

#### 14.3 Appointment of a HSE Representative and HSE Officer

required and agreed to by the Employer.

- Appointment of a HSE representative
   HSE representatives shall be appointed as per the requirements of the Mozambican
   Health and Safety Regulation 61 of 2006 Article 273.
- Appointment of a HSE Officer
   All high risk contractors shall appoint a full- time Health and Safety officer in writing to assist in the control of all health and safety related aspects on premises/workplace. Low risk contractors may have to appoint a Health and Safety Officer if

# 14.4 Work Instructions

All Codes of Practice, Standards, Procedures, Work Instructions and Special Instruction
which may be issued from time to time shall be enforced and all employees shall be
conversant with these procedures.



- The Contractor shall implement and enforce safe work procedures as prescribed by the Employer and it shall ensure that its responsible persons and employees are conversant with the content of these practices, and that they are adhered to. Training or briefings shall be done in all applicable languages.
- Work for which the issue of a permit is required shall not be performed prior to obtaining a duly completed and approved permit.
- The Contractor is required to implement a procedure regarding the withdrawal by employees from a dangerous working place and must ensure that all employees are familiar with the procedure.

#### 14.5 Safety, Health and Environmental Training

- The Contractor shall ensure that all persons engaged must be trained in areas that require specific competence and may not be limited to induction training by the Employer.
- The Contractor should provide proof of training to the Employer.
- The Contractor shall ensure that it is familiar with applicable legislation and that its subcontractors and all persons engaged to perform the duties of the contractor comply with them.
- The Contractor shall ensure that it is familiar with and complies with the ICVL's
  HSE Management system, including the other standards and agreements like the labour
  agreement.
- The Contractor warrants that it will take all reasonable steps to familiarize itself with the applicable legislation of any task.
- The Contractor must ensure that it clearly understands which legislation governs it and the work it has to perform from time to time.

#### 14.6 Health and Safety Meetings

 Daily toolbox talks are required on site and all employees in the work area shall attend. Records of the toolbox meetings and attendance registers must be kept by the Contractor.



- It is the responsibility of the Contractor to meet on a regular basis with its employees to discuss HSE initiatives and performance. Minutes of each meeting shall be taken, signed by all present and copies forwarded to ICVL Contractor Owner. A copy of all minutes of meetings shall be kept in the contractor's HSE file.
- ICVL Monthly Contractor Meetings will be attended by a contractor representative as per notification from the ICVL Contractor Owner or Safety Department.
- Contractor and HSE Representatives will participate in the Safety Committee Meetings.

#### 14.7 ICVL Induction

- There are two types of induction courses to attend:
  - Compulsorily Induction at the Training Centre before entering the premises/ workplace
  - On the job induction. (This must be done by the Contractor)
- Proof of the Induction training shall be located in the Contractors Pack.

#### 14.8 Sunday Work

• Sunday work will be dealt as per Mozambican labour Law

#### 14.9 Transport to and from work

 The Contractor must supply transport to and from site. The transport must comply with the minimum requirements of ICVL Vehicle Standard.

#### 14.10 Meal and drink water

- The Contractor will supply 1 meal during the shift to all employees.
- The contractor will ensure the meal is of good quality and provided in a hygienic manner.
- The contractor will supply to cold potable water during working hours for drinking to the employees

#### 15. SUBCONTRACTORS



- 15.1 The Contractor shall notify the employer of any sub-contractor it may wish to engage to perform work on the Premises.
- 15.2 The Contractor shall ensure that the terms and conditions of this Agreement are extended to any sub-contractor who shall be bound by the terms and conditions contained in this Agreement.
- 15.3 Each Sub Contractor is required to complete a separate ICVL Contractors Pack for approval by the ICVL HSE Departments prior to commencing work.
- 15.4 The Contractor shall remain liable for all acts and omissions of its appointed subcontractors.

#### 16. MEDICAL EXAMINATIONS

- 16.1 The Contractor warrants that it is aware of all risk areas and that its employees have been medically certified by a Medical Practitioner according to the ICVL Minimum Standard of Fitness to Perform Work
- 16.2 The Contractor warrants that no person shall be engaged, to perform any work on the premises of the Employer without having been declared medical fit to perform work on the premises of the Employer.
- 16.3 The Contractor shall ensure that all employees undergo medical examinations and medical surveillance as may be required by the Employer.
- 16.4 The Contractor shall ensure that all employees undergo exit medical examinations before leaving site.

#### 17. HSE AUDITS AND INSPECTIONS



- 17.1 ICVL Contract Owner and ICVL HSE Departments will conduct audits and inspections on a regular frequency on the Contractor Sites. Arrangements will be made with the Contractor.
- 17.2 The Contractor cannot refuse to accommodate ICVL for HSE audits or inspections.
- 17.3 Findings of these inspections or audits will be submitted to the Contractor and the ICVL Contract Manager to rectify any unsafe or unhealthy conditions within an appropriate timeframe.
- 17.4 Contractors are required to conduct in-house inspections and audits; these audit and inspection results must be made available to ICVL Management.

#### 18. SUBMISSION OF HSE INFORMATION

- 18.1 The contractor should submit near miss reports, incident notifications and investigations, monthly hours worked, to HSE department.
- 18.2 All HSE information must be captured and maintained in the ICVL HSE Management system.
- 18.3 Contractor is responsible to submit an updated list of employees on site as well as the hours worked on a monthly basis to ICVL HSE Department.

#### 19. PERSONAL PROTECTIVE EQUIPMENT

19.1 Appropriate PPE shall be issued by the Contractor, at no cost to employees. This will include, but not be limited to, long sleeve shirts and long pants, reflective vests, overalls, hard hats, steel toe capped boots/shoes, appropriate gloves, ear protection, eye protection, water



bottle and wide brims for hard hats and others where needed.

- 19.2 The Contractor shall ensure that PPE is worn by its employees at all times while work is being carried out on the premises of the Employer or while any persons are present in an area which requires PPE to be worn.
- 19.3 Notices/signs/pictograms must be placed at all work places on premises to indicate where specific PPE is required. The contractor's responsible person shall ensure that all contractor employees understand and obey these notices/signs/pictograms.
- 19.4 The Employer will apply the disciplinary code for offences pertaining to PPE usage, which could lead to the contractor's responsible person being removed from the premises/ workplace at Employer's request.

#### **20. SITE ESTABLISHMENT**

- 20.1 Temporary Facility Layout Plan Showing Site Sheds, Offices and Amenities
  - Prior to taking access of the site, the Contractor shall submit a detailed plan of the site
    to the relevant Contract Owner for review, showing location of all buildings, amenities,
    containers etc.
  - Written approval for Temporary Facility Layout Plan shall be obtained from the relevant Contract Owner prior to locating any temporary facilities on the Site.
  - Sheds shall be of sound and neat appearance and shall conform with the requirements of local and statutory authorities and have suitable fire precautions
  - A sign shall be fixed on each shed on site or at each entrance to site offices and yards to clearly display the Contractor's name and relevant telephone number(s).
  - The Contractor shall, as required by statutory regulations, provide and maintain adequate amenities.
  - The Contractor shall ensure that the allocated amenity area is maintained in a sanitary and tidy manner to the satisfaction of the Contract Owner.



- All temporary facilities shall be properly connected to the electrical, water, sewerage, telephone, etc., services to the satisfaction of the local statutory authorities.
- 20.2 The Contract Owner or HSE Department may conduct inspections on a random basis of the Contractor's sheds / containers erected on the Site. In cases where inadequate care has been paid to cleanliness or safety, the Contract Owner or HSE Department will instruct the Contractor to cease work until their site has been tidied up and made safe. Neither additional cost nor extensions of time to the Contract shall be allowed as a result of such a stoppage.
- 20.3 Before any work shall commence on premises/ workplace the contractor shall attend a site establishment meeting with the Employer's Contract Owner where amongst other the following will be discussed:
  - Pre-work briefing on work to be performed.
  - Contractor's approved Contractors Pack (to be approved prior to the site establishment meeting).
- 20.4 Site Risk Assessments shall be compiled for all tasks before commencement of work on premises /workplace as well as throughout the duration of the contract. Over and above the Risk Assessments, the contractor shall prepare written safe work procedures for all tasks where risks have been identified.

# 20.5 Workplace Requirements

- The contractor shall request the ICVL Contractor Owner in writing for premises/ workplace at least 2 (two) months before the requirements thereof. The request shall clearly state the services and floor area required.
- Should the Contactor require telephone and/orfax lines he shall make the necessary arrangements with local authorities on his own costs.
- Should the Contractor be on premises/ workplace for a period exceeding 5 working days, the Contractor shall erect a notice board displaying the following:



- Name of the main contracting company;
- Project description;
- Name and telephone number of the appointed responsible person;
- Name and telephone number of the appointed first-aider;
- Telephone number of the ICVL Safety Department; and
- Telephone number of the Medical Station and ambulance point.
- Flammable materials shall be stored separately as per site requirements.
- Adequate firefighting equipment shall be available.
- The Contractor shall be responsible for taking all necessary precautions to safeguard his premises/ workplace from theft and damage.
- The cost of ablution facilities, offices and mess rooms required by the Contractor, shall be for the Contractor's account.
- The Contractor shall operate in accordance with the ICVL Environmental
   Management System requirements.
- 20.6 The Contractor shall keep the premises/ workplace clean and tidy for the duration of the contract.
- 20.7 At the end of the contract the Contractor shall clear the premises/ workplace of all buildings, latrines, concrete slabs, cables, water pipes, sewers, fences, name boards and rubbish which were the result of his occupation and rehabilitate the premises/ workplace to the satisfaction of the Employer.
- 20.8 All waste disposals shall be recorded by the Contractor and the information will be submitted to the ICVL Environmental Department on a monthly basis. All waste must be disposed of in an approved waste disposal facility, licensed to receive the type of materials. Records of safe disposal must be available for example, safe disposal certificate.

#### 21. HEAT STRESS MANAGEMENT



- 21.1 The ICVL Heat Stress Programme will be adopted and implemented by contractors on site.
- 21.2 Security guards will be provided with suitable cover against the sun or other weather conditions.
- 21.3 Cold water and a shade area will be provided on site and electrolytes will be handed out to employees on a regular basis as required by the Heat Stress Management Plan.
- 21.4 Wide Brims for Hard Hats and long sleeve shirts will be issued as part of PPE.
- 21.5 Flag Poles displaying flags in accordance with the ICVL Heat Stress Programme will be installed on each site so that they are clearly visible during the day.

#### 22. MALARIA MANAGEMENT

22.1 The ICVL Malaria Management Plan will be adopted and implemented by all contractors on site.

#### 23. JOURNEY MANAGEMENT

The ICVL Journey Management Plan will be adopted and implemented by all contractors on site.

# 24. PRECAUTIONS AGAINST FIRE

- 24.1 No open fires are allowed on the project, exploration site or operation without previous consent of the ICVL Contract Owner.
- 24.2 In case of a fire on premises/workplace, it shall be reported immediately to ICVL control Version 1



Room for further emergency response procedures.

24.3 Designated smoking areas are to be used, no smoking in vehicles and buildings.

#### 25. WORKING NEAR WATER

- 25.1 Underwater diving work shall only be carried out on premises/ workplace after a comprehensive risk assessment has been completed and with written permission from the ICVL Contract Owner as well the ICVL HSE Department.
- 25.2 The Contractor shall ensure that no person works alone near rivers, dams and water storage.
- 25.3 The Contractor will never enter, or permit another person to enter water sumps in the pit.
- 25.4 Life-saving equipment must be available at all water or fluid accumulations.

#### 26. ERECTION, TESTING AND COMMISSIONING

- 26.1 Adequate safety precautions shall be taken during the erection, testing and commissioning phases of the contract work to prevent any form of danger or injury to persons (Risk Assessment is to be completed).
- 26.2 These safety precautions shall include the provision of all necessary temporary and permanent safety fences, guards, barriers, warning signs and audible start-up alarm, to prevent the entry of persons into all areas of contract work which may be unsafe whilst testing and commissioning is being performed.

#### 27. DEMOLITION WORK

27.1 No demolition work shall be carried out on premises/ workplace unless the Contractor's

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responsible person has received written permission from the ICVL Contract Owner. This permission shall confirm the specific plant/equipment/building to be demolished, the date and time at which the demolition work may commence and the expected period during which the work may be executed.

#### 28. RADIATION SOURCES

- 28.1 No X-ray sources, radioactive isotopes and laser devices of classes 3b and 4 shall be brought onto premises/ workplace without permission in writing from ICVL Contract Owner as well as the ICVL HSE Department.
- 28.2 The application shall be addressed to the ICVL Contract Owner and shall state the purpose of the said equipment (e.g. whether for non-destructive testing or as part of a machine or instrument) together with particulars regarding type, number, description, how transported and the name and registered number allocated by the Atomic Energy Corporation to the person responsible for the transportation thereof.
- 28.3 Radioactive material brought onto premises/ workplace by the Contractor shall be stored and handled according to the Mozambique Environmental Act as well as Chapter 12, Article 289 of Mozambique Health and Safety Regulation No 61/2006 of December 26.
- 28.4 It should be noted that no plant /equipment containing X-ray sources, radioactive isotopes and/or laser devices shall not be put in operation without obtaining the necessary approval from the ICVL HSE Department.
- 28.5 The Contractor's responsible person shall ensure that all his employees are aware of the notices/signs/pictograms used to indicate areas where radiation is present and that such notices/signs/pictograms are adhered to.

#### 29. RAIL TRACKS AND RAIL TRANSPORT



- 29.1 The Contractor responsible person shall ensure that all legal requirements and HSE requirements as laid down by the Employer relating to rail traffic are strictly adhered to. The premises/ workplace is regarded as a shunting yard with the result that rail traffic has priority at road/rail crossings. Road users shall therefore stop at all road/rail crossings. No rail vehicle (such as a trolley, rail mounted crane, truck or locomotive) of any type shall be operated on any rail track premises/ workplace without approval from the Employer, Rail Transport Department. If approval has been granted for such a vehicle to operate, it shall only operate in the area and under the conditions specified.
- 29.2 No vehicles, materials, structures or work may be placed or performed within 3,5m of the centre line, to either side of any railway track. The vertical clearance shall be at least 4,3m inside buildings and 5,1m outside of any buildings.
- 29.3 No person shall enter, require or permit any other person to enter this rail track clearance area except for the purpose of crossing a rail track at a recognized crossing, unless approval (including the reason for the entry, description of the area and the time permitted), has been obtained from ICVL Contract Owner and the Rail Transport Department. Should any extension of the time allocated be required, approval shall again be obtained.
- 29.4 Where any work, including excavations or earth work, has to be performed anywhere in the vicinity of a rail track, the contractor shall not commence work until approval has been obtained from ICVL Contract Owner and the Rail Transport Department.

# **30. HOUSEKEEPING**

30.1 Contractors will maintain a high level of housekeeping acceptable to the Employer's standards.

#### 31. ISOLATION & LOCKOUT PROCEDURES



- Isolation, lockout should be applied to all work situations identified as hazardous to
  ensure that it is impossible to inadvertently start any system, plant or equipment so
  isolated. This includes mobile equipment and light vehicles.
- Risks must be assessed when isolation & lockouts take place to ensure that effective controls and safe work procedures are in place.
- Isolation must always be carried out on the main supply and not on the control circuit of equipment.
- This must be done by an approved competent person, and everybody working on the system shall have a personal lock, with all required identification markings, affixed.
- Isolation officers shall be appointed as per ICVL requirements.
- On completion of an isolation/lockout, both mechanical and electrical tests are required to ensure that the isolation is effective.
- If work needs to be performed on live equipment, that would normally be isolated and locked-out, it must be done in accordance with the ICVL requirements.
- All employees required to isolate & lockout or who need to work on isolated & lockedout systems is only allowed to do so after receiving appropriate training.

#### 31.1 Permits to Work

- Work that is complex, irregular and requiring specialist input or work on systems
  with stored energy is potentially hazardous. There is a need for such work to be
  assessed and permitted before being started, i.e. pipe work, hot work, working at
  heights work, confined space work, excavation, etc.
- It is imperative to perform a Job Hazard Analysis (JHA) to determine whether a permit is required.
- A Permit to Work:
  - Is not transferable from one Applicant to another;



- Can only be issued by an authorized Person to a qualified Applicant;
- Can cover more than one person under certain conditions;
- Must be reviewed at the end of the authorized Person's shift; and
- Must be available at the place of work;
- Before cancellation of the permit, the applicant must inform the Authorized Person
  that the work is complete. The Authorized Person will then ensure that the area
  is safe before de-isolation of systems will be allowed.
- All Supervisors who are required to either apply for a Permit to Work or who have to issue a Permit to Work, will only allowed to do so after receiving appropriate training.

#### 32. MACHINES, VEHICLES & DRIVING

32.1 Only vehicles with valid permits will be allowed on site. Vehicle permits will be issued by the Employer after an inspection to the vehicle.

#### 32.2 Driver and Vehicle Licensing and Permits

- Only authorized and licensed drivers who hold a valid ICVL Driving Permit may drive
   ICVL vehicles or mobile equipment.
- Drivers of all vehicles and units of mobile equipment operating on the property of ICVL must, in case of:
  - Vehicles: Be holders of appropriate drivers' licenses issued by a recognized authority and successful completion of ICVL driver's module.
  - Mobile Units: Be found competent to operate the particular unit type and a certificate issued to that effect.
- Mobile equipment shall at all times be both roadworthy and in the control of competent persons.
- All mobile equipment, incl. LDV's and cranes, should be inspected and approved for use, by an ICVL responsible person, prior to being used on site.
- Certain areas are restricted due to hazardous conditions and may only be entered



by authorized drivers.

#### 32.3 Driver Responsibilities and Passengers

- The driver and passengers in the cabin are to wear the seat belts provided at all times when the vehicle is moving.
- The vehicle headlights are to be on at all times when the vehicle is moving, anywhere within the ICVL area of responsibility.
- It is the responsibility of all drivers on ICVL property and within the lease area to report any violation of the traffic rules to the HSE Department.
- Passengers are not to be carried on vehicles that are not designed for the purpose (such as forklift trucks, front-end loaders and mobile cranes).
- Seating arrangements and safety belts are required when transporting passengers in the load bin of bakkies with the relevant roll over protection.
- No person may be conveyed on top of any load or together with any load that has not been made secure.
- Getting on or off moving vehicles is strictly prohibited.
- The driver must adhere to the indicated speed limits on all sections of road.
- The driver must assess and apply the safest speed and driving method at all times.

#### 32.4 Machine and Vehicle Standards

- All machines and vehicles must comply with the ICVL minimum requirements, this
  includes but is not limited to:
  - Reverse Hooters Installed;
  - Signage and demarcation as per ICVL standards;
  - Installation of hands-free two-way radio communication in all machines and vehicles;
  - Reverse cameras on relevant mobile equipment;
  - Roll over protection: and
  - Enquire about the full standards when you tender.



#### 32.5 Road Signs

- All road signs located on the property and on access roads shall be obeyed by all road users at all times.
- Reckless and negligent driving on ICVL roads is not permitted.
- Stop signs are located at various points on the ICVL roads, and in all cases STOP shall mean that the vehicle shall come to a STANDSTILL.
- Drivers of vehicles are to comply with any signal given in the interests of safety by any employee or by an authorized person carrying out traffic control duties.

#### 32.6 Rail Tracks

- Extreme caution must be exercised whenever a rail track is to be crossed.
- Tracks may only be crossed at recognized crossings and when it is safe to do so.
- On no account may any person climb between or under linked rail cars.
- No equipment or material shall be placed closer than 2,8 meters from the center of any rail track.

#### 32.7 Heavy Mobile Equipment (HME)

In order to avoid these accidents, the following guidelines must be adhered to:

- Remember that HME always has right of way.
- Drivers of light vehicles and pedestrians must always assume that the HME driver cannot see them.
- Always remain at a distance greater than 50 meters from operating HME) when in a light vehicle and establish positive communication.
- Always remain at a distance greater than 30 meters from operating Heavy Mobile
   Equipment (HME) when on foot and establish positive communication.
- Never attempt to get on or off moving HME.

# 32.8 General

• All loads carried in vehicles shall be within the rated capacity of such a vehicle and must be securely wedged or lashed down.



- No vehicle will be left with the engine running if the driver leaves the vehicle unattended.
- Audible reversing alarm is to be fitted to ensure that people have adequate warning to stand clear.
- Before passing under a power line, the driver of any vehicle must ensure that
  adequate clearance, at least 2m, exists between the vehicle and the line. Should
  any doubt exist, the Main Sub Station should be contacted for guidance.
- Access under vehicles that are only supported by jacks is prohibited. In addition to tresses, suitable and safe chocking arrangements must be in place before moving under such vehicles.
- Where work is being carried out on any road or shoulder, clearly visible red flags
  (day) and yellow warning lamps (night) shall be placed at both ends of the work in
  progress, so as to give adequate warning of any danger. Appropriate warning signs
  shall be placed at the correct distances ahead of the work.
- People working on ICVL roads and access roads shall wear reflective vests, jackets or similar approved garments.
- 32.9 The Employer reserves the right to inspect any equipment, machinery, container, vehicle or person entering and leaving the Premises.
- 32.10 No contractor equipment, machines or mobile machinery, shall be used on the Premises unless prior approval has been obtained by the responsible area Manager.
- 32.11 No use shall be made of any the Employer's machinery, equipment, articles and or substances without written approval by the Employer, or person authorized on behalf of the Employer to provide this approval.
- 32.12 In the event that the permission required in the previous clause is granted, the Contractor shall ensure that only those persons authorized to make use of the machinery, equipment, articles and/or substances have access to them



- 32.13 A current maintenance logbook is required for all vehicles, cranes and large plant equipment, and shall be available for inspection at any time by the relevant ICVL Representative. The logbook shall be located in the cabin of the equipment or vehicle.
- 32.14 The Contractor must ensure that it and all its employees fully understand the lockout procedure for the equipment they have to work on. The Contractor must ensure that no work commences unless the equipment to be worked on has been locked out using the relevant lockout procedure. Lockout procedures are available from the employer representative in charge.

### 33. TRAFFIC MANAGEMENT PLAN

- 33.1 The Contractor shall have a traffic management plan for his area of responsibility, the plan will include:
  - Pedestrian walk ways and designated road crossings
  - Road signs
  - Traffic Flow
  - Designated Parking areas
  - Appropriate speed limits based on risk
  - Off-loading bays/areas
- 33.2 All parking areas will be adequately designed and be fundamentally stable.

### **34. HAZARDOUS SUBSTANCES**

- 34.1 The Contractor should ensure that it has provided the Employer with a list of all hazardous substances intended for use.
- 34.2 Relevant hazardous substance data sheets must remain in the possession of the Contractor, who must ensure that employees and first aiders have been trained in the use



and emergency response requirements of such substance.

- 34.3 The Contractor must ensure that substances are stored and adequately controlled.
- 34.4 In the event that hazardous substances are to be transported on the Premises, the Contractor shall ensure that the relevant legislation is complied with.

# 34.5 Compressed Air and Gasses

- Compressed air hoses or other gas hoses may not be used for dusting down clothing or people;
- Hoses must be attached by means of approved clips;
- Approved cages must be used when lifting cylinders by means of hoists or cranes.
- Any connector or cap that may contain or be restraining a compressible substance must be secured with an appropriate restraining (Anti-Whiplash) safety chain or wire that will prevent the connector or hose flying free and striking someone if inadvertently released.

# 34.6 Compressed Gas Cylinders

- Cylinders containing compressed air or any other gas, whether full or otherwise are to be handled in the correct manner and with care.
- Cylinders being moved from one level to another must be properly secured by means
  of clamps or other safety devices.
- Cylinders (including LP gas and other cylinders having a broad base) are to be secured
  in an upright position when being transported and must be properly secured to avoid
  bumping and rolling.
- Cylinders, whether in use or not, must always be secured in an upright position by means of a chain or other suitable device and must not be left lying around.
- All gas cylinders are to be stored out of the direct rays of the sun and must be kept away from heat or naked flame.
- Cylinders storage place must be properly labeled



# 34.7 Oxygen

- Oxygen is piped into certain plants and supervisors are to ensure that all personnel are aware of the hazards and special precautions concerning work on or near to oxygen lines.
- Oil or grease must never be used on any fittings on oxygen lines or regulators.
- OXYGEN IS NOT AIR and may not be used for any other purpose than that for which it
  was intended. Oxygen is very dangerous when compressed, when in contact with oil or
  grease, or if released near a naked flame.

### 34.8 Fire Suppression Systems (CO2) in Computer Rooms, Control Rooms and Substations

- Before work will be allowed in any computer room or control room or substation, the
  necessary permits must be authorized by the relevant Engineer and isolation procedures
  carried out. All personnel who may enter such rooms must understand the emergency
  and evacuation procedures and relevant training must be completed.
- Before entry to, or working in a computer room or control room or substation fitted with an automatic CO2 deluge system, the system operation must be set in Manual Mode.

# 37.9 Abrasive Blasting and Spray Painting

- The Contractor, prior to performing any shot or abrasive blasting operations on the site, shall:
  - Obtain written permission from the relevant ICVL Representative.
  - Consult with the ICVL HSE Representative as to the suitability of proposed blasting site, prescribed times of blasting operations, wind conditions or other considerations.
- The Contractor shall not commence any spray-painting operation on the site without the written approval of the relevant ICVL Representative.
- The ICVL HSE Representative may conduct / request an Environmental Impact Audit of the Contractors' proposed operation and the Contractor shall comply with any direction proposed / recommended.



- Painting work shall be carried out in such a manner that airborne particles of paint are contained on the immediate work area.
- Any damage caused by such paint particles to privately owned vehicles parked or passing
  adjacent to the site shall be the Contractor's responsibility and all cost involved in
  repairing and making good such damage shall be to the Contractor's account.

### **35. CONFINED SPACES**

- 35.1 When working in confined spaces, the relevant Codes of Practice and Standard Operating Procedures must be followed.
- 35.2 Any tank, pit, sump, pipe, cavity, pontoon or entry into any enclosed restricted area, which may accumulate gas or be deficient in oxygen, or be liable to engulfment, is to be considered a confined space.
- 35.3 No work is allowed inside confined spaces until:
  - The necessary training has been completed
  - An appropriate risk assessment has been done
  - The relevant SOP's have been followed
  - The required permits have been taken out
  - The relevant stand-by arrangements are in place
  - There is adequate ventilation
  - There is continuous monitoring of the air quality in the compartment
  - There is adequate supervision present
  - Adequate rescue arrangements have been made

Note: Petrol, gas and diesel-driven equipment, including pumps, welding and generating sets, is not to be used in confined and inadequately ventilated areas.

### **36. TOOLS, EQUIPMENT & MACHINERY**



# 36.1 Explosive Powered Tools

- Explosive power-operated stud-driving tools and Hilt guns may only be used when authorized by the relevant ICVL Engineering Manager.
- All safety instructions must be adhered to before an explosive powered tool is used.

### 36.2 Hand Tools

- Hand tools must be kept in a good state of repair. Defective tools such as mushroomheaded chisels and split hammer handles, etc. are not to be used.
- Sharp tools must never be carried in pockets.

# 36.3 Welding Machines

 All welding machines used at ICVL should be fitted with appropriate current limiting devices and properly earthed.

## 36.4 Machinery and Conveyors

- Repairing, adjusting, cleaning or lubrication of machinery in motion may only be undertaken if a person has been authorized to do so.
- Machine guarding may not be removed unless a person has been authorized to do so.
- Loose outer clothing shall not be worn by any worker engaged on or in close proximity to moving machinery.
- Long Hair will be tied up or a hair net will be worn by any worker engaged on or in close proximity to moving machinery.

# **37. ELECTRICITY SUPPLY**

- 37.1 The Employer will provide power supply point according to the terms negotiated in each specific contract.
- 37.2 Before setting up his temporary electrical system on premises/workplace, the Contractor shall obtain the Employer's approval for his requirements, from the ICVL Contract Owner.



- 37.3 The Contractor shall provide all cabling and wiring for temporary power and lighting for his own requirements, together with all earth points and earth connections required to eliminate the possibility of danger to personnel from electric shock.
- 37.4 The Contractor shall route the supply cable from the take-over point to the Contractor's premises/ workplace via a reasonably protected route, as agreed with the ICVL Contract Owner, avoiding wherever possible road and rail crossings and flammable material storage facilities and shall terminate at the contractor's main incoming switch.
- 37.5 The Contractor shall obtain approval from ICVL Contract Owner to connect and/or disconnect the supply cable from the take-over point.
- 37.6 The Contractor's main switch shall supply an appropriate number of feeder switches for three phase supply to power tools, etc. These switches may be of the CFS or MCB type, at the discretion of the Contractor, but they shall be adequately rated and have load sensing and tripping/fusing facilities adequate for the equipment to which they are connected. All lighting and single-phase hand tool supplies shall be taken via single-phase or three-phase MCBs and single-phase earth leakage units, manufactured to South African Bureau of Standards (30 mA trip value).
- 37.7 The neutral of the supply system shall not be used for safety earth connection under any circumstances.
- 37.8 The contractor shall adhere to the requirements for the installation of arc flash requirements, wiring standards and the identification labels according to the ICVL performance standard.

### 38. ELECTRICAL APPARATUS



- 38.1 All electrical apparatus will be numbered and registered for inspection and identification purposes.
- 38.2 The control of access to any electrical apparatus shall be by means of color-coded locks.
- 38.3 All electrical apparatus shall be maintained in a safe working condition at all times.

### 39. GAS CUTTING & WELDING

- 39.1 Cutting or welding without a work permit is only permitted in workshops on site. In all other cases, the need for a work permit should be checked with the Supervisor concerned before undertaking cutting and welding outside workshops.
- 39.2 When electric arc welding, the earth lead must be attached directly to the work-piece itself. Under no circumstances will bridges or jumpers across to adjacent steelwork be permitted.
- 39.3 All welding equipment such as leads, electrode holders and clamps must be kept in good condition. Regular open-circuit voltage checks are to be carried out.
- 39.4 The correct precautions are to be observed when welding inside closed vessels, especially in wet conditions.
- 39.5 When welding, a welder must wear a welder's helmet, spats, welding gloves, welding apron and full-length overalls.
- 39.6 Where there is the chance of persons in the vicinity being affected by welding rays, warning signs are to be displayed and, if practical, welding curtains should be utilized.
- 39.7 All welding machines used at ICVL are to be of an approved type, which reduces the Version 1



voltage to less than 35 volts within 1 second of the interruption of welding.

- 39.8 Prior to oxy-acetylene cutting and welding taking place, the worker concerned must ensure that the correct flashback arrestors are fitted to both the torch and gauge connections.
- 39.9 Oxygen and acetylene cylinders must always be individually chained and stored in an upright position.

### **40. LIFTING & RIGGING**

### 40.1 Cranes and Hoists

- Crane drivers shall undergo regular medical examinations.
- Should a crane driver be suffering from any disorder or emotional strain (even of a temporary nature), which might make operation of the crane dangerous, the matter is to be reported immediately to the crane driver's immediate Supervisor.
- Cab and pendant operated cranes of all types are only to be operated by formally trained and authorized personnel.
- Crane drivers may only take signals from the person who is supervising the lift and will act only on clearly visible hand signals in the accepted code.
- The approved lifting capacity of all cranes and hoists must be prominently displayed inside the cab, on or adjacent to the hoist.
- The rated capacity of the crane hoist shall not be exceeded.
- Crane drivers must avoid carrying loads over personnel and must use the warning bell
  or other signal, where provided, to clear persons out of the path of intended travel.
- People should never stand between a suspended crane load and any object onto which they could be pushed by the load.
- No person shall board or leave the cab of a travelling crane until it is stationary at the boarding platform, except in the case of an emergency, when the greatest care shall be exercised to avoid falling, and contact with electrical conductors.



- Climbing along crane rails is prohibited except by authorized competent persons during breakdowns, or inspections and then only if all necessary precautions have been taken and permits issued.
- No crane shall be left unattended by its driver unless the power has been switched off
  by means of the switch provided and the key removed and the crane is properly isolated.
- Crane drivers shall be on the alert for mechanical or electrical deficiencies and shall report any such deficiencies immediately.
- Cranes on which safety devices have become inoperative or which are defective or on which a buffer is missing, must be withdrawn from service until the necessary repairs have been affected.
- Safe working loads, as determined by a competent person, should be noted on all crawl beams.

# 40.2 Rigging

- Only competent riggers shall perform any rigging and lifting operation.
- The maximum permissible working load on any hook, sling, chain or rope used for the lifting of loads shall not be exceeded.
- As far as possible, loads must be carried at waist height. When suspended loads are being moved by mobile cranes, suitable taglines must be attached to the load to prevent the people guiding the load from coming in contact with the load, or being trapped between the load and any other items/projections.

# 40.3 Lifting Equipment

- Any fault on, or damage to lifting equipment must be reported. Such equipment must
  not be used and must be locked out and tagged until it has been repaired. Ropes and
  slings, which have been damaged or exposed to the weather or an acidic atmosphere
  must NOT be used under any circumstances and must be destroyed.
- No person shall attach any rope, sling or chain to any load unless it is so attached:
- As to avoid unnecessary and dangerous stresses;
- That accidental disconnection cannot take place;



 That the load remains secure during lifting or transportation and its stability is maintained.

# 40.4 Jacking Operations

• In all jacking operations, suitable chocks or other appropriate safety devices are to be used as alternate supports under the load.

## 40.5 Hooks, Slings, Chains and Ropes

- A rigger must inspect hooks, slings and chains at monthly intervals and a register is to be kept of these inspections. This equipment will not be used unless this inspection has been done.
- Hooks, slings, chains, ropes or attachments that are defective or damaged in any way
  may not be used. The defective piece of equipment must be taken out of service and a
  report made by the relevant Supervisor.
- ICVL Colour coding must be adopted on site.
- No sling is to be used without a valid test mark.
- Ropes are to be reeled out correctly and kinks are to be removed prior to use.
- Ropes and slings should be suitably protected against damage from sharp edges.
- The mass of any load must be assessed in the appropriate manner before selecting slings and lifting equipment which must have a safety factor of more than 5 times.
- The load to be lifted must be level and stable at all times before, during and after the lift.

# 40.6 Manual Lifting and Handling Heavy Objects

- Inspect the route and remove all tripping hazards.
- Any handling or lifting task that can only be done manually, must be planned and rehearsed before the task is done.
- If more than one person is involved in a task, a communication procedure must be agreed in advance.
- Lowering the load must be done in a controlled manner. Dropping a load is dangerous



and must be avoided.

- No one should ever attempt to lift anything beyond their capacity. If in doubt, get help.
- Where mechanical lifting aids are provided, they should be used.
- Extra care should be taken when lifting awkwardly shaped objects.
- Hand protection and arm protection where appropriate, should always be used, particularly when lifting rough loads, or loads with sharp edges or projections.

### 41. WORKING AT HEIGHT

# 41.1 The following minimum, approved equipment must be provided:

- 1,5T Tirfors, shackles, slings and Crosby clamps for Lifelines. (To be erected by competent Rigger.) / Edge protection / Fall Arrests / Double Lanyards to attach to harness.
- Full body type harness with shock absorber and double lanyards for all elevated work.
   Belt type harness or single lanyard will not be permitted.
- All tools in elevated positions, which are not used while working on a safe work platform, must be attached to lanyards, attached to person or structure or otherwise effectively prevented from falling.
- Equipment which is not protected by a safe work platform, in elevated positions, must be tied back to the structure or secured in such a manner that it does not fall.
- No loose items in elevated positions e.g. Bolts, nuts, welding rods and stubs to be kept in tins or similar robust containers (No paper boxes or plastic bags will be allowed) even if used from a safe work platform.
- Competent riggers to place lifelines on register and check it every time before use and on scheduled intervals if not in use and findings recorded in the register.
- Person must attach safety harness above his head to minimize falling distance.

### 41.2 Scaffolds

Scaffolding must be constructed and erected according to ICVL and legal standards,



- only competent persons may be appointed to supervise and control the erecting and dismantling of scaffolding.
- No work will be permitted on scaffolding until the competent scaffolding Supervisor concerned has inspected and approved it, and only once accepted by the supervisor that is going to use the scaffolding.
- A tag indicating that scaffolding is safe to use, must be attached to each scaffold by the specialist scaffold and should the scaffold become unsafe to use, the tag must be removed. Do not climb on scaffolding that is not suitably tagged.
- All workers that work at heights must be trainer and proofed competent to do so.

### 41.3 Ladders

- All ladders must be fitted with non-skid safety pads. Before mounting a ladder, it must be secured either by lashing at the top to a permanent fixture, or by having it supported by a fellow worker.
- Extension sections of ladders must be securely locked in position before use.
- The use of boxes, drums, etc. as an alternative to ladders, scaffolds, working platforms or access platforms is not permitted.
- Only wooden ladders or ladders constructed of non-conductive material may be used when working on live electrical apparatus.

# 41.4 Dropping of Materials

- No materials of any kind may be thrown or dropped from an elevated position.
- When work is in progress overhead, the area below the place of work shall, where
  possible, be suitably roped off and a warning notice displayed.
- Where necessary, safety nets will be installed to prevent the dropping of material to lower levels.
- Equipment or material shall be properly secured to ensure it cannot fall on people below. Tools should be attached to hands by a lanyard or carried in specially designed tool carriers.



### 42. EXCAVATIONS

- 42.1 No work will be allowed in excavations unless the relevant procedures concerning shoring, bracing and removal of spoil in that excavation are adhered to. If in doubt refer to your immediate supervisor before commencing work.
- 42.2 No person may enter an excavation, which is being dug by mechanical means when the mechanical excavator is at work.
- 42.3 No excavation in a roadway, railway, aisle or path may be left unsupervised without an adequate warning and barricade.
- 42.4 Barricading must always be constructed of substantial material. Danger/Hazard tape by itself is inadequate.

### 43. ENVIRONMENT COMMITMENT AND POLICY

- 43.1 The Contractor shall take appropriate actions to protect air, water, animal and plant life from adverse effects of the Contractor's activities, and to minimize any nuisance which may arise from such constructions or operations, in accordance with all applicable laws and, where applicable, the Environmental Requirements.
- 43.2 The Contractor shall ensure that the Contractor's and Sub-Contractor's personnel are briefed and understand ICVL's policy on environmental protection, and that such personnel shall act accordingly.
- 43.3 The Contractor shall adhere to existing statutory regulations concerning environmental damage.
- 43.4 The Contractor acknowledges its environmental obligations in relation to the construction Version 1



and operation under all Environmental Requirements and warrants that the Contract Price incorporates all costs and expenses associated with complying with such obligations.

43.5 The Contractor shall ensure that the Works on the Site are left in a condition that complies with all environmental laws, requirements of any authorities having jurisdiction in relation to matters concerning the environment or the Site, and the Environmental Requirements.

### 44. WASTE DISPOSAL AND SPILLAGE

- 44.1 The Contractor shall take precautions to prevent contamination of the environment from their activities.
- 44.2 The Contractor shall be responsible for ensuring that the handling, storage, treatment, transportation, and disposal of waste is executed in an environmentally acceptable manner and is in accordance with all applicable legislation and any additional ICVL requirements
- 44.3 The Contractor shall be responsible for obtaining, preparing and maintaining waste permits and manifests for transporting and disposing of wastes generated by the Contractor. The contractor must keep records of monthly waste quantities produced (by type) and submit monthly to ICVL HSE Department.
- 44.4 The Contractor shall be responsible for providing and maintaining spill control and cleanup equipment according to legal and best environmental practices requirements.

# **45. NOISE AND VIBRATION**

45.1 The Contractor shall conform to the provisions of the statutory regulations of the Government Instrumentalities relating to noise control during construction, with particular reference to piling, drilling, blasting, abrasive blasting, excavation and earth moving plant, compressors and pumps, fabrication areas, workshops, concrete aggregate batching and



mixing plants and all other construction equipment, including vehicles.

- 45.2 The Contractor shall comply with all provisions of the Specification relating to noise and vibration control when carrying out activities that cause noise and vibration, including compaction and blasting.
- 45.3 The Contractor shall take all reasonable steps, to the satisfaction of ICVL's Representative, to minimize vibration, shock and noise arising from activities.

### **46. AIR POLLUTION**

- 46.1 The Contractor shall comply with the statutory requirements of Government and ICVL Instrumentalities concerning air pollution.
- 46.2 The Contractor shall ensure that all construction facilities erected on the Site of the Works by the Contractor or any Sub-Contractors are designed and operated to prevent the emission of smoke, dust, and other toxic substances into the atmosphere.
- 46.3 The Contractor shall take all proper precautions to minimize any nuisance arising from dust caused by construction activities. Such precautions may include, but shall not be limited to, spraying roads with water or other suitable liquids and the removal of mud or water materials spilt onto roads by construction equipment.

### **47. SPILLS AND DISCHARGES**

- 47.1 The Contractor shall take all the proper precautions to minimize the impact of discharge of water containing any matter in solution or suspension which may damage the environment, including, without limitation, visible suspended matter into waterways and adjacent areas.
- 47.2 The Contractor shall take all precautions necessary to prevent the discharge into Version 1



waterways of any oils or similar materials or of any foaming or non-biodegradable detergents. All plant and equipment maintenance must be carried out in a suitably contained area, the draining from which shall be provided with approved oil separation traps before discharge into any waterway. The Contractor shall be responsible for regular removal of deleterious matter from such traps and its disposal by approved methods.

- 47.3 All oil or fuel spilt or leaking from any item of plant or equipment shall be cleaned up immediately. If necessary, by excavation and then removed to an approved disposal area. If oils or any materials as a result of the Contractor's failure to comply with the requirements of this Clause contaminate any waterway, the Contractor shall, at the Contractor's expense, comply with all directions given by any relevant Government Instrumentality to clean up the contaminated areas and to prevent any further contamination.
- 47.4 Contractor is financially responsible for contaminated soil management, water treatment and water analysis if needed.

# 48. WASTE MANAGEMENT

- 48.1 The Contractor shall provide sufficient bins for waste disposal and ensure that all such bins are emptied on a regular basis to prevent overfilling. Segregation of waste is encouraged.
- 48.2 Waste Management should be in accordance with ICVL Waste Management Procedure
- 48.3 Only companies legally approved by Government may be used for waste removal and waste disposal certificates must be obtained.
- 48.4 Suitable collection equipment shall be provided for collection of flammable waste and for hazardous waste.



- 48.5 The waste management company shall present proof of the certificate of competency and respective Environmental Management Plan for waste management to ICVL HSE Department.
- 48.6 Monthly information on waste production shall be submitted to ICVL HSE Department.

### 49. INCIDENT REPORTING AND INVESTIGATION

- 49.1 The Contractor is responsible for reporting all accidents, incidents, health threatening occurrences and Significant Potential Incidents (SPIs) to the Employer immediately after the occurrence. The Employer shall further be provided with copies of all written documentation relating to the incident. This will include all environmental incidents and non-conformances as per the ICVL procedures.
- 49.2 The Contractor's responsible person together with the ICVL HSE Department and ICVL Contractor Manager will complete the incidentinvestigation according to ICVL incident reporting and investigation procedure.

## **50. HYGIENE AND EATING FACILITIES**

- 51.1 Toilets must be made available for employees on site. One toilet is for every 25 persons.
- 51.2 The facilities will be kept clean all times.
- 51.3 Adequate facilities for meals should be provided.

# 51. FIRST AID

51.1 In terms of Mozambique Legislation, Article 265 of Regulation 61 of 2006, the Contractor shall ensure the certified first-aiders are allocated to the workplace according to the number of employees.



- 51.2 Proof of the certificate of competency of the first-aider/s shall be kept on premises/ workplace.
- 51.3 Any illness at work must report to their Supervisor who will then refer to ICVL Clinic for further assistance.
- 51.4 The contractor shall have a first-aid box on premises/ workplace at all times with the necessary notices/signs/pictograms indicating the location of the first-aid box as well as the first-aider/s name and telephone number. All machines and light vehicles will have a first aid box installed on the machine. A register of all first aid boxes and monthly inspections will be available to ICVL Management on request.
- 51.5 The contractor's first-aid box shall include an inventory based on risk and shall be maintained in accordance with the inventory. The contractor shall also ensure that all medicine, emergency and first aid equipment is provided as outlined in the Regulation.
- 51.6 When a first aid box is opened it must be reported to the ICVL Safety Department and the contractor's first-aid box must be refilled immediately.

### 52. MEDICAL TREATMENT AND AMBULANCE SERVICE

- 52.1 Should a person sustain an injury on premises/ workplace, the Contractor shall make use of the Medical Station for emergency treatment. The emergency team and casualty personnel will attend to injuries beyond the scope of the first-aider. The contractor, however, shall be responsible for all costs incurred.
- 52.2 If medical evacuation is required the Contractor Company will be responsible for the cost incurred if no health insurance is available.



### 53. EMERGENCY PLAN

53.1 A copy of the Employer's Emergency Preparedness Procedure and Emergency Telephone numbers must be available on the Contractor Site plans/procedures.

53.2 The contractor and the contractor's employees shall comply with ICVL emergency response procedures

**Note**: In the event of an emergency being declared, it is essential that the contractor's employees do not leave the premises/ workplace until they have been checked off the register of the premises they are working in, so as to avoid unnecessary exposure to risk of the emergency situation. Each member of the working party must know the correct egress from their place of work as well as the relevant assembly point.

53.3 The Contractor Company is responsible to ensure emergency drills are conducted in his area of responsibility.

# **54. INDEMNITY BY CONTRACTOR**

- 54.1 The Contractor warrants that it shall not endanger the Safety, Health of the employees or the Environment in any way whilst performing any work on the premises.
- 54.2 The Contractor hereby indemnifies The Employer, it's agents, representatives and employees of all claims or levies of whatsoever nature arising out of loss, damage or injury to persons or property resulting from the carrying out of the contract by the Contractor or any subcontractors, servants or agents save where such loss, damage or injury is caused by any negligent act or omission of The Employer, it's agents, representatives or employees.

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# FOR – 001 TENDER REQUIREMENTS AND WRITTEN AGREEMENT ON HSE MANAGEMENT

NAME OF CONTRACTOR'S MANAGER:	
NAME OF CONTRACTOR'S MANAGER:	
NAME OF CONTRACTOR'S MANAGER:	