



# *MULTIVERSE MINING and EXPLORATION PLC*

## *HEALTH, SAFETY AND ENVIRONMENT POLICY*



# OUR HS&E PHILOSOPHY

***To achieve MULTIVERSE strategic goal of sustainable development, MULTIVERSE strives for clean and safe developments. Our HSE philosophy is hinged on the following cardinal principles:***

- Sound HSE performance is one of the one of the foundations for the company's growth and development.
- Ensuring economic returns, HSE management is also our commitment to social responsibility.
- Put people first and regard employees as our most valuable resource and asset.
- Conduct systematic management and continuous improvement with motto "We can always do it better".
- Promote the "5 Don'ts until Dos' Safety Rules, focus, on details, and manage risks at acceptable levels.
- Manage contractors and share information and experience to achieve Win-Win cooperation.
- Endeavor to use clean & harmless materials and energy, and protect the environment & natural resources.
- Comply with laws, regulations and industrial standards, and strive for HSE excellence.
- HSE performance mirrors the comprehensive quality of the company.



## **THE “5 DON'Ts until Dos” Safety Rules In Workplace**

**Throughout the whole MULTIVERSE, the following**

**“5 Don't s until Dos” safety rules apply to ALL activities:**

- Don't act until safety risks are clearly assessed.
- Don't act until safety measures are fully prepared.
- Don't act until safety tools are ready for the job.
- Don't act until safety conditions are secured.
- Don't act until safety skills are well obtained.



## **10 High Risk Activities**

**MULTIVERSE has identified the following 10 activities as high risk and therefore requiring a high level of HSE consideration and evaluation:**

1. Equipment maintenance operation
2. Electrical operation
3. Hot work
4. Confined space entry operation
5. Excavation/ Shaft operation
6. Lifting operation
7. Working at heights
8. Hazardous/ Explosives materials handling
9. Land transportation
10. Simultaneous operation



## **1. Equipment maintenance operation**

- Risks assessments, maintenance plans and safety measures shall be prepared for on-line equipment maintenance.
- Proper measures shall be taken such as isolation, pressure-releasing and displacement.
- Maintenance workers shall be competent and qualified. The proper tools and equipment shall be supplied to every worker.
- PTW (Permit to Work) must be approved before on-line equipment maintenance.

## **2. Electrical operation**

- Electrical power shall be cut off during all cable and electrical equipment maintenance, and isolation, lockout/tag out and safety caution signs shall be used during all maintenance activities.
- Electrical equipment shall be discharged and disconnected. It is prohibited to touch any high-voltage on-line electrical equipment.
- A specially-assigned, fully qualified person must supervise the maintenance of electrical equipment.
- Power shall not be resumed to the equipment being maintained unless has been confirmed that no one is working on the subject equipment.
- Electricians shall be trained and certified
- Insulation protective articles and tools shall be properly used.



- PTW must be approved before electrical operation.

### **3. Hot work**

- Hot work area shall be isolated from human trafficking area.
- Cleaning and purging with inert gas shall be carried out before hot work on equipment or pipes containing potentially explosive gases.
- Before hot work begins, clean out combustible material around the work area and restrict the spark splash.
- Flammable gas shall be detected on time in the hot work process.
- The fire watcher shall be present at all times and equipped with sufficient firefighting equipment and material for the hot work activities.
- PTW must be approved before hot work.

### **4. Confined space entry operation**

- Before entering a confined space, all affected energy sources shall be isolated, locked out and tagged out. The work of displacing, purging, ventilation, and gas detection for the confined space shall be conducted prior to entering the space.
- Ensure all workers are competent and qualified for their assigned positions.
- The number of people entering the confined space shall be strictly controlled. All persons must wear suitable PPE.
- When workers are inside the confined space, at least one watchman shall be on standby at all times outside the confined space with emergency rescue equipment.
- PTW must be approved before entering the confined space.



## **5. Excavation/ Shaft operation**

- A safety plan shall be prepared for excavating operations such as excavating, tunneling, drilling, piling and blasting in the work area.
- All underground pipes, cables, and other hazards must be verified, marked, and isolated if needed before excavation operation.
- Whenever depth of shaft is over 2 meters, work shall follow the confined space entry procedure in addition to excavation precautions.
- Take measures to control landslide and prevent collapse by systemic supporting, releasing slope and footstep.
- Barricade and clear safety caution signs shall be installed around the excavating operation.
- PTW (Permit to Work) must be approved before excavating/shaft operation.

## **6. Lifting operation**

- Lifting risk assessment shall be prepared before all lifting operations. A work plan shall be prepared for all heavy lifting operations.
- Wire, slings and shackles shall be inspected by competent personnel before a lifting operation takes place.
- Lifting devices and equipment shall be validated by inspection certification by a qualified third party. The safety device of the lifting equipment shall be inspected before a lifting operation and determined to be functioning properly.
- A load shall not overload the SWL (Safe Working Load) of the lifting equipment in either the dynamic and/or static condition.



- A designated safety caution area shall be established around a lifting operation; no one shall be under the lifting load or lifting boom at any time.
- All workers who are involved in a lifting operation shall be trained and certified (licensed) for such work.

## **7. Working at Heights**

- Working at heights over 2 meters with a fall hazard, fall protection equipment must be used
- Qualified full body harness and other fall protection devices shall be provided to all workers working at heights
- Designate and ensure a standby person is in place when working at heights
- Workers must be competent for their assigned positions. People with height restrictions shall not work at heights
- Simultaneous operations for working at heights in vertical directions shall not be carried out unless segregation measures have been taken properly in working area.
- Working at heights is prohibited in the case of bad weather conditions

## **8. Hazardous/Explosive materials handling**

- Clear safety caution signs must be posted in the working area where the hazardous material are used
- Safety equipment and measures , such as ventilation , fire prevention, explosion prevention, toxic prevention, monitoring alarm , lowering of temperature , moisture prevention, lightning-protection, electrostatic prevention and isolation shall be implemented according to the properties of the hazardous materials during production, storage and operation.
- Prevention measures shall be taken to avoid leaking, colliding, dragging and dumping of the hazardous materials during transportation , loading and unloading





- Operators must be trained and mastered in the skill of using suitable PPE

## **9. Land Transportation**

- Regular vehicle testing and checking before driving to ensure a vehicle is in good working condition
- Drivers must be trained and must hold appropriate driving licence to operate a vehicle
- Vehicle occupant limit enforced, never driving with overload vehicle or drive a vehicle over the posted speed limit.
- Safety belt shall be used in all vehicles both the drivers and any other occupants
- Mobile phone or inter communication telephone shall not be used during the driving of a vehicle

## **10. Simultaneous operation**

- In addition to any safety requirements related to special operations, the relevant parties shall be notified of any potential impact caused by a simultaneous operation
- Relevant parties shall conduct an overall safety assessment related to the interaction of simultaneous operations and shall take all recommended effective control measures.
- A coordinator shall be appointed and shall maintain adequate communication during the whole operation.



- Relevant parties shall develop a coordinated emergency plan before simultaneous operation
- Where and when possible, avoid simultaneous operation.

Approved by the Board of Directors this..... day of ..... 2018

Secretary

Director