






**WOC LP & EP Department**

## **WOC HSE Standards Manual**

**DOCUMENT NO: WOC-HSE-ST-0001**

### **Section H007 – Health, Safety and Environment (HSE) Contractual Requirements**

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**HEALTH, SAFETY AND ENVIRONMENT (HSE)  
CONTRACTUAL REQUIREMENTS**

**Waha Oil Company**

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## 1. INTRODUCTION

It is the expectation of Waha Oil Company (WOC) that everyone, employees and contractors alike, shall work in an environment where safety, health and environmental risk is reduced to as low as reasonably practical.

To this end, the safety and health of all personnel must receive full consideration at all times and throughout all phases of any Work that is to be carried out at any WOC locations.

Every effort will be made by WOC to facilitate the safe and efficient performance of the Work. Contractor's cooperation and adherence to the contract is a requirement.

1.1 Contractor, including its sub-contractors, agents, representatives and visitors, while doing Work related to this Contract, shall be governed by the following:


**NO OBLIGATION UNDER THIS CONTRACT SHALL BE SO URGENT OR IMPORTANT THAT THE TIME AND OTHER MEASURES CANNOT BE TAKEN TO DO IT SAFELY.**

1.2 THE BASIC RESPONSIBILITY FOR CONTRACTOR SAFETY AND THE SAFETY OF THEIR PERSONNEL LIES WITH THE CONTRACTOR. Therefore, Contractor shall ensure that it has have a full understanding of the regulations and requirements addressed in this document and of its obligation to deliver incident free Work. Wherever and whenever any such regulations and requirements are imposed on Contractor, they shall also apply to its Subcontractors and their employees, agents, representatives, and visitors and any and all of them. It shall be Contractor's responsibility to ensure compliance.

1.3 This document does not cover all HSE requirements, but outlines WOC's minimum requirements for safeguarding personnel, property and the environment. The obligation is on the Contractor to seek further guidance from WOC as necessary. Specific or special site procedures shall be developed by the Contractor as necessary with the concurrence of WOC. Contractor must evaluate the risks of its work and equipment and equip its personnel with the appropriate personal protective equipment (PPE) above the minimum requirements.


1.4 Contractor shall develop a site specific HSE plan (which may be written in the form of a bridging document) which shall be submitted to WOC for approval before the work begins. The plan shall clearly demonstrate how Contractor ensures that all its operations and activities will be managed safely and responsibly to protect the work force, local communities, the environment and other natural resources. The plan shall contain clear references to the contents of this document and in so doing shall demonstrate compliance.

1.5 Strong, visible commitment and support begins with executive management and extends through all levels of an organization. Contractor Management is responsible for providing leadership, accountability and the resources to prevent injuries, occupational illnesses, incidents and to minimize environmental impact. Individual employees and line supervision within Contractor are responsible and accountable for the safety, occupational health and environmental performance of their work place. Contractor management will be accountable for ensuring compliance with these WOC HSE requirements.

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1.6 Contractor is responsible for enforcing and abiding by any and all industry applicable national and international legislation, standards and guidance.

FAILURE BY CONTRACTOR TO COMPLY WITH THE REGULATIONS AND REQUIREMENTS ADDRESSED IN THIS EXHIBIT OR TO PROMPTLY CORRECT UNSAFE CONDITIONS MAY RESULT IN STOPPAGE OF WORK AND BREACH OF THE CONTRACT. THIS COULD RESULT IN **CONTRACT TERMINATION** AS DEEMED APPROPRIATE BY WOC.

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## 2.0 HSE REPRESENTATIVE

2.1 Contractor shall provide a competent HSE representative who shall conduct an assessment of Contractor facilities prior to the start of work to determine the quality and availability of HSE related equipment and material. Their report and their findings shall be copied to WOC.

2.2 Contractor shall specifically designate, prior to the start of work and for the duration of the contract, a competent HSE resource who will be responsible for liaising with WOC's HSE personnel, administering Contractor's HSE programs, meeting all HSE training needs, conducting HSE incident investigations, etc. Regular updates from the Contractor HSE representative to WOC are required.

## 3.0 TRAINING AND MINIMUM REQUIREMENTS FOR WORKING AT WOC FACILITIES

Contractors must comply fully with the training and WOC working requirements.

The main working requirements are as follows:


3.1 All personnel working shall ensure they have had the following;

1. Medical certification stating their fitness to work
2. Safety orientation by WOC before they begin work
3. Basic fire-fighting training
4. Basic first-aid training

3.2 Contractor must provide competent qualified craftsmen who can meet specific requirements and training as required by applicable HSE regulations and WOC HSE standards.

3.3 Contractor shall provide the following safety training and specific safety meetings of its employees and make these records available to WOC personnel for review as necessary:

- a. Within 24 hours of arriving at the location and prior to commencing work visitors shall receive a HSE orientation that addresses factors that may affect personal safety and the environment;
- b. Regularly scheduled (minimum every two weeks) and properly conducted meetings shall be held with all supervisors to discuss HSE issues. A report of this meeting, with attendance records, will be maintained; and
- c. Daily pre-job safety meetings shall be conducted and documented for all work groups to discuss any risks associated with the work in addition to any accidents, near-miss and unsafe acts or conditions noted by the crew.

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d. HSE Induction Training

It is mandatory, that prior to commencement of work, ALL Contractor personnel must attend WOC's HSE induction training course.

Topics covered, but not limited to, are:

- General HSE policies/procedures
- Permit to work procedures
- Defensive driving and journey management requirements
- Personal Protective equipment (PPE)
- Incident reporting
- Medical, and Emergency response

Contractor and its nominated Sub-contractors shall ensure that their drivers have attended a defensive-driving training course prior to commencement of work in the WOC Fields. Successful drivers shall be issued with appropriate licences. Drivers that fail the course will not be approved to drive within the WOC Fields for the duration of the contract.

#### **4.0 INCIDENT REPORTING**

5.1 Contractor shall maintain and provide WOC with accurate and timely HSE Incident Reports which shall be documented on forms agreeable to both parties and reported as follows:

- a. Fatalities, multiple personal injury incidents and any personal injury involving days away from work shall be reported to WOC immediately.
- b. Personal injury involving restricted work cases, medical treatment cases or first aid, and near-miss incidents shall be reported at the Area Superintendent's daily management meeting and recorded in the weekly reports.
- c. All spills of hydrocarbons and/or chemicals shall be logged and reported as a spill incident and recorded in the weekly report.

#### **5.0 PERSONAL HEALTH & SAFETY**

5.1 Each of the WOC camps is staffed with a Camp Doctor and a Clinic. Contractor personnel shall advise the Camp Doctor of personal medical conditions that may prevent them from completing their job in a safe manner or that may be necessary in an emergency. Personnel will also notify the Camp Doctor of any medication being taken on a regular basis.

5.2 Contractor shall provide WOC with a statement for each Contractor employee demonstrating that its employees are fit to work at any of WOC's work locations. The certificate of fitness for field work is intended to demonstrate that an individual can effect self rescue in an emergency situation e.g. climbing, going up or down stairways or ladders, working at high elevation etc.



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5.3 Contractor is required to maintain high standards of housekeeping and sanitation. The applicable areas of concern include:

- a. Provisions for quality potable water, unless it is being provided by Waha (see section 13.).
- b. Sanitary toilet and wash facilities.
- c. Sleeping quarters.
- d. Rubbish disposal (e.g., protection from insects/rodents).
- e. Kitchen, dining, and food storage areas (see section 14.)
- f. Neat and orderly shops, offices, safe fuel-storage area and other work areas
- g. Fire prevention/fire fighting capability (see section 11.)
- i. Electrical safety (see section 12.)

5.4 WOC reserves the right to inspect Contractor's facilities at any time. WOC will inspect the Contractors facilities on a quarterly basis as a minimum. Any findings from such inspections which are in violation of the WOC's HSE contractual requirements must be corrected immediately at Contractors expense.

5.5 All traces of oil shall be thoroughly washed from the skin and hydrocarbon solvents should be avoided. Impermeable gloves shall be provided where needed.

5.6 Cuts and abrasions shall be cleansed at once and given first-aid treatment.

## **6.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

6.1 All Contractor's personnel shall wear PPE as appropriate and are responsible for ensuring such equipment is kept well maintained and properly stocked.

6.2 Loose clothing shall not be worn around moving machinery such as engines, motors, drills, etc.

6.3 Contractor shall provide all their employees with PPE suitable to prevent injuries for the job involved. This PPE will be a minimum of hard hat, safety shoes, safety glasses and approved flame retardant-coveralls. All PPE shall have been manufactured to oil & gas industry accepted standards.

6.4 Contractor shall supply additional specific PPE for specialized jobs which includes but is not limited to:

- a. Impermeable gloves for jobs like handling battery acids, cleaning chemicals and washing dishes.
- b. Leather gloves for jobs like welder, welder helper, maintenance man, etc.
- c. Welders hoods and goggles and spats that meet applicable standards.
- d. Face shields and goggles for use while handling battery acids, chemicals and grinding equipment that meet applicable standards.



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- e. Sufficient work site shade (specifically in the summer months) to prevent employees suffering heat stress.

6.5 For all respiratory related hazards, personnel shall wear appropriate respiratory protection.

6.6 Contractor shall supply hearing protection to all personnel for use in high noise areas at or above 85 dBs.

## **7.0 DRUGS, FIREARMS AND ALCOHOL**

7.1 The use or possession of any prohibited items or substances, illegal drugs, look-alike drugs, drug paraphernalia, weapons, firearms or ammunition is prohibited.

7.2 The possession or use of any alcoholic beverage is prohibited.

7.3 Contractor shall cooperate with WOC to eliminate any substance abuse\* which has the potential to cause accidents, absenteeism, poor performance, poor morale or damage to WOC's or Contractor's reputation.

\*Substance abuse in the context of this statement includes alcohol, illegal drugs, prescription drugs, "over the counter" medication and any other substance that may be inhaled, injected, or taken by mouth that may impair the performance of the individual.

To accomplish this, WOC requires, as a minimum, that the Contractor do the following:

- a. Inform their employees that, as a condition of Work, they shall be subject to the Policy documented in this paragraph. WOC can require Contractor's employee to undergo testing whenever their behaviour creates a reasonable concern that substance abuse has occurred.
- b. Carry out, upon WOC's written request and at Contractor's expense, an adequate test to determine if substance abuse by Contractor's or its Sub Contractor's personnel assigned to the Work has occurred;
- c. Immediately remove from the Work site any Contractor or Subcontractor employee who has tested positive for substance abuse.
- d. Immediately remove from the Work site, any Contractor or Sub Contractor employee who refuses to submit to the substance abuse test requested by WOC and/or Contractor.

## **8.0 MEDICAL /EMERGENCIES**

8.1 Contractor shall provide transportation, local first-aid treatment and medical care for all Contractor employees, Subcontractors, visitors, agents, or representatives.



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8.2 Contractor shall immediately report to WOC any accident, injury or illness which requires a person to be urgently transported for emergency medical treatment and/or admitted to the hospital.

8.3 Contractor will submit written reports on all incidents or accidents at the Work site involving Contractor personnel.

### 9.0 TRANSPORTATION SAFETY (Journey Management)

Contractor shall cover any journey management aspects of the contract within the HSE contract plan, this relates to competence, training, control of drivers and movement of vehicles.

In the contract HSE plan, Contractor must identify the scope of driving required for the contract including Sub-Contractors to be used and clearly demonstrate how it intends to effectively control the risk. A specific journey management plan shall be prepared that shall include road maps, rest points, control of driving hours of drivers, plan for vehicles breaking down in the desert, personnel lost/overdue, communications etc. All designated drivers shall have been trained and certified in desert-driving techniques.

Vehicles shall not be driven closer than 100m from any high lines, any loaded vehicles or cranes that may be required to pass under a high line shall ensure they have a minimum 6m clearance from the lowest cables.

The Contractor and Sub contractors must provide their vehicles with seat belts front and rear and ensure that all of its employees fully comply with the wearing of the seat belts.

Vehicles must be fit for desert driving e.g. 4 X 4 driven wheels, internal or external roll cages fitted, two-way communications systems, emergency packs etc.

9.1 Each vehicle operator shall ensure that a daily logged inspection is made of the vehicle that includes items like brakes, lights, tyres, tracks, clear windshield, mirrors, adequate fluids, fluid leaks and specialized equipment.

9.2 All vehicles shall be fitted at least with the following equipment:

- a. Fire extinguisher.
- b. First-aid kit.
- c. Flash Light
- d. Tool kit
- e. Emergency supplies including fresh water.
- f. Two-way radio communications equipment
- g. Internal or external roll cage appropriate to the vehicle in question

9.3 All fuel tanker trucks shall be formally certified fit for purpose and carry container bags, absorbent material and tools for the cleanup of spills.

9.4 There should be means for the driver to observe passengers carried in the rear of the vehicle (e.g. rear-view mirror).



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9.5 There shall be a means of securing freight when passengers and freight need to be carried in the same compartment.

9.6 No one shall sleep in a vehicle with the engine running. A stationary vehicle can be kept running with people inside when a window is opened at least 5 centimetres.

9.7 All seating shall be securely fixed: passengers shall be seated while travelling: all nails and protruding bolts inside the passenger compartment shall be eliminated.

9.8 In-case of delivering materials using air-transportation, Contractor shall comply with the latest IATA Dangerous Goods Regulations.

9.9 No passengers shall be carried on heavy equipment e.g. earth/sand moving equipment, Back Hoes etc. or in the back of lorries or pick up trucks.

9.10 No vehicle shall enter a process area unless it is diesel driven and has appropriate air intake shut off valves and exhaust spark arrestors fitted.

## **10.0 ACCOMMODATION**

10.1 Contractor living accommodation shall be in the form of either purpose built trailers or cabins specifically designed for human habitation in a desert environment. Accommodation units shall be sited clear of any sources of hydrocarbons or other toxic gases. There shall be a maximum of two persons per room, each shall be provided with separate beds, mattress and sheets which shall be changed regularly. Each room shall have appropriate storage space for employees clothing and other personal effects. Each room shall have a separate working air conditioning unit (unless the accommodation unit is supplied by a central a/c system).

10.2 Contractor shall provide sufficient kitchen and mess hall/room facilities for the maximum number of employees expected on the contract (see section 14.0). These areas shall be air conditioned.

10.3 Health & hygiene, Contractor shall adhere strictly to the requirements given in section 5.0, Personnel Health & Safety. Contractor shall provide a minimum of one washroom for every four employees.

10.4 Contractor shall ensure that employees do not cook in their bedrooms. This is strictly prohibited.

10.5 Contractor shall ensure that there is always an adequate supply of food stuffs available at all times. For the avoidance of doubt this shall include but not be limited to dry goods, fresh fruit and vegetables, meat, poultry and fish etc.

10.6 Contractor accommodation shall be properly fire protected. This shall include clearly sign-posted emergency exits, certified and filled fire extinguishers, smoke detectors, audible alarms etc.

10.7 All safety and fire fighting equipment shall be inspected and reported on monthly. These reports shall be made available to WOC on demand.



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10.8 Contractor shall ensure that there is an emergency response plan in place that is appropriate to their specific camp. The plan shall include the name of the person in charge, emergency escape routes, muster points, muster lists, emergency evacuation drills, emergency communication etc.

### 11.0 FIRE PROTECTION

11.1 Contractor shall use specially manufactured cleaning solvents to clean parts. Petroleum products lighter than diesel fuel shall not be used for cleaning purposes.

11.2 Discarded matches, cigarette butts, and other smoking materials shall be placed in ash trays or suitable containers.

11.3 Contractor shall provide at least one ABC rated dry chemical fire extinguisher of 5kg capacity in each living quarter/office.

11.4 Contractor shall provide at least one ABC rated dry chemical fire extinguishers of 10 kilograms or more in each workshop hut. Each vehicle used by Contractor shall have as a minimum one 5kg ABC extinguisher mounted on board in an easily accessible location.

11.5 Contractor shall provide at least five 15 kilogram ABC rated dry chemical fire extinguishes for every ten units of accommodation and these extinguishers shall be located outside the units of accommodation around the camp and in easily identifiable locations.

11.6 All extinguishers shall have valid test certificates and shall be inspected by Contractor's competent person at least once every month.

11.7 Contractor shall provide at least one battery-powered smoke detector in each room in the living quarters and one in each office with sufficient batteries to maintain the units during the period of camp operation.

11.8 Contractor shall conduct a monthly inspection of all huts for the purpose of identifying fire hazards, taking appropriate remedial action and submitting a monthly report to the WOC Camp Safety Superintendent.

11.9 Contractor shall ban smoking except in a designated areas. Signs saying **NO SMOKING** shall be in both English and Arabic.

### 12.0 ELECTRICAL STANDARDS

12.1 Contractor shall ensure that the electrical installation in its camp(s) complies with recognised Industry standards. Contractor shall inspect all electrical equipment and installations in camp for the purpose of identifying and correcting known hazards.

12.2 Electrical conductors shall be of sufficient size and current-carrying capacity for the equipment being used.



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12.3 Every circuit shall be protected against over-current by automatic devices. In addition, every circuit for small power receptacles shall be protected by Ground fault Current Interrupters (GFCIs).

12.4 Every electric motor shall have an accessible and easy means of disconnection.

12.5 All unsafe appliances, wires, and electrical apparatus shall be reported immediately to the electrician or supervisor.

12.6 All electrical hand tools must be properly grounded including galley equipment, e.g. frying pans, griddles, toasters, etc.

12.7 Contractor shall ensure there is no improper (i.e. against recognised codes of practice including hazardous area classifications) wiring and electrical installations.

12.8 All electrical junction boxes/panels shall be of an industry approved design regarding enclosure construction, cable entries, circuit breakers and terminations. All electrical panels/boxes shall be properly marked "Danger Electrical Hazard" or similar.

12.9 FAILURE TO PROVIDE ELECTRICAL EQUIPMENT AND WIRING PER THIS REQUIREMENT COULD RESULT IN THE CLOSURE OF THE CONTRACTOR'S CAMP.

### **13.0 DRINKING WATER**

13.1 Contractor shall provide drinking water that meets or exceeds the World Health Organisation's (WHO) Guidelines for Drinking Water Quality 2006 or European Union (EU) Council Directive 98/83/EC on the quality of water intended for human consumption.

13.2 Contractor shall obtain and submit to WOC a potable water sample once per month to determine if the water meets the drinking water standard.

### **14.0 KITCHEN HYGIENE**

14.1 Contractor shall provide clean and sanitary food preparation, storage and dining facilities.

14.2 Separate sinks shall be available for washing hands and food preparation.

14.3 In the absence of a dishwasher, all dishes and eating utensils shall be cleaned with hot, soapy water. Dishes and eating utensils shall be rinsed with boiling water or with hot water containing 100 millilitres liquid bleach per 20 litres of water.

14.4 Air or drip-dry the dishes or eating utensils.

14.5 Contractor shall provide adequate refrigeration and freezer capacity to:

- a. Prevent food from touching the floor, walls, lids, or doors of the cold storage units.
- b. Keep raw foods separate from cooked foods.
- c. Keep all uncooked frozen food at -18° C (0° F).



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- d. Keep precooked meat at 0-3° C (32-37° F) for no longer than two days.
- e. Thaw frozen food in refrigeration and not at room temperature.
- f. Keep leftovers in glass or plastic containers with lids and labels showing the date it was cooked.

14.6 Unopened canned goods shall be stored in a cool, dry area.

14.7 Fruits and vegetables shall be stored in well-ventilated areas and protected from insects, rodents etc.

14.8 Food shall not be stored in the same area as non-food (such as detergents, pesticides, etc.)

14.9 Kitchen staff, including helpers, shall be medically examined before initially commencing work and must be free of contagious diseases, cuts, sores, and colds when handling and preparing food.

14.10 Kitchen staff shall wash their hands prior to the handling of food, after handling uncooked food, or using the toilet.

14.11 Kitchen staff shall report for duty in clean clothes, preferably uniforms and cook's caps, and hairnets.

14.12 Cooked food shall not be allowed to come into contact with uncooked food or surfaces used to prepare uncooked food.

14.13 Separate chopping boards shall be available for raw and cooked meats and vegetables.

14.14 Kitchen facilities shall undergo a general cleaning and sanitation process two times per week.

14.15 All kitchen electrical circuits shall have ground fault current interrupters (GFCI) fitted (see also section 12.0).

14.16 Kitchen shall be equipped with the appropriate number and type of fire extinguishers, medical first-aid kit and fire blankets. Kitchen staff must have had training in the correct use of fire extinguishers and fire blankets.


## **15.0 WASTE MANAGEMENT AT CONTRACTOR CAMP**

15.1 Toilet and shower facilities shall be supplied for all personnel.

15.2 Discharge waste water from showers, kitchen and toilet must be piped to an approved septic tank. This must be positioned at least 70m away from the facilities..

15.3 Phosphate free soaps and detergents shall be used for all camp washing purposes.

15.4 Packaging, paper, cardboard, etc. and kitchen garbage shall be burned in a burn box type incinerator that is well ventilated.

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## 16.0 COMMUNICATIONS

16.1 Contractor shall provide a communication system within their respective work area as necessary to conduct the business safely and cost effectively.

## 17.0 TOOLS

17.1 Power shall be disconnected from tools prior to adjusting, removing or replacing tool elements.

17.2 When refuelling engine-driven equipment with onboard fuel tanks, such as welding machines, compressors, vehicles, etc.; the engine must be shut down. Compressors, welding machines, etc., must be allowed to cool at least ten (10) minutes before refuelling.

17.3 Only approved safety cans or bulk transfer systems with bonding and grounding clamps shall be used for handling fuel.

17.4 All exposed moving parts on rotating or reciprocating equipment shall be guarded during operation.

17.5 Small tools or other work material shall be carried in a tool belt, provided it does not impair movement when ascending or descending ladders.

17.6 Contractor shall provide the appropriate kind, volume, and quality of hand tools that are properly dressed and free from defects such as worn ratchet cogs, dies, handles, and shields. WOC reserves the right to reject tools altered by the Contractor. The use of hand-made tools is strictly forbidden. Contractor shall regularly check and certify the condition of tools and equipment to verify their continued fitness for use.

17.7 Contractor shall provide electric hand tools that are either grounded or double insulated. Ground Fault Current Interrupters (GFCIs) shall be utilized for electric tools in wet areas.

17.8 All tools designed with protective guards e.g. Grinders shall be used with the guards in place.


17.9 All portable step and extension ladders shall be free from visible defects and be tied off at the top during use.

17.10 The fuel supply to all gas metal cutting equipment must be turned off when not in use.

17.11 Oxygen cylinders must be stored a minimum of 5 meters away from a source of hydrocarbon fuel.

17.12 Petroleum products must be stored in correctly labelled safety cans with flame arresters and self-closing lids and must not be used as a cleaning solvent.

17.13 Winches shall only be operated by trained personnel and all personnel shall stand clear of moving or lifted objects. All lifting equipment shall have a valid, in-date, test certificate

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17.14 Batteries being transported and used to power equipment shall be contained in a box, wood or plastic, with covers to prevent dropped objects from shorting across terminals and shall have ventilation ports to prevent the build up of hydrogen gas.

## **18.0 WASTE DISPOSAL**

18.1 Contractor shall ensure that all wastes generated by Contractor shall be properly segregated and stored for later disposal. Waste generated by Contractor shall either be disposed of at a WOC waste disposal point or disposed of by Contractor to a recognised waste disposal contractor. Waste that can be re-cycled shall be done so at Contractors expense.

18.2 Empty drums will be sealed tightly, collected and stored in a lined and bunded area until they can be returned to the vendor or rinsed, crushed and added to the scrap metal material.

18.3 Used oils, lubricants, etc. will be stored in sealed drums within a bunded and lined storage area for transportation to a recycling facility.

18.4 Used oil filters will be drained and incinerated.

18.5 Spent batteries and metal scrap shall be collected and stored for transportation to a recycling facility.

18.6 Empty drums can be used at the discretion of the Area Superintendent or his designate for trash containers, spill response, storage of used oil, roadway guards or other purposes deemed appropriate.

## **19.0 DRILLING WASTE MANAGEMENT**

19.1 The septic waste pit shall be a minimum of 70m from the mini camp.

19.2 The flare pit where possible should be positioned 200m away from the well location

19.3 Industrial waste and camp burn pits are to be combined as one rectangular pit to reduce the desert footprint. The pit and access is to be of gypsum to allow fork lift truck access. Bund walls are to be 1.5m with one central entrance. Dimensions of the pit should be approximately 12m X 6m.

19.4 Cuttings waste pits are to be sized to match expected returns. It is expected that these pits shall be 4m deep, 15m wide and some 35m long. Each pit shall be lined with a heavy duty membrane which shall overlap the sides of the pit by at least 2m all around.

19.5 Water storage pit shall be of similar construction to the cuttings pit but by its nature will be smaller in size.

## **20.0 RESTORATION OF WELL SITES & RELATED FACILITIES**

Restoration shall include:



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- Any unwanted structures must be removed and disposed of
- Any wood, sacks etc should be burnt
- Any temporary structures & equipment must be dismantled and removed from site
- Where possible pit liners shall be left in place, where however they have to be removed, for any reason, they should be properly disposed of by incineration at the nearest Waha camp.
- All chemicals should be clearly marked and transported to the next location or returned to the supplier.
- Any hazardous waste should be segregated and disposed of by incineration at the nearest Waha camp.
- Any excavations in the location gypsum to be filled and levelled.

#### 20.1 Waste pits and sewage pits

Once the well has been completed and before the rig has been fully demobilised, remove residual water from waste pits and re-cycle. Waste pits are to be barriered off prior to the rig move. Burn the diesel from the waste pits, allow the residual water and diesel and cuttings to dry or solidify thoroughly before folding in the heavy duty membrane over the top to seal the remaining residue. Pits to be backfilled with sand and should be mounded to around 1m to allow for settling.

#### 20.2 Burn Pits

Remove all metal and batteries for recycling. Burn remaining combustible materials and bury in the pit

#### 20.3 Litter

Remove all plastic bottles, oil drums, plastic bags, chemical transport bags, paper, cardboard, cans etc from the well site, campsite, roads etc up to a distance of 200m from any of these structures.

#### 20.4 Photographic evidence

Take photographs of all areas, waste pits, burn pit, camps, roads and well site to demonstrate and document the condition they were left in. These should be inserted in the well file as evidence.

### 21.0 CHEMICALS

21.1 Store chemicals like acids, batteries and lubricants, in a covered and bunded storage area.

21.2 All chemicals shall be clearly labelled in both English and Arabic.

21.3 Material Safety Data Sheets (MSDS) or the equivalent for each chemical shall be provided at their storage location in English and Arabic.



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21.4 Chemical spills shall be cleaned up immediately in accordance with the guidance given on the MSDS sheet.

21.5 Industry standard shower and eye wash stations shall be provided in the vicinity of chemicals area.

## **22.0 GAS CYLINDERS**

22.1 Gas cylinders shall be in good condition, free from rust, test stamped and kept a reasonable distance from welding or cutting operations. Cylinders shall have the contents labelled or stencilled on the cylinder.

22.2 Oxygen and fuel cylinders must be separated by at least 5 meters.

22.3 All cylinders must be tied off or otherwise secured to a suitable support at all times. Cylinders should be mounted on trolleys or in a cradle to permit easy handling.

22.4 Cylinders shall not be dropped or dragged, rolled flat, or permitted to strike against each other or on hard surfaces.

22.5 All gas hoses shall be in good condition and shall be removed from inside vessels when not in use.

22.6 Hoses shall not be connected to cylinders in storage racks and shall not obstruct walkways or create tripping hazards.

22.7 Cylinders shall be stored and transported vertically in appropriate cages with valve caps in place.

- Naked lights or other heat source shall be kept away from any pressurised cylinders or flammable gases.
- Cylinders shall not be exposed to direct sunlight.
- Cylinders shall be stored according to their contents and not mixed together.

22.8 Gas cylinders that are used for cooking shall be placed outside the kitchen in a lockable steel cage.

## **23.0 RADIOACTIVE SOURCES**

23.1 All radiographic work shall be conducted in strict accordance with applicable safety regulations and the recommended safety practices of applicable codes and standards.

23.2 The use of a radioactive source shall be confined to individuals trained and certified in the precautions needed to use the source.

23.3 Radioactive sources not in use shall be stored in industry approved dedicated containers and appropriately quarantined. These containers shall be kept locked and shall have the name and job function of the responsible person clearly written on the outside. All signage shall be in both Arabic and English.



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#### **24.0 FUEL STORAGE**

24.1 Contractor shall provide fuel storage in welded steel tanks in a containment storage area that will be able to contain the volume of the largest tank.

24.2 Petroleum product shall only be stored in labelled safety cans with flame arrestors and self-closing spouts.

24.3 A **NO SMOKING** area of 10 meters from the fuel storage and refuelling area shall be established and plainly marked in English and Arabic.

24.4 The fuel storage and refuelling area shall be inspected daily for spills/ leaks and any contamination.

#### **25.0 EQUIPMENT REFUELING**

25.1 Refuelling and lubrication of on-line equipment shall be done in a manner that avoids spills.

25.2 The person responsible for transferring fuel or refuelling equipment shall be in attendance during all of the transfer operation.

25.3 Drip pans shall be in place to catch small spills and leaks during vehicle maintenance and fuelling.

25.4 Fuel trucks shall carry spill cleanup equipment including: absorbent pads, rolls, or booms, plastic sheeting, containers to hold spilled material and flagging tape.

25.5 Recovered contaminants and used absorbent material shall be returned to camp for processing and incineration.

25.6 Refuelling or servicing mobile equipment will not be allowed within 300 meters of a water body except at an approved refuelling site with containment.

25.7 The location of spills of one barrel or more shall be flagged in the field and recorded on a field map for damage/remediation evaluation after break-up.

#### **26.0 LOCKOUT/TAGOUT**

Contractor shall institute a lockout/tag out procedure for any work on electrical supply lines, motors, or fuel powered engines that include:

- a. The identification of all equipment to be shut down and the people who will be involved in the work.
  - b. Notification that a lockout/tag out procedure will take place.
  - c. Identification of all power sources for the job.
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- d. Disconnecting the energy source; electricity, spring energy, hydraulic/pneumatic energy, etc.
- e. Locking out the equipment with individual locks and keys for each worker involved in the procedure.
- f. Tagging out all the power sources and machines.
- g. Performing the work, checking the work, removing the locks and tags and returning the equipment to service.

## **27.0 HOT WORK**

27.1 Contractor shall obtain a "Hot Work" permit each day from the WOC representative before beginning any Work where flammable or explosive materials may be present and welding, burning or spark producing work is to be performed.

27.2 Contractor shall provide a dedicated, trained fire watch with a 15kg ABC type fire extinguisher during welding, cutting and other "Hot Work" operations where flammable or explosive materials may be present.

27.3 Contractor equipment that will be used in Hot Work designated areas and/or within 100m of live installations must be diesel driven and be fitted with spark arrestors on the exhaust system and have an air intake automatic shut off valve installed on the air intake.

27.4 All welders engaged in welding shall wear a face hood and their helpers shall wear goggles designed for welding or cutting applications which shall be ANSI Z87.1-2003 certified.

27.5 While working at a height, precautions shall be taken to prevent welding rods, stubs and slag from falling.

27.6 All personnel involved in hot work activities must be alert to the dangers of fire and explosion.

27.7 No hot work is permitted in the presence of flammable atmospheres, where flammable atmospheres may develop due to un-cleaned or improperly prepared drums, tanks, other containers or equipment which may have previously contained flammable materials.

27.8 Prior to welding, cutting, burning or brazing on tanks, vessels or equipment; the Contractor supervisor shall ensure they are free from flammable gases, vapours, oil or sludge. When vessels and tanks are being welded or burned on the outside, there is a danger of toxic or flammable gases collecting within the vessel or tank.

27.9 Under no circumstances will compressed oxygen be used for ventilation.

27.10 Cylinders of oxygen, acetylene, or propane are never to be taken into a confined space. Gas hoses and welding leads are not to be taken into a confined space until immediately prior to their use.



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27.11 Welding machines shall be shut down any time the job is left unattended.

27.12 Engine driven equipment shall be shut down and allowed to cool for at least ten (10) minutes before refuelling.

## **28.0 CONFINED SPACE ENTRY**

28.1 No person shall enter any confined space without obtaining an Entry Permit that includes a specific written rescue procedure.

28.2 A confined or enclosed space is defined as any area having a limited means of entry or exit which could also be subject to the accumulation of toxic or flammable gas or liquids or an oxygen deficient atmosphere. Examples of a confined space includes vessels, test separators, pipes and open tanks or sumps deeper than 2 meters.

28.3 Entry is defined as breaking the plane of the confined space opening with any part of the body other than the arms.

28.4 Air extractors which, pull air through the confined space, should be used to initially vent the confined space and also to provide a continuous flow of fresh air while any work is being done inside the confined space. Air extractors shall be properly bonded (earthed) prior to starting the work.

28.5 Prior to entry, all confined spaces are to be tested for oxygen content. The minimum allowable content is 19.5%.

28.6 Tanks, vessels, or other confined spaces should be entered from the side openings or manholes whenever practical.

28.7 Any portable electrical equipment used in a confined space is to be properly grounded.

28.8 Air operated pneumatic tools should be used whenever possible.


28.9 Lighting requirements inside metallic vessels shall be low voltage (12 volt) with step-down transformers located outside the vessel or, with WOC approval, a 110 volt source with ground fault interrupter device located outside the vessel.

28.10 Any power cords shall be padded where entering the vessel to prevent damage to the insulation.

28.11 A clear path of escape shall be established during any confined space work.

28.12 When a ladder is required to enter or exit a confined space, the ladder shall be secured in place for as long as personnel are in the confined space.

28.13 Prior to personnel entering a confined space the space is to be completely isolated from all other systems and/or equipment and tested for the presence of poisonous gases (see also 28.5).

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28.14 Continuous interval testing for the presence of gas shall be made while personnel are working within the confined space, these readings shall be documented.

28.15 When testing a confined space which requires personnel to wear respiratory equipment, there shall be at least one additional person on site equipped with respiratory equipment. This individual shall be outside the confined space and within sight and call of the person inside the confined space.

28.16 An approved safety belt or harness with a lifeline shall be utilized by all personnel wearing breathing apparatus and entering a confined space for testing purposes.

28.17 The Entry Permit shall address the following issues as a minimum:

- a. Job site
- b. Date and time of issue and expiration
- c. Description of equipment to be entered
- d. Types of atmospheric checks to be performed and recorded
- e. Description of isolations
- f. Description of ventilation
- g. Identification of standby person and needed equipment
- h. The rescue procedure

## **29.0 EXCAVATIONS**

29.1 All permits and approvals must be obtained prior to the commencement of any work on an existing plant site, well site or pipeline right of way.

29.2 All pipelines, underground piping, cables or other underground facilities must be located and identified in the proposed work area prior to commencing any excavation or construction work which penetrates deeper than 30 centimetres from the surface.

29.3 A safe work permit should be issued for all work within 30 meters of existing underground equipment. A final advisory call shall be made to the Waha control room prior to the actual digging taking place.

29.4 Safe work permits (complete with ground disturbance checklists) must be issued for all excavation work within 5 meters of an existing underground facility.

29.5 Before a worker begins working in an excavation greater than 1.5 meters in depth and narrower than its depth, the employer must ensure that the worker is protected from cave-ins and sling material by the following:

- a. Cutting back the walls to reduce the remaining vertical height to less than 1.5 meters, or
- b. Installing temporary protective structures.
- c. Protected by means of water removal equipment or drainage systems and special wall support if it is subject to water accumulation.



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29.6 Where cutback method is used, the walls must be cut back, in hard and compact soils, to not less than 30 degrees from the vertical. In all other soils, 45 degrees from the vertical will be the minimum.

29.7 Shored excavations of over 3 meters, the shoring (design) must be approved by a professional civil engineer.

29.8 Spoil piles must be at least 1 meter from the side of the excavation and have a slope of less than 45 degrees.

29.9 Access ladder should be provided for worker enter and egress for excavation greater than 1.2 meters. Safe access/egress by means of stairways, ladders, etc., shall be provided for every 7.0 m travel distance.

29.10 If the excavation is to be left unattended, it must be barricaded at a distance greater than 1 meter from the side of excavation complete with warning signs

29.11 Employees shall not work in an excavation in which there is accumulated water unless special supports have been installed to protect against cave-ins and to control the water level.

### **30.0 PERMIT TO WORK**

30.1 Contractor shall use and adhere to the WOC permit to work system whilst carrying out work at any WOC locations.

### **31.0 HYDROGEN SULFIDE GAS (H<sub>2</sub>S)**

31.1 A written contingency plan shall be prepared for all sites where H<sub>2</sub>S is or may be present in concentrations above 10 ppm.

31.2 Air supplied breathing apparatus with a positive pressure full face piece shall be required to enter any area containing 10 ppm or more of hydrogen sulfide.

31.3 If H<sub>2</sub>S is suspected or detected all personnel shall leave the area immediately by moving in an upwind and/or higher direction.

31.4 The Contractor shall ensure that all employees are properly educated and trained to work in areas of potential H<sub>2</sub>S concentrations. This shall include the use of the "buddy system" where appropriate.

31.5 Before attempting to rescue a person overcome by H<sub>2</sub>S, a rescuer shall first put on air supplied breathing apparatus with a full face mask.

31.6 In areas where H<sub>2</sub>S can be present above 300 ppm, all personnel shall be trained in the use of self-contained breathing apparatus; muster stations shall be established and muster drills shall be conducted as a minimum every two weeks.

31.7 Wind socks or other types of wind indicators shall be present and readily visible on the worksite.



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31.8 Qualitative and quantitative detectors with calibration equipment shall be present at each worksite where there is the potential for H2S exposure. Contractor employees working at these sites shall all wear individual monitors.

### **32.0 LIFTING EQUIPMENT**

32.1 All lifting equipment items, including but not limited to cranes, chains, shackles, slings, etc. are subject to inspection by WOC and shall meet WOC requirements prior to being used on site.

32.2 All lifting equipment is to be maintained in good condition for safe use in the intended service. All lifting equipment e.g. cranes, shall be certified and tested for specific uses and loads.

32.3 All inspections, testing and certification/recertification shall be recorded. Proof of certification and ongoing recertification shall be made available for WOC.

32.4 Any equipment which appears to be defective as a result of inspection by WOC shall be withdrawn from service until recertified, retested or replaced. WOC reserves the right to require Contractor, at his sole expense, to load test any lifting equipment components, rigging, rigging hardware or material containers which are not properly labelled or in the opinion of the WOC representative, are in a state of disrepair.

32.5 Any lifting equipment supplied for a specific lift (engine/compressor tools, spreader bars) shall be used only for the specific intended purpose.

32.6 Personnel riding on loads, slings, the ball, crane hook or other material hoisting equipment is prohibited except in an emergency.

32.7 Tag lines shall be used to assist in the control of loads.

### **33.0 CRANES**


33.1 All cranes shall have a valid test certificate which is less than 12 months old. All crane and forklift operators shall have a valid licence.

33.2 Contractor shall permit only fully qualified and certified operators to operate mobile equipment, forklifts and cranes on Company work.

33.3 Cranes shall be inspected daily by a competent person. Daily inspection record sheets which are signed by the competent person and crane operator shall be maintained and available for WOC review.

33.4 Crane maintenance shall be carried out and recorded based on the crane manufacturer's preventive maintenance program.

33.5 All crane hooks shall have a safety latch fitted to prevent accidental displacement of load and shall be inspected daily for deformation or cracks. Hooks with cracks or having 15% more

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than normal **throat** opening or more than 10% twist from the plane of the unbent hook shall be discarded.

33.6 A dry chemical fire extinguisher of at least 10 kilograms shall be affixed to every crane.

33.7 All cranes shall be fitted with an automatic, anti-two blocking device or be fitted with an indicator, such as a flag tied to the load line above block, readily visible to the operator to warn of imminent two blocking.

33.8 All control levers, pedals and switches shall be fitted with locking devices to prevent accidental movement.

33.9 All cranes shall have momentary type controls which return to their neutral position when released.

33.10 All cranes shall be equipped with limit switches which prevent the boom from travelling past its top and bottom stops and maximum load limiting equipped with a signal, which will actuate until corrective action is taken.

33.11 All control levers, pedals, and switches shall have a schematic affixed nearby stating their purpose and mode of operation.

33.12 A load chart shall be fitted, visible to the operator, showing the radii and safe working load of the main and auxiliary hook blocks. The correct reeving diagram shall be within easy view of the operator.

33.13 Crane booms should be left in a stable condition at the end of each workday or anytime the crane is left unattended.

33.14 Cranes moving with suspended loads should have a flagman and the load restrained from swinging by use of a tag line or by attaching restraining lines back to the crane body.

33.15 Suspended loads which are totally or primarily supported by the crane shall not be left unsecured or unattended at any time.

33.16 There shall be an effective system of communication between the person supervising cargo handling and the crane operator. Standard hand signals shall be posted.

33.17 Using two cranes on a single lift shall not be allowed without prior approval from the WOC representative. When allowed, the two-crane lifts shall be planned well in advance and be supervised by a competent and experienced person. The load carried by each crane shall be limited to its safe working load at the required configuration and rigging. Coordination of the lift shall be by radio communication or a clearly visible rigging competent person (i.e. the person in charge).

33.18 Contractor shall ensure that wire rope on all lifting equipment is well lubricated, in good condition and free of twists, kinks and broken wire.



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33.19 Crane booms or similar equipment shall maintain a 6.0 metre minimum clearance from all overhead power lines. Ultra high voltage lines shall require additional clearance.

33.20 All cranes and forklifts must be fitted with an audible reversing alarm.

33.21 Mobile cranes shall not make any lift until all outriggers have been fully and properly deployed.

33.22 Any person employed by Contractor as a rigger shall be proved to be fully trained and certified to carry out the work.

#### **34.0 RIGGING EQUIPMENT**

34.1 Rigging equipment for material handling shall be inspected prior to use on each shift and as necessary during its use to ensure that it is safe. Defective and/or not certified rigging equipment shall be removed from service.

34.2 Rigging equipment shall not be loaded in excess of its recommended safe working load. The safe working load may be as recommended by the manufacturer but the safety factor shall not be less than five (5).

34.3 Fibre rope slings shall not be used and chain slings are to be used only with prior consent of the WOC representative.

34.4 All double and multiple leg slings up to two (2) inches are to be connected by shackles and rings of the correct size and strength.

34.5 Slings shall be free of kinks and knots.

34.6 Shackles shall have the proper rating for the load and bolts shall never be used to replace a shackle pin.

34.7 Due to the potential hazard associated with rigging, WOC reserves the right to reject any rigging not deemed suitable by the WOC representative.

34.8 No empty drums with holes knocked or burned in the side shall be used as lifting containers.

#### **35.0 SCAFFOLDING**

35.1 All scaffold structures shall conform to current applicable safety standards. They shall be structurally sound, and all boards, braces, handrails, and toe boards securely fastened. All scaffolding shall be a minimum two boards wide (two (2) each, 5cm by 25cm) with rigid handrails. Safe access and egress must be provided for all scaffolds. Prior to its use, all scaffold structures are to be certified and visibly tagged fit for purpose by a competent person. Contractor shall ensure that any scaffolding shall be erected and maintained by trained and certified persons.



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35.2 Scaffolding fittings shall be examined before use in order to ensure all moving parts are free and well lubricated for easy and positive movement.

35.3 No boards with knots larger than 5 centimetres in diameter are acceptable for scaffolding. Looking at the edge of the board, not more than half of the depth shall be knot wood.

35.4 No boards with splits or warped sections are acceptable for scaffolding.

35.5 Grain shall run the length of scaffolding boards.

35.6 Scaffolding boards shall not be painted or treated in any way that may conceal defects. Ends may be painted for identification purposes.

35.7 Scaffolding and the area around scaffolding is to be maintained in a clean and orderly fashion.

35.8 Access to a scaffold work platform shall be by a separate ladder tower or cantilevered access platform or with a ladder that extends 1 meter above the point of support on the platform. Ladders shall be tied off (see section 36.0)

35.9 Safety belts or harnesses shall be worn and tied off to independent life lines when working from elevated areas where no protection is available to prevent the worker from falling or when riding boatswain chairs or work cages hoisted by a crane.

35.10 When Contractor is engaged in Work which includes installation of handrails or other safety devices, he shall plan the Work such that safety devices are installed at the earliest possible opportunity to protect personnel during the construction phase. Temporary guards shall be securely installed when possible.

## **36.0 LADDERS**

36.1 All portable ladders shall comply with current safety standards. Portable rung ladders and extension ladders shall be tied off at the top and have non-slip bases.

36.2 Ladders shall always be tied to a firm structure during normal use. Lashing near the top is required and near the bottom is advisable.

36.3 Ladders shall not be climbed by more than one person at a time. Persons using ladders shall be wearing their normal work site ppe, this shall include a hard hat.

36.4 Only wooden or fibreglass ladders shall be used around electrical equipment.

36.5 Extension ladders should have non-skid safety pads, extend approximately 1 meter beyond the landing and be tied off when in use.

36.6 Damaged ladders shall be removed from service immediately and repaired or destroyed.



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36.7 Ladders shall not be used as a bridge, skid, lever, platform, scaffold board, walkway, material hoist, scaffold support or for any other use for which it is not intended.

36.8 A person working on or from a ladder must always have both feet on the rungs and a secure handhold i.e. 3 points of contact at all times.

### **37.0 WILDLIFE**

37.1 Hunting, fishing, feeding, injuring or harassing wildlife is prohibited.

37.2 Report any wildlife incidents like wildlife-vehicle collisions, attraction of nuisance animals to camp, aggressive encounters with animals, etc. to WOC.

37.3 Pets in camp are prohibited.

### **38.0 ARCHEOLOGICAL SITES**

38.1 The discovery of any archaeological material shall be reported to WOC.

38.2 The collection and removal of archaeological material from known or newly discovered archaeological sites is prohibited.

### **39.0 LAND MANAGEMENT**

39.1 Existing roads and trails shall be used to limit additional disturbance to the botanical surface.

39.2 Travel off the route of the recognised road ways shall be limited to essential or emergency activities only.

39.3 Roots of cleared shrubs will be left in place to promote re-growth.