

## 1.0 MANAGEMENT COMMITMENT

Employee perception of management's commitment to safety is very important. If employees are to believe in the corporate safety program, management must be involved and committed to excellence in every area of the company's operations.

The Corporate safety policy is a written record of the Company's commitment to safety in the workplace. Regular communication with workers strengthens this commitment and encourages greater owner operator and contractor participation leading to higher morale and improved safety performance.

Branch managers are both responsible and accountable for safety at the work site. In addition, all levels of management are accountable for providing and maintaining a safe work environment with proper procedures, training, equipment and programs for ensuring that work is performed to acceptable standards. Superior safety performance can be achieved by fostering effective safety management principals, careful planning and active participation.

### **Environmental & Safety Manager(s)**

Environmental and Safety Manager(s) will support the safety initiatives undertaken at the branch level by offering guidance in context with designing and implementing health and safety improvements. The role of the Environmental and Safety Managers will focus on providing continuity to regional programs and to work with Senior Managers to monitor, assess and mitigate health and safety issues.

### 1.3b Safety Policy

#### Safety Policy

Definite Oil Field Services Ltd. is committed to the prevention of all accidents on and off the job and the protection of the health and well-being of all employees, owner operators, contractors, customers and suppliers.

Definite Oil Field Services Ltd. will maintain the highest standards for occupational health and safety through the design and operation of our equipment and will comply with all laws and regulations applicable to the business and persons within.

Definite Oil Field Services Ltd. will enforce and track all training programs for employees and owner operators and will ensure that organization policies and procedures are fully understood so that they may be effectively implemented.

Management will develop appropriate standards and procedures will train employees and owner operators to work towards those standards and will inform employees and owner operators of known hazards.

Every supervisor and manager is directly responsible for providing a safe and healthy work environment.

All employees, owner operators, contractors, and visitors are responsible for working safely at all times.

Travis Sharpe  
CEO



## 1.2 Petroleum Industry Guiding Principles for Health and Safety

Further to the Corporate Policy Statement on Health, Safety and Environment, Definite Oil Field Services Ltd. fully supports the Petroleum Industry Guiding Principles for worker safety.

These guiding principles were developed as part of the Upstream Petroleum Industry Task Force on Safety (U.P.I.T.F.O.S.) report, and states:

We, the members of the petroleum industry, have a responsibility to protect all workers engaged in its activities from personal injury and health hazards. To meet our responsibility we will operate under the following guiding principles:

### Responsibility

**Definite Oil Field Services Ltd., when acting as principal contractor, is**

**responsible for coordination and general supervision of all activities at the work site, including activities carried out by contractors, subcontractors and suppliers.** While all parties have a responsibility to promote worker safety, Definite Oil Field Services Ltd. recognizes its leadership in promoting worker health and safety on the basis that it has the greatest power to influence work site situations.

### Priority

Activities will be conducted on the basis that safety of all personnel is of vital importance, whether those personnel are employed by Definite Oil Field Services Ltd., a contractor, a subcontractor or a supplier.

### Recognition

The process of selecting contractors, subcontractors and suppliers, and the administration of contracts, will include recognition and support of good safety performance. Support and recognition based on good safety performance will also be provided by all employers to their employees.

### Improvement

Definite Oil Field Services Ltd., in cooperation with others within the industry, will promote methods and practices that have potential for improving safety performance.

## 1.3b Environmental Policy

### Environmental Policy

The protection of the environment and the conservation of our natural resources are fundamental to the Definite Oil Field Services Ltd. business philosophy. We take great pride in operating in a manner which is environmentally friendly and will make all efforts to conserve natural resources, through means of educating and leading by example. We will actively pursue opportunities to conserve natural resources by way of reduction, recycling and reuse.

Definite Oil Field Services Ltd. will plan its operations and activities in such a manner as to minimize the potential for adverse environmental impact and will make every effort to protect natural resources. Definite Oil Field Services Ltd. will operate in compliance with all laws and regulations.

Definite Oil Field Services Ltd. will make certain that all training programs are in place for employees and owner operators to ensure that the policies and procedures are understood so that they may be effectively implemented.

Management will develop appropriate standards and procedures and will monitor all operations to ensure compliance.

Every supervisor and manager is directly responsible for the implementation of suitable procedures, training programs and that the appropriate controls are in place.

All employees, owner operators, contractors, and visitors are responsible for working towards these principles at all times.

Travis Sharpe  
CEO



## 1.4 Health, Safety & Environmental Management System Audits

An OH&S audit is the process used to obtain a comprehensive and objective evaluation of the design and effectiveness of a safety program by obtaining valuable input from employees and others concerning the usability and practicality of the program. Audits evaluate the effectiveness of management's commitment and involvement, hazard identification control, rules and safe work practices, worker training programs, communication, incident reporting, and incident investigation procedures.

In order to remain COR Certified, a formal safety audits will be conducted once annually by an Enform approved, third party auditor. Copies of the completed audit will be provided to the Safety department, Branch Managers and Senior Management for review and subsequent discussion with owner operators and drivers at the next safety meeting. A copy of the audit shall be kept on file.

In the course of conducting audits, the auditor will observe work practices and worksite, conditions which may represent unsafe conditions. The auditor is obliged to make note of these issues and advise the Safety department of the activity in question. If a worker is at risk of serious injury, the auditor must advise the worker.

All audit deficiencies must be prioritized on an action list and all recommendations must be completed within a definitive time frame.

## 2.0 RESPONSIBILITY & ACCOUNTABILITY FOR HEALTH, SAFETY & ENVIRONMENTAL SYSTEMS

<b>Function</b>	To outline the responsibilities for the Company, supervisors, workers, contractors and visitors in the area of Health and Safety.
<b>Application</b>	All Definite Oil Field Services Ltd. employees and contractors
<b>Procedures</b>	As outlined in the Definite Oil Field Services Policy Statements, the Company has a responsibility to provide and be accountable for maintaining a safe and environmentally secure workplace. The Company, through active leadership, will strive to achieve that goal. However, the responsibility for a safe work place is not the company's alone but shared by senior management, management, supervisors, employees / owner operators and contractors.
<b>Senior Management &amp; Management Responsibilities</b>	<p>The senior management and management role is to insist on performance and behaviour that meets or exceeds the standards of the Company's safety program.</p> <p>Encourage employee involvement in safety by demonstrating management's commitment to safety.</p> <p>Ensure the operations of all Company employees, owner/operators and workers comply with all government and Definite Oil Field Services Ltd. safety requirements.</p> <p>Ensure accidents and incidents are reported and investigated and that corrective actions are taken.</p> <p>Ensure all workers have and utilize appropriate safety equipment.</p> <p>Ensure completion of adequate training for all employees/workers,</p> <p>Ensure all employees/workers are qualified to perform their job tasks.</p>
<b>Supervisor Responsibility</b>	One of the keys to any successful program is the role of the supervisors in bridging the gap between management and employees / workers. Some general guidelines that will help the functioning of the health and safety area include the following:

## 2.0 continued

- 1) Know and understand Company policies and practices included in this manual and regularly use them when teaching job methods or when orientating new employees or workers.
- 2) Be aware of unsafe conditions and acts, taking immediate and appropriate corrective action should it be necessary.
- 3) Always set a good example in the areas of safety and ensure that actions are consistent with Company requirements. This consistency will maintain workers interest in safety. This interest shall be fostered by arranging for regular safety meetings as described in Section 10.2.
- 4) Ensure that legislated requirements and Company policies are being complied with through the use of a regular inspection and job observation program.
- 5) Ensure that material safety data sheets are available (and current) to all workers.

**Employee  
Responsibility**

Each employee shall be made aware of all the key features of the safety program through information sessions, and by the immediate supervisor as they pertain to a particular job function. The employee shall ensure that a safe workplace is maintained by active participation in the safety program and through compliance with the safe practices contained in this manual. In the area of safety, the employee is often called upon to be responsible not only for his/her own safety, but also for that of his/her fellow employees. Keeping in mind the nature of the work and the potential hazards goes a long way in fulfilling that responsibility.

**Owner/Operator  
& Worker  
Responsibility**

Owner/Operators and their workers, who are directly supervised by a Company employee must be made aware of and comply with the contents of this manual.

Owner/Operators and their workers engaged in Company operations shall observe all safety practices and procedures contained in this manual and as required by Definite Oil Field Services Ltd.  
and must:

**2.0 continued**

- Be responsible for the safety of his employees and subcontractors.
- Immediately cease unsafe work practices when so directed by an authorized Company Representative
- Report all accidents (and near misses) regardless of severity

Owner/Operators and their workers engaged in operations shall observe all policies and procedures companies Definite Oil Field Services Ltd. works for.

**Visitor  
Responsibility**

Visitors shall not endanger the safety and/or security of Company facilities / operations and employees. Visitors shall comply with all posted regulations and procedures and must sign in at the office upon arrival and departure. All instructions given by the appointed supervising employee will be complied with once authorization has been granted to commence work.



## 2.1 Right to Refuse Unsafe Work

<b>Function</b>	To outline the responsibilities of workers in refusing unsafe work and the responsibility of management in responding to the concerns of the workers.
<b>Application</b>	All Definite Oil Field Services Ltd. workers
<b>Employer Responsibilities</b>	<p>It is the employer's responsibility to:</p> <ul style="list-style-type: none"> <li>• make each worker aware of hazards at the work site through training.</li> <li>• take all worker concerns seriously</li> <li>• investigate any and all hazards identified by workers</li> <li>• respond to a worker's concerns</li> <li>• eliminate the hazard or, if it can not be eliminated, minimize the hazard to within tolerable limits.</li> </ul>
<b>Worker Responsibility</b>	<p>It is a worker's responsibility to:</p> <ul style="list-style-type: none"> <li>• work safely following company safety procedures</li> <li>• identify any hazards in his or her surrounding, either potential or actual, in either a location, piece of equipment, procedure or action.</li> <li>• identify any hazards in other employee / workers surroundings</li> <li>• stop work or the work of others upon identifying the hazard</li> <li>• notify management of the hazard, first verbally and then in writing, that the piece of equipment, location, procedure or action is unsafe.</li> </ul>
<b>Procedure</b>	<p><u>Hazard Identification and Reporting:</u> Each worker, in conducting his or her duties, must be aware of the hazards that surround them. When a worker identifies a new hazard, they must stop the work, stop others from doing the work and verbally identify the hazard to their manager. If needed, the piece of equipment, location or operation must be locked out and tagged as per Definite Oil Field Services's lockout procedure (see Section 6.36). The operator needs to complete the hazard report form (see Section 11.3) detailing the concern about the equipment, location or operation and why it is unsafe.</p>

## 2.1 continued

Investigation: The Safety Manager, in conjunction with the site supervisor (or a worker representative from the joint safety committee where required) will conduct an investigation into the hazard, determine the legitimacy of the hazard and, if legitimate:

- develop a plan to eliminate the hazard or, if it cannot be eliminated, minimize the hazard to within tolerable limits.
- implement the plan
- convey in writing the plan to the worker that identified the hazard
- have the worker sign off on the new plan
- complete an incident report (near miss) and incident investigation report

If the investigation determines that the hazard is not legitimate, then management will notify the worker in writing that the hazard could not be substantiated, providing reasons why it cannot be substantiated, and have the worker sign off on the letter.

Appeal: Should the worker disagree with the findings of management (either that there was no hazard or that the plan to eliminate/minimize the hazard is insufficient), the worker may refuse to sign the plan or the letter.

The Safety Manager will review the documents and render a decision in writing to the Branch Manager and worker with supporting documentation on the decision.

Should the worker still disagree with the Safety Manager's decision, a provincial Workplace Health and Safety officer will be contacted and brought in to make a decision which will be considered final.

**Documentation**

Hazard Report Form

**Regulatory  
References**

AB	OH&S Act
BC	BC WCB Sec. 3.09-3.12
SK	OH&S Regulations Sec. 23-29

### 3.0 GENERAL RULES

#### 3.1 Corporate Standards

<b>Function</b>	To introduce general safety rules for Definite Oil Field Services Ltd. as a corporation. Division specific rules are outlined in individual sections of this manual, according to division.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Safety</b>	<p>Hazards are an inherent part of the transport industry and oilfield service industry. These hazards are due to the nature of the product and the hazards associated to providing the necessary services within the oilfield.</p> <p>Safety must be an important consideration in the design and construction of any production / servicing equipment. Particularly in the areas of truck construction, safety relief valves design / sizing, automation, valve selection and the relative placement of equipment.</p>
<b>Hazards</b>	<p>Employees, contractors and owner operators must be aware of the potential hazards involved in operations, and must exercise due caution in their daily work to prevent or minimize loss to persons, property and process. Some of the potential hazards are identified as follows:</p> <ul style="list-style-type: none"> <li>- Hydrocarbons are flammable when mixed with air; thus the lower explosive limits must be monitored in any building or confined space where workers will be required to enter.</li> <li>- Hydrocarbon vapours exclude air and thus produce an oxygen deficient atmosphere.</li> <li>- Materials used in, or associated with, production operations can be hazardous and must be handled properly (e.g. production chemicals).</li> <li>- High pressures used in production and operations are potentially hazardous when not properly controlled.</li> <li>- Moving equipment must be properly guarded when in operation and must be locked out before servicing.</li> <li>- Electrical equipment must be locked out prior to servicing.</li> </ul> <p>Equipment failures can and do occur. Proper maintenance, control and training can minimize the hazards and the consequences.</p>

## 3.2 Personal Conduct

<b>Function</b>	To outline the requirements for personal conduct from a safety, as well as a public image perspective.
<b>Application</b>	All Definite Oil Field Services personnel.
<b>Procedures</b>	Definite Oil Field Services Ltd. employees and owner operators (including their employees) <b>must at all times conduct themselves in a responsible and safe manner and will comply with company policy regarding the items covered below.</b>

### 3.2.1 Smoking

<b>Introduction</b>	<p>The effects of smoking on the health of smokers (and those exposed to passive smoke) have been well established. Cigarette smoking has been identified as the most important preventable cause of cancer and premature death &amp; disability in Canada.</p> <p>A smoke-free workplace is intended to cover all sources of Environmental Tobacco Smoke (ETS).</p> <p>In British Columbia, a smoke-free workplace is mandatory. Guideline "G4.81" of the B.C. OH&amp;S Regulation states:  <i>The employer must control the exposure of workers at any workplace to environmental tobacco smoke by:</i></p> <ul style="list-style-type: none"> <li><i>a) prohibiting smoking in the workplace, or</i></li> <li><i>b) restricting smoking to designated smoking areas or by other equally effective means</i></li> </ul> <p>Definite Oil Field Services Ltd. will comply with the B.C. OH&amp;S Regulation and further, intends to apply the policy to its entire operations in Western Canada.</p>
<b>Affects</b>	All Definite Oil Field Services Ltd. employees, Contractor Personnel, Subcontractors & Visitors while on premises owned, operated or leased by Definite Oil Field Services Ltd.
<b>Purpose</b>	To provide a safe workplace by prohibiting and controlling smoking in the workplace. The Smoking Policy is not intended to prohibit the exposure to mainstream tobacco smoke of an individual who chooses to smoke.
<b>Policy</b>	Smoking is prohibited in Definite Oil Field Services Ltd. owned rented or leased facilities.

## 3.2.1 Continued

Smoking is permitted in:

- "Safe Outdoor Location" - minimum 3 meters from building entrance / exit provided the area is safe from hazards (traffic, flammable materials, fire & explosion, etc.)  
Note: There is no obligation to provide amenities such as canopies, seating, etc.
- an "Indoor Room" (optionally provided at discretion of Jobsite Supervisor) - provided the room is structurally separated from other work or break areas; ensures no likelihood of ETS being re-circulated into work or non-smoking areas

The Smoking Policy encompasses:

- all sources of environmental tobacco smoke (ETS) including cigarettes, cigars, pipes and other forms of tobacco smoking materials

The Smoking Policy applies to:

- buildings owned, rented or leased by Definite Oil Field Services Ltd. for office, sleeping & living facilities
- camps owned, rented or leased by Definite Oil Field Services Ltd.  
Note: camps operated by a Contractor i.e. Drilling Rig company - will apply its smoking policy to that facility

The Smoking Policy implementation requires:

- Smoking Policy document posted in the facility
- Communications to workers and visitors
- Signs at entry / exit to the workplace
- Absence of ashtrays, cigarette butts or any other smoking materials

### Responsibilities

All Definite Oil Field Services Ltd. Contractor & Subcontractor Personnel

### Disciplinary Action

& visitors shall comply with Definite Oil Field Services Ltd. Smoking

Policy.  
Definite Oil Field Services Ltd. Personnel or Contract Personnel in breach of this policy will be subject to disciplinary action up to and including dismissal.

### 3.2.2 Pre Hire Drug & Alcohol Screening

Definite Oil Field Services Ltd. is committed to the safety and productivity of all operations on behalf of its owner/operators, employees, customers and the communities in which it operates.

Definite Oil Field Services Ltd. recognizes that the use of illicit drugs and the misuse of alcohol and medications could limit a contractor or employee's ability to properly do their Job and could have serious negative impact on the health and safety of themselves and others.

The purpose of this statement is to establish the policy for contractors, owner operators, and workers of Definite Oil Field Services Ltd.

concerning the manufacture, sale, possession, distribution, or use of illegal drugs during;

- Working hours
- In a manner while off duty that impairs on-duty work performance: or
- In a manner while in attendance at an official function or at an authorized Definite Oil Field Services work site that adversely affects the performance of the worker or may adversely affect the health or safety of any other person.

All owner operators, drivers, Swampers or workers must be tested for drugs and alcohol prior to employment. The tests must be arranged through an Definite Oil Field Services Ltd. office only. No arrangements should be made outside of an Definite Oil Field Services office.

The participant must pass both drug and alcohol screening, if they should fail any part of the drug and alcohol screening, that person may not be approved to work in the employment of Definite Oil Field Services

Trucking Ltd. until such time as the test has been passed.

If the participant fails and a re-test is required, this may only be arranged through an Definite Oil Field Services office only. No exceptions shall be tolerated.

Any owner operators, drivers, Swampers or workers who have failed the drug and alcohol screening, and are found working will be dismissed of their duties immediately and the owner of the unit (if applicable) will also be reprimanded for not following corporate policy.

### **3.2.3 Drug & Alcohol Random Quarterly Testing**

As a condition of employment with Definite Oil Field Services Ltd., the Company requires, on a quarterly basis, randomly selected owner/operators, drivers, Swampers and labourers to provide urine samples for chemical tests/analysis and submission of breath analysis.

The selection of participants is done by a Third Party company and is 100 random. Participants, without prior notice, will be instructed to complete these random tests at a time and location indicated by Definite Oil Field Services Ltd.

Owner/operators, drivers, Swampers and labourers have the right to refuse cooperation in the requested tests however; refusal to cooperate in such tests will be cause for disciplinary action up to and including immediate discharge.

### **3.2.4 Liquor & Drugs**

If any owner/operator, driver, Swamper, labourer or employees are in possession of, or under the influence of alcohol or illicit drugs, they will not be permitted to enter or remain on Definite Oil Field Service's site nor represent Definite Oil Field Services on any customer sites. Disciplinary action may result, up to and including immediate discharge.

Use of prescribed medication that may impair judgement or motor skills should be reported to the Branch Manager, Safety Department or Site Supervisor for recording and where necessary, adjustment of duties.

### **3.2.5 Facial Hair**

Facial hair will interfere with the effective sealing of respiratory equipment. For health and safety reasons facial hair (excluding a small trimmed moustache) is not permitted for any worker or contractor who does or may do work in an area where a toxic or oxygen deficient atmosphere may exist.

### **3.2.6 Scalp Hair**

Scalp hair must be trimmed short enough or be restrained by a net or other device so that it will not become entangled in rotating equipment or interfere with the effective sealing of respiratory protective or resuscitation equipment.

### **3.2.7 Horse Play**

Practical jokes, fighting, wrestling, or otherwise interfering with other workers can result in a serious injury and is prohibited.

### **3.2.8 Running**

Workers are not to run except in the case of an emergency.

### **3.2.9 Firearms**

No firearms or explosives are permitted on any Definite Oil Field Services Ltd worksite. Firearms shall not be carried in company vehicles (including equipment, pickups and owner/operated commercial trucks) while on business. Where flare guns are required for operational purposes, a site specific procedure shall be developed.



### 3.3 Respiratory Protective Equipment "Code of Practice"

<b>Function</b>	To outline the safety procedures for workers in areas where a respiratory hazard exists.
<b>Application</b>	All Definite Oil Field Services workers who may be subject to airborne contaminants in excess of defined Occupational Exposure Limits.
<b>Procedures</b>	Where danger exists from H <sub>2</sub> S (concentration exceeding 10ppm), reduced oxygen content of the atmosphere (18 or less oxygen) or from airborne toxic contaminants, approved self contained or supplied air breathing apparatus must be worn.
<b>Equipment For I.D.L.H.* Environment</b>	<p>The equipment must conform to the following criteria:</p> <ul style="list-style-type: none"> <li>- Provide full-face protection.</li> <li>- Maintain positive pressure in the face piece at all times.</li> <li>- Provide air capacity for at least 30 minutes.</li> <li>- Provide "low level" alarm (for self-contained units).</li> <li>- All hoses connecting the air supply must be a minimum 1/2" or 6.35 mm I.D. and a maximum 150' or 46 m in length.</li> <li>- Be fitted with a nosepiece inside the mask to reduce fogging up.</li> <li>- Remote supplied equipment must be fitted with an auxiliary supply (egress bottle) of reparable air of sufficient quantity to enable the worker to escape from the area in an emergency.</li> </ul>

#### \*I.D.L.H. Immediately Dangerous to Life and Health.

##### Equipment for Non I.D.L.H. Area

Air purifying respirators filter and remove specific contaminants from the air the user breathes. These respirators are not to be used in I.D.L.H. or oxygen deficient atmospheres.

There are two main types of air purifying respirators:

- 1) Mechanical filter
- 2) Chemical cartridge

### 3.4 Sanitation

<b>Function</b>	To outline requirements for sanitation at Definite Oil Field Services Ltd. operations
<b>Application</b>	All Definite Oil Field Services Ltd. personnel
<b>Procedures</b>	Cleanliness of both the work place and the individual is essential to good health.
<b>Requirements</b>	<p>The following are a number of requirements that will be followed in order to maintain a high standard of sanitation:</p> <ul style="list-style-type: none"><li>- Enclosed workspaces such as shower rooms, locker rooms, and lunchrooms are to be kept clean.</li><li>- Drinking water shall be clearly labelled.</li><li>- The common drinking cup is prohibited.</li><li>- Food is not to be stored or eaten in any toilet room or in any place where there is a possibility of contamination.</li><li>- Individuals should wash hands prior to eating to avoid contamination of food.</li><li>- Dirty clothing and footwear should be removed and left outside of office areas.</li><li>- Disposal containers for the disposal of waste food are to be emptied at least once a day.</li><li>- Individual hand towels or non-reusable sections thereof, preferably paper, are to be provided at each washing facility.</li><li>- An adequate supply of toilet paper should be provided in all restrooms.</li></ul>

### 3.5 Chemical Handling "Code of Practice"

<b>Function</b>	To ensure that workers are familiar with all aspects of the chemicals they may come in contact with during their work activities.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Procedures</b>	All workers are in actual or potential contact with numerous different chemicals during the course of a normal workday. For that reason, the Federal and Provincial Governments developed the Workplace Hazardous Materials Information System (W.H.M.I.S.), an educational program designed to teach workers the best methods to deal effectively with chemicals.  1) A hazard

Chemical ceiling limit reference: AB OH&S Code Part 4, Section 26  
Scheduler 1 Table 2

#### 3.5.1 Training

All within the operation are required to take part in W.H.M.I.S. training programs which include:

- Introduction
- Health hazards module
- Site specific training
- How to compile an accurate chemicals list
- Development of a material safety data sheet (M.S.D.S.)

### 3.6 Care & Use of Monitoring / Detection Equipment

<b>Function</b>	To outline requirements for the use and maintenance of monitoring / detecting equipment.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Procedures</b>	<p>Equipment used for monitoring and detection is essential in order to ensure worker safety. It is imperative that this equipment is both used and maintained properly in order to ensure that readings given are correct. Incorrect readings could lead to injury or death, or unnecessary expenses.</p> <p>Monitoring / Detection equipment is used in a number of applications:</p> <ul style="list-style-type: none"> <li>- H2S</li> <li>- Os Levels</li> <li>- Lower Explosive Limits</li> <li>- BTEX (benzene, toluene, ethyl benzene, xylene)</li> </ul>
<b>Use</b>	<p>Equipment shall only be used by qualified Definite Oil Field Services personnel.</p> <p>Manufacturers operating instructions shall be followed. Care must be taken in handling equipment so as not to cause damage.</p>
<b>Maintenance</b>	<p>Equipment shall be cleaned each time after use. Manufacturer instructions must be followed for maintenance and calibration procedures.</p>

### 3.7 Vehicle Safety

<b>Objective</b>	To outline the requirements for vehicle maintenance and safe vehicle operation, as well as to promote defensive driving.
<b>Application</b>	All drivers of Definite Oil Field Services Ltd. <b>Company pickups.</b>
<b>Discussion</b>	Any Definite Oil Field Services Ltd. employee to whom a vehicle is assigned is responsible for the maintenance of the vehicle and any auxiliary equipment.  All drivers must be trained and licensed to drive their vehicles and any suspension of these privileges must be reported immediately. Failure to do so may result in disciplinary action.

#### 3.7.1

##### Vehicle Safety Equipment

**First Aid Kit** - a first aid kit is required in all Definite Oil Field Services vehicles, and must meet the legislated needs for the job task (i.e. if supervising a job the kit must be adequate for the total worker count).

**Flares and Warning Devices** - all company vehicles will be equipped with flares / advance warning devices such as reflective triangles. These warning devices should under normal conditions be visible at 150 m (500'00") and must comply with current C.S.A. standards.

**Fire extinguishers** - (Minimum of 5 lb.) are required on all company vehicles.

All vehicles must carry a tow rope, tow strap, or cable of sufficient strength to tow the vehicle and load. Nylon ropes and tow ropes with chain ends are not acceptable.

All vehicles will also be equipped with a survival bag containing a minimum of the following; booster cables, flashlight (with spare batteries), rain suit, survival candles, matches, gloves and a blanket. In addition, extra clothing and high-energy non-perishable foods should be carried in field vehicles during winter months.

#### 3.7.2

##### Vehicle Accident Reporting

All motor vehicle accidents will be reported to the Safety Supervisor or Safety Manager immediately. Accidents will be investigated by the Safety Manager to determine basic and underlying causes.

A copy of the incident report, photographs and supporting documentation will be given to the Compliance and Safety Administrator for insurance claim handling, if applicable.

### 3.7.3

#### **Windshields And Headlights**

Windshields should be free of cracks in the driver's line of sight and kept clear of the build up of contaminants on the inside. Insurance claims for windshields must be submitted through the Compliance and Safety Administrator.

Headlights shall be used at all times while the vehicle is in motion. Use of headlights during day light hours has been shown to significantly reduce accidents.

### 3.7.4

#### **Seat Belts**

Seat belts will be worn at all times by all the occupants of company vehicles. It is the responsibility of the driver to ensure that all occupants are secured by a seat belt prior to the vehicle being in motion. No passenger shall be allowed to travel in any part of a vehicle that does not have properly attached seat belts.

No tools, materials or other objects shall be carried loose in the passenger compartment.

### 3.7.5

#### **Speed Limits**

Observe posted speed limits. These limits are set for ideal conditions; adjust your speed to suit the road and weather conditions. On company property the speed limit is 10 km/h unless otherwise posted. Remember, when operating an Definite Oil Field Services Ltd. vehicle you are representing the company, therefore, govern yourself accordingly.

### 3.7.6

#### **T.D.G.**

All hazardous materials must be transported in accordance with the Transportation of Dangerous Goods Act and Regulation.

### 3.7.7

#### **Pre & Post Safety Check**

Vehicles shall be checked on a regular basis for safe operational reliability. The Vehicle Operational & Safety Checklist should be completed and submitted to the Safety Department monthly for the vehicle maintenance file. A walk around safety check should be done prior to driving each time and should be conducted approximately every 1.5 to 2 hours on pavement and every 1 to 1.5 hours on gravel. This task should be conducted as follows:

- Pull completely off the road into a safe location.
- Begin inspection by walking down driver's side of unit, against the flow of traffic.
- Physically check each tire's pressure.
- Visually check for oil / coolant leaks.

**3.7.7 Continued**

- Check all wheels, wheel nuts, feel hubs for excessive heat and check the oil levels in the sight glass(s).
- Clean windshield, lights and licence plate as required.
- Complete a thorough overall visual inspection of the unit, looking for any defects or anything conspicuous.
- Check oil and coolant levels on each fuel up, or sooner if it deem required.
- Ensure that all equipment mounted or affixed to the unit is safe from coming off or falling off.

**Vehicle Operational & Safety Checklist****Date:****Mileage:****Unit#**

Item#	Check	S or X	Comments
1	Engine Coolant & System		
2	Engine Oil		
3	Brakes & Fluid Level		
4	Lights		
5	Horn		
6	Tire Pressures & Spare		
7	Battery Function		
8	Windshield Condition		
9	Wipers & Washer Fluid		
10	Tire Condition		
A	First Aid Kit		
B	Fire Extinguisher		
C	Flares and Triangles		
D	Survival Pack		
E	Flashlight		

Make a thorough check of all of the above noted items, and note any required repairs, mark 'S' for satisfactory and 'X' for unsatisfactory items.

Checked by:

Repaired by:

Date:



**3.7.8****Parking**

Vehicles shall be backed in to parking stalls at all Definite Oil Field Services operations.

**3.7.9**

**Unsafe to drive  
Due to Mechanical  
Conditions  
Policy**

The driver is responsible for the use of Definite Oil Field Services vehicles and he/she must, at all times, be satisfied that the vehicle is in safe working condition. Any deficiencies noted must be brought to the attention of his / her Manager immediately.

Where the Manager is unavailable, it is the driver's responsibility to apply appropriate judgement concerning the roadworthiness of the vehicle. The Branch Manager is ultimately accountable that vehicles are maintained in good working order, that drivers are performing pre and post driving inspections, and that accurate records of vehicle fitness and maintenance are being kept. Drivers cannot be required to drive a vehicle they feel is unsafe.

**3.7.10**

**Unsafe to Drive  
Due to Weather  
Conditions**

The driver is responsible to ensure that Definite Oil Field Services vehicles are only operated when it is safe to do so. When the weather conditions are questionable, the driver is required to bring the situation to Management's attention. Where a Manager is unavailable, it is the driver's responsibility to apply appropriate judgement concerning the road and weather conditions. The Manager is ultimately accountable that vehicles are not being driven when driving conditions are unsafe and that weather and road conditions are being assessed prior to departure. A driver cannot be required to drive a vehicle when he / she feels road or weather conditions are unsafe.

**3.7.11**

**Recommended  
Practices**

Avoid driving when fatigued, regardless of hours worked. Plan travel to minimize driving between dusk and dawn. Avoid using a hand-held mobile phone while driving. Always drive defensively.

**3.7.12**

**Defensive  
Driving**

All drivers must drive defensively in order to ensure maximum protection for themselves, fellow workers and the public. Defensive driving includes the following:

- Yielding the right-of-way.
- Making concessions to other drivers.
- Constant awareness of hazards.

## 3.7.12 continued

- Anticipation of potential incidents and taking precautionary actions.

**The following are some tips for defensive driving:**

- Adjust the seat so you're 10 to 20 cm (4 to 8 inches) from the lower rim of the steering wheel but able to press the pedals firmly. Sit up straight.
- Fasten your seatbelt snugly. In addition to its safety factor, a snug belt will help keep you sitting erect, with less back fatigue on long runs.
- See that rear-view mirrors are correctly set for you.
- Use your eyes - keep them moving ahead, to the mirrors, to the sides and they will give you advance warning of distant situations that can quickly become immediate emergencies.
- Always leave yourself an "out" - space for possible evasive action in adjoining lanes, front, rear or shoulder.
- Watch the car in front and also the lights of the car ahead of it for extra time in stopping.
- Learn to anticipate potential accidents. An expert driver "expects" the car following the bus to suddenly swerve around it into his lane.
- Use your horn whenever you're not sure the other driver sees you. The idea that a good driver doesn't have to use the horn is a dangerous fallacy.
- At night, reduce speed about 15 km/h (10 mph) below your usual daytime speed.
- Watch ditches especially during dawn and dusk for wildlife, which could potentially enter the roadway. Reduce speed in marked wildlife crossing areas.
- Realize, as pro drivers do, that you have passed the peak of your efficiency after five or six hours at the wheel. Allow for it, as the pros do, by slowing down and taking it easy.

## 3.7.12 continued

**The following are some cellular telephone safety tips to observe while driving:**

- Get to know your wireless telephone and its features such as speed dial and redial.
- When available use hands free devices.
- Position your wireless phone within easy reach.
- Suspend conversation during hazardous driving conditions.
- Do not take notes or look up telephone numbers while driving.
- Do not engage in stressful or emotional conversations that may be distracting.

**3.7.13****Passenger(s)**

All passengers traveling to work sites in an Definite Oil Field Services vehicle must have a minimum of H2S Alive and must be pre-approved by Management.

**3.7.14****Radios**

All vehicles must be equipped with two radio communications, with all the appropriate channels pre-programmed.

**3.7.15****Towing /  
Extracting**

All drivers that require extracting or are going to assist in the extracting of another unit must notify Dispatch / Supervisor prior to commencing operations. All tow ropes, tow straps, or cables must be confirmed that they are of sufficient strength prior to connecting and commencing the tow of the vehicle / load. Nylon ropes and tow ropes with chain ends are not acceptable.

Ensure the road way is controlled by use of mechanical devices such as flares or triangle, or by a person(s) controlling traffic oncoming. Ensure the connections are secure and there is no chance of slipping off. Slowly take up the slack in the tow rope or sling and apply an even pull. Do not jerk the tow rope or sling as the connection may get compromised. Upon successful extraction contact Dispatch / Supervisor to update.

**3.7.16****Hours of Service**

All operators of Definite Oil Field Services Ltd. commercial vehicles over 1 ton, with a GVW exceeding 5,000kgs, must comply with the provisions of the National Safety Code. They must understand the "Hours of Service" restrictions that may be applicable on a daily basis, and must maintain and submit log book records as required by law. It is Definite Oil Field Services Ltd.' company policy for all commercial drivers to complete logs.

### 3.7.16.1 Hours of Service British Columbia

#### Daily Hours:

A carrier must not permit a driver to drive, and a driver must not drive:

- More than 13 hours driving following 10 hours off duty, at least 8 of which must be consecutive.
- After 14 hours on duty following 10 hours off duty, at least 8 of which must be consecutive.

#### Exemptions:

A driver may exceed the on-duty period by not more than 2 hours in the case of adverse driving conditions provided the trip could be completed within the regulated hours under normal conditions.

A driver may, in an emergency, exceed the time limits in order to complete a trip or reach a destination that provided safety for the occupants or for other users of the road or for security of the vehicle and its load.

#### Accumulated Hours:

A carrier must not permit a driver to drive, and a driver must not drive unless they are in compliance with one of the following schedules:

- 70 hours of on-duty in 7 consecutive days
- 120 hours of on duty in 14 consecutive days, provided the driver takes at least 24 consecutive hours off duty before each 70th hour.

### 3.7.16.2 Hours of Service Alberta

- You must always have 10 hours off duty, at least 8 consecutive, prior to your driving shift.
- You must never drive more than 13 consecutive hours.
- You must never drive after being on duty for 14 hours.
- Two sleeper berth times can be added together to equal 10 hours off (no less than 4 hours).
- Uninterrupted Sleeper Berth and Off-duty time can be added together to achieve 10 hours off.

### 3.8 Weather Extremes / Requirements

**Function** To outline procedures and information regarding weather and temperature extremes to provide a safe and comfortable working environment.

**Application**

All Definite Oil Field Services Ltd. personnel.

**Procedures**

#### Winter Survival

A favourable attitude together with a reasonable amount of foresight will be sufficient for most everyone to overcome any situation that may arise relating to severe winter conditions. Those of us who drive in north-western Canada under any and all conditions should be prepared. The most serious situation can be overcome if the following points are taken into consideration:

A person's state of mind at the moment they are faced with real trouble is most important. Do not make a foolish decision such as to attempt to walk for help unless it is very close at hand. Remember that it is a scientific fact that once a person becomes chilled and blood circulation begins to slow, the ability to think rationally becomes weaker.

It is extremely important to have adequate clothing. This means a complete wardrobe from head to foot. Generally speaking, most people living in our areas have heavy clothing particularly those who take part in winter sports. Carry this equipment in your car once winter arrives.

The possibility of your engine stopping always exists. If you are out on the road and this should happen, a dangerous situation can be overcome by having a few candles on hand. Roll the window down slightly in your vehicle and light the candle. The heat that is given off will be sufficient to keep you from freezing.

Food rations. A person can survive several days without food, particularly if water is available to drink, in most areas no one will be stranded long enough that they will starve to death. Have on hand whatever food you think is adequate, but remember, it does not rate in importance with some of the above mentioned items.

When travelling in isolated areas, make sure that someone knows approximately where you are and when you expect to return.

Always remember that you will be missed fairly soon and consequently it is better to stay with your vehicle and let help come

## 3.8 continued

to you than vice versa. Consider the possibility of an aircraft making a search for you and do what you can to make yourself seen. For example, keep the snow clear from the top of your vehicle for easy spotting from the air and if materials are on hand, send up smoke signals.

Never proceed into what could be a rugged trip without a good vehicle. A snow shovel, tire chains, and sleeping bag should also be considered. Winter driving on back roads demands snow tires.

Never, under any circumstances, keep the engine of your vehicle running when parked without making sure that fresh air is coming into the cab. Carbon Monoxide poisoning has killed many people. Park facing the wind.

### **Working in Hot Conditions**

Effective measures must be taken to protect workers from heat stress disorders if it is not reasonably practical to adequately control indoor temperatures, or where work is done outdoors. Suitable monitoring equipment will be provided if workers are concerned about their thermal condition.

#### **Heat Stress Disorders**

These occur when a body cannot sweat fast enough to get rid of heat. If unchecked, high body temperature can cause vital organs to fail, sickness, and even death. There are three common heat disorders:

Heat Rash - Hot, humid environments where the skin is wet for prolonged periods of time can result in tingling and burning of the skin, and a red, itchy rash. Treatment includes cool showers, thorough drying, and calamine lotion. Prevention includes keeping the skin dry, showering often, and wearing cotton clothing to pull moisture away from the body.

Fainting - Workers who faint should be brought to a cool place to lie down. A physician should be consulted if fainting reoccurs.

Heat Cramps - Heavy sweating can drain a person of salt and cause painful cramps in the stomach, arms and legs. Cramps may occur suddenly - at work or after hours. When heat cramps occur, move the victim to a cool area, loosen clothing, and give cool salted water (one teaspoon of salt per gallon of water) to drink. If cramps persist, provide first aid and take victim to a doctor.

## 3.8 continued

Heat Exhaustion - Occurs when the body's cooling system cannot keep up with heat stress and the body becomes dehydrated. Symptoms include heavy sweating, cool / moist skin, body temperature greater than 38°C, weak pulse, or low blood pressure. Victims may be tired, weak, clumsy, upset or confused and may show signs of thirst, panting, and blurred vision. When heat exhaustion occurs, move victim to a cool area, loosen clothing, and give cool, salted water (one teaspoon of salt per gallon of water) to drink. Heat exhaustion can lead to heat stroke so victims should be provided with first aid and taken to a doctor.

Heat Stroke - Develops when all water and salt available for sweating is depleted. Body temperature may rise to above 40°C and the skin will be hot, dry and red. Symptoms include strange behaviour, weakness, confusion, fast pulse, headaches, dizziness, fainting, or convulsions.

Note: **Heat Stroke Can Kill.** Victims must be taken to a hospital immediately. During transport:

- Remove excess clothing.
- Fan and spray body with cool water.
- Give sips of cool, salted water.

**Prevention**

Engineering Controls: Should be used if workers must frequently work indoors under hot conditions.

The following are suggestions for limiting heat stress in this way:

- Remove heat sources from work area by using isolation, relocation, redesign or substitution.
- Air condition to cool workplace.
- Use spot cooling for hot areas and work sites.
- Use local exhaust to remove heat from hot work processes.
- Insulate hot equipment and surfaces to contain radiant heat.
- Block sun's rays with screens or awnings.
- Quickly and effectively fix problems that create hot conditions - such as steam leaks.
- Cover or contain heat sources - such as steaming tanks, vats and drains.
- Reduce hot work by using labour saving devices.
- Automate or replace hot processes.

## 3.8 continued

Fans: Fans can increase airflow and reduce humidity that will cool the body. If air temperature is at or above body temperature fans will expose the body to more hot air and increase the risk of heat stress disorders.

Administrative measures: The supervisor should implement the following controls for reducing heat stress:

- Provide adequate supplies of drinking water and encourage frequently drinking small amounts of cool water (one cup every 15-20 minutes) to replace water lost in sweat.
- Advise workers to salt food well. Do not use salt tablets.
- Provide training for recognition and treatment of heat disorders.
- Move pregnant employees away from hot work areas.
- Require the wearing of light coloured, lightweight, loose fitting cotton clothing.
- Schedule strenuous work for cooler times of the day.
- Where practical, have workers set their own work pace.
- Consider workers with special needs.
- Acclimatize workers, to hot conditions by gradually increasing the time spent in hot work over a one-week period.

### **Measuring Risk of Heat Stress**

Regular thermometer readings are not a suitable measure of heat stress risk. Factors such as air temperature, humidity, airflow, and radiant heat must be taken into account. Methods for measuring all these factors are available and where heat stress becomes an issue Definite Oil Field Services Ltd. will assess and implement a program for dealing with heat stress. Supervisors are advised to attempt to implement an appropriate rest break schedule to avoid heat stress by taking into account both workload and the factors mentioned above.

### **Working in Cold Conditions**

Exposure to cold temperatures occurs frequently while working outdoors during the winter. In a cold environment, body heat must be conserved to maintain the core temperature at normal levels and to ensure an adequate blood flow to the brain and extremities. Feelings of cold and discomfort should not be ignored, since these may be early warning signals. The effects of cold are such that problems can occur before the worker is aware of them. Over-exposure to cold may also affect judgement. People should not work alone in order to allow them to observe each other for early signs of frostbite or hypothermia. Even temperatures above freezing can cause problems, especially if the person is wet and exposed to the cold and wind for a long period of time. Also important to consider is that workers can become fatigued earlier



## 3.8 continued

due to the need to produce more body heat and due to the bulk or weight of the extra clothing which is worn in cold conditions.

### Health Problems

The following are health problems that can occur as a result of exposure to cold:

- 1) Frost Bite - Symptoms include loss of sensation and cold, pale, or waxy skin. Treat victim by warming the frostbitten part immediately by immersing in warm water for 20-30 minutes. Do not rub and be careful to avoid burns due to loss of sensitivity in the frostbitten skin. If feeling does not return to area then get medical aid.
- 2) Trench Foot / Immersion Foot - Symptoms include intense pain, swelling, and discolouration of the foot due to long immersion in cold water. (Note that water temperature does not need to be below freezing to cause trench foot). Treat victim by warming and drying feet, preventing further exposure, and getting medical aid. To help prevent trench foot, footwear should be comfortable, not too tight, waterproof and dry.
- 3) Hypothermia - Symptoms include cold extremities, which are numb and clumsy; severe shivering; reduced mental alertness with irritability and lack of concentration and unusual or bizarre behaviour (Note that shivering stops in severe hypothermia). Treat victim by removing from the cold and warm by wrapping in warm blankets. In severe cases, immerse in warm water at 38°-40°C or wrap in a blanket with one or two stripped warm people (their body heat will warm the victim). Contact medical aid for advice and assistance immediately. Hypothermia can result in LOSS OF CONSCIOUSNESS, COMA, and DEATH if not treated.

### Prevention

- 1) Environmental Measures
  - Steps should be taken to protect workers from wind due to the cooling power of wind that results in a lower equivalent temperature than the actual temperature when there is no wind.
  - Heated areas should be provided.
- 2) Personal Measures
  - Diet - Workers in cold environments consume more calories. A diet high in fat and carbohydrates may help maintain body temperature. Warm drinks should be taken during rest

## 3.8 continued

- breaks and enough fluids should be consumed to replace fluid lost through breathing and perspiration because dehydration increases the risk of hypothermia.
- Clothing - A three-layer system of clothing is the most effective. The inner layer should be wool or chloral fiber to absorb body moisture and keep it away from the skin. The second layer should be wool which insulates by trapping air around the body. The third layer should be 100 cotton to protect inner layers from dust, dirt, wind, and moisture. Proper hand and foot wear is essential and should have removable insulated linings to allow them to be dried daily. Clothing that has become wet should be changed (workers should have a change of clothing available). Snow should be removed from outer clothing before entering a warm environment in order to keep clothes from getting wet from melting snow.
- Rest Breaks - A schedule for regular rest breaks in a heated area for duration of not less than 10 minutes should be established to allow workers to warm up. Outer clothing should be removed to prevent perspiration while indoors, which may cause chilling when exposed to cold again.

**Cautions**

- Workers with health conditions that affect normal body temperature or circulation should avoid working in the cold (e.g. Reynaud's disease, diabetes, or thrombophlebitis).
- Workers who have previously suffered from frostbite are at a greater risk.
- Loose, bulky clothing worn for warmth is susceptible to getting caught on moving equipment or machinery.

### 3.9 Working Alone

<b>Objective</b>	To outline and provide options to eliminate hazards associated with working alone.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Discussion</b>	<p>Working alone means the performance of any work function by a worker who (a) is the only worker for that employer at that workplace at any time, and (b) is not directly supervised by his or her employer, or another person designated as a supervisor by his or her employer at any time.</p> <p>Working alone is seen as a distinct health and safety issue, which may affect the following people:</p> <ul style="list-style-type: none"> <li>- Workers on-call.</li> <li>- Workers working after hours or weekends.</li> <li>- Workers whose work requires them to travel from one work site to another.</li> <li>- Workers who normally don't work alone who through some unusual circumstances find themselves alone on the job.</li> </ul>
<b>Confined Space Prohibition</b>	In situations involving anyone entering a confined space working alone is prohibited. (Refer to Part III, Section 28.0, Confined Space Entry "Code of Practice")
<b>General Policy</b>	<p>Due to a variety of circumstances in which a worker might be required to work alone, each Definite Oil Field Services operation is required to develop its own procedures in which to deal with the risks associated with working alone.</p> <p>The following outlines the steps in developing such a procedure:</p> <ol style="list-style-type: none"> <li>1) Identify Risks: Identify situations in which a worker might be required to work alone and identify the job tasks that must be performed.</li> <li>2) Evaluate the potential risk using severity, frequency and probability. The following risks should be considered. <ul style="list-style-type: none"> <li>- The time and distance the worker is from sources of help in an emergency.</li> <li>- The length of time the worker is out of contact with supervision.</li> </ul> </li> </ol>

## 3.9 continued

- The degree of access to communication.
- The presence of hazards associated with the work being performed.
- The presence of hazards associated with the environment in which the work is done.

The total risk associated with a situation increases if any one of the risk factors is high and increases rapidly when two or more factors act together.

3) Develop and implement a plan using the 4-T's (terminate, tolerate, treat, or transfer)

The following are some examples that may be used within a standard operating procedure to control hazards associated with working alone:

- Schedule potentially hazardous work for times when supervision and help are available.
- Provide adequate staffing for hazardous tasks that must be performed at odd hours or in remote location (i.e. assign a supervisor, set up a buddy system, or provide a helper).
- Coordinate work so no one is ever alone (i.e. coordinate so that several tasks in the same area can be performed at the same time).
- Require workers to check in and out together so that no one is ever left behind alone.
- Provide a means of emergency communication (i.e. two-way radio, cellular telephones, wire-based telephones).
- Develop a system of periodically checking the well being of the worker. Checks will be made at such intervals and by such means as are appropriate to the nature, hazard, and circumstances of the work.

Monitoring of the performance of the plans associated with working alone will be done during annual audits.

### 3.10 Hearing Conservation and Noise

<b>Function</b>	To outline the procedures required to satisfy Provincial Noise Hazard regulations.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Procedures</b>	
<b>Sound Level Surveys</b>	All Definite Oil Field Services Ltd. operations shall have a "baseline" sound level survey performed and subsequently, on a regular basis, a follow up survey using sound level monitoring equipment to determine if and where noise levels exceed the maximum allowable. Where noise levels in any location (buildings, shops, motors, etc.) exceed 85 dBa all access points to these areas must be posted with signs indicating that "Hearing Protection is required".
<b>Noise Control</b>	<p>Where high noise levels are identified appropriate steps must be taken to minimize the hazard.</p> <p>Engineering controls (e.g. substituting less noisy equipment, isolation of the noise source and/or the operator).</p> <p>Administration controls (e.g. worker rotation).</p> <p>Personal protective equipment.</p>
<b>Hearing Protection Equipment</b>	<p>Ear plugs / muffs shall be made available by Definite Oil Field Services at all worksites. The equipment supplied must have an N.R.R. (noise reduction rating) of at least 24 dBa (e.g. bilsom 2318 muffs, ear plugs, etc.).</p> <p>Equipment must not under any circumstances be altered and all personnel must be informed about the hazards associated with excessive noise exposure and the reasons for wearing the hearing protection provided.</p> <p>Supervisory staff is responsible for ensuring the use of protective equipment. No person is permitted to enter a designated area without wearing hearing protection.</p>

### 3.11 Clothing and Personal Protective Equipment

<b>Function</b>	To outline the requirements for selection, use and maintenance of personal protection equipment.
<b>Application</b>	All Definite Oil Field Services personnel, visitors, customers, clients and contractors.
<b>Procedures</b>	<p>Injuries to a worker's health can occur through contact with physical / chemical hazards. Appropriate approved personal protective equipment suitable for the work performed and the nature of the hazard must be worn in order to eliminate or reduce the effects of the hazard. It is the responsibility of all workers to ensure that the proper personal safety equipment is worn when appropriate in accordance with this policy. Management will train all employee's in the use, care, limitations and maintenance of all PPE.</p> <p>The following basic personal protective equipment shall be worn by all workers or visitors at all times outside of the office, locker room, and lunchroom areas of the Company operational facilities or when making a pickup or delivery at a customer's place of business. All PPE must be CSA approved.</p>
<b>Hard Hats</b>	<p>Hard hats must be approved and certified under CSA Z94.1M-1977 or ANSI equivalent (Z87.1-1986), and be made from non conducting high impact plastic. Standard or wide brim styles are acceptable.</p> <p>Hard hat shells / webbing shall be replaced when wear or damage indicates. It is recommended practice to replace hard hats after four years of service.</p> <p>Managers should keep a minimum of four Definite Oil Field Services hard hats in</p>
<b>Clothing</b>	<p>the office for use by visitors and guests.</p> <p>All persons entering an Definite Oil Field Services worksite must be fully clothed.</p> <p>Pants must cover the legs and shirts must cover the arms and button at the wrist. Clothing that is loose, ragged or torn, bracelets, necklaces or neckties must not be worn near rotating or moving equipment.</p> <p>All clothing and undergarments should be made of natural fibre material. Nylon and other synthetic fabrics can melt or burn when exposed to fire. In addition, nylon clothing poses a risk due to the static electricity it may create.</p> <p>All persons entering process / oilfield related area worksite must wear approved coveralls. Coveralls must be made of a fire retardant material (Nomex IIIA or equivalent). Outerwear worn over coveralls, including rain gear, must also be made of a fire retardant material.</p>

## 3.11 continued

**Eye Protection**

C.S.A. approved Class 1 (Z94.3-M88) protective eyewear complete with side impact shields must be worn at all times while conducting Definite Oil Field Services operations. Wearing of contact lenses while on an Definite Oil Field Services worksites is prohibited unless required for medical reasons. In this case, written authorization from the worker's supervisor is required.

Protective eyewear shall be inspected and cleaned before each wearing, and as required while working to insure adequate visibility is maintained at all times. Care should be taken when storing protective eyewear to prevent damage to the lens surface. Anti-fog cleaning solution should be used at all times.

Protective eyewear (standard and prescription) will require the following:

- Be C.S.A. Class 1 approved.
- Provided with fixed side-shields.
- Provided with scratch resistant clear plastic or polycarbonate lenses.

Managers or site supervisors must ensure an adequate supply of safety glasses (suitable for wear over prescription glasses) are kept in the plant office for the use of visitors. Lens cleaning stations with anti-fog cleaning solution should be provided in locker room and lunch room areas.

Managers should advise employees that proper care of protective eyewear is their responsibility.

**Hand Protection**

Appropriate gloves must be used based on the task being performed.

**Footwear**

C.S.A. approved, Class 1 (green o- triangle), protective footwear will be worn on all worksites. Wearing of steel toed running shoes will not be allowed. Boots should be equipped with steel toe and shank, and provide protection to the foot above the ankle. Safety boots include steel toed rubber boots, winter boots and leather boots.

**Additional PPE**

Additional personal protection equipment (PPE) will be worn by all individuals where a specific risk or hazard exists. These shall include, but not be limited to the following:

## 3.11 continued

**Face shield and Goggles**

Additional C.S.A. approved eye protection or face shields must be worn when the nature of the work is such that it may result in injury to the eyes or face. Some examples are:

- Chipping, cutting, or breaking stone or concrete.
- Chipping or scraping paint or metal.
- Grinding, cutting or welding.
- Handling chemicals.

Types of eye and face protection are shown in the table at the end of this section.

**Hearing Protection**

Whenever noise hazards exist on a worksite (levels exceeding 85 dBa), all persons entering the area must wear C.S.A. approved hearing protection. Protective equipment shall be appropriate for the nature and level of noise hazard.

If the noise hazard is transient in nature, disposable ear plugs would normally provide adequate noise reduction. If the noise hazard is a constant factor in the place of work, ear muffs affixed to the worker's hard hat would provide superior protection.

**Chemical Protection**

Workers handling hazardous chemicals shall wear additional protective clothing, gloves, and face protection suitable for the nature of the chemical

**Classes of Eyewear**

<i>Class</i>	<i>Description</i>	<i>Protection</i>
1	Spectacles	
2*	Eye cup Goggles	Cover eyes and fit tight to the face
3*	Cover Goggles (mono frame)	Fit over glasses and tight to the face
4	Welding Helmets	Have varying degrees of shading for protection
5	Welding Hand Shields	Face shields with handle, held in front of the face
6	Face Shields	Protect entire face and part of the neck
7	Hoods	Cover head and shoulders

\* Protect against dusts, liquids, vapours and fumes.



### 3.12 Hydrogen Sulphide Safety

**Function** To outline the procedures for personnel safety and safe handling of Hydrogen Sulphide (H<sub>2</sub>S) gas, by identifying potential sources of exposure, training employees and developing and applying safe work procedures.

**Application** All field and office operations personnel.

**Procedures** Within the resources industry H<sub>2</sub>S is an ever present potential hazard even when servicing "sweet" product.

All employees must be aware of the properties and toxicity of H<sub>2</sub>S and know how to protect themselves from its effects.

#### Properties

Colour: H<sub>2</sub>S is a colourless gas.

Odour: Very offensive, commonly referred to as a "rotten egg" smell.

Vapour 1.189 (Air 1.0) H<sub>2</sub>S is heavier than air.

Density:

Explosive 4.3 - 46 by volume in air.

Limits:

Auto Ignition 260 C (500 F).

Temp:

Solubility: 2.9 (2.9 g/100 ml of water).

#### Toxicity

H<sub>2</sub>S gas is measured in parts per million (ppm) by volume in air. 1 gas concentration -10,000 ppm.

1 ppm = 1/10,000 of 1 - gas can be smelled strongly.

10 ppm = 1/1,000 of 1 - Occupational Exposure Limit (O.E.L.) for 8 hours of exposure.

20 ppm = 1/500 of 1 - Ceiling O.E.L. at or above this concentration workers must wear respiratory protective equipment.

100 ppm = 1/100 of 1 - Loss of sense of smell in 2 -15 minutes, may burn eyes and throat and cause headache and nausea.

NOTE: A worker may not be exposed to H<sub>2</sub>S at a concentration exceeding its ceiling limit of 15ppm

## 3.12 continued

200 ppm = 2/100 of 1 - Sense of smell lost rapidly, throat and eyes burn.

500 ppm = 5/100 of 1 - Loss of sense of reasoning and balance. Respiratory disturbance in 2 -15 minutes, resuscitation required.

700 ppm = 7/100 of 1 - Immediate unconsciousness, causes seizures and loss of control of body functions, breathing will stop and death will result if not rescued and resuscitated promptly.

1,000 ppm = 1/10 of 1 - Causes immediate unconsciousness and cessation of breathing.

### Identification Of Worksites

All worksites where concentrations of H<sub>2</sub>S can or do exceed 100 ppm must be identified at the entrance with signs stating "DANGER H<sub>2</sub>S", "AUTHORIZED PERSONNEL ONLY" as well as the legal description of the lease. In addition any such lease must where required by legislation be fenced and In all cases have a wind direction indicator.

### Entry onto Unmanned Sour Leases

Before any person enters a worksite where the concentration of H<sub>2</sub>S could exceed 20 ppm the following conditions must be met:

- 1) The atmosphere in and around the facility located on the worksite must be controlled within the limits for occupational exposure set out by legislation:
  - 10 ppm - 8 hour exposure limit
  - 15 ppm -15 minute exposure limit
  - 20 ppm - Ceiling limit (cannot be exceeded at any time without respiratory protective equipment being worn).
- 2) When work such as non routine maintenance or entry into a confined space is to take place in an area where the occupational exposure limits are or may be exceeded, respiratory protective equipment must be worn, and safety standby person(s) in place. A prejob safety meeting must be held and documented.

General inspections of equipment or routine operating requirements such as meter readings that do not involve any direct contact (i.e. no opening of open ended valves etc.) do not require a safety standby, but should be covered by a written site specific procedure.

### 3.13 Workplace Hazardous Materials Information System (W.H.M.I.S.)

F

<b>Function</b>	To outline the requirements for handling hazardous materials, and the training required under the Workplace Hazardous Materials Information System (W.H.M.I.S.).
<b>Application</b>	All personnel whose duties involve exposure to hazardous and toxic materials in the workplace
<b>Procedures</b>	<p>The Workplace Hazardous Materials Information System is one which provides a Canada wide hazard communication system for transmitting information regarding hazardous materials in the workplace.</p> <p>This is accomplished through training sessions which describe the safe handling of hazardous materials in the workplace, identification of the hazard symbols and material safety data sheet information, and the correct personal protective equipment for certain hazards.</p> <p>Relationship to other legislation:</p> <p>Three sets of legislation are written for different purposes.</p> <ol style="list-style-type: none"> <li>1) Transportation of dangerous goods. <ul style="list-style-type: none"> <li>- To protect the public.</li> <li>- To use when the hazardous goods are mobile.</li> <li>- W.H.M.I.S. does not apply.</li> </ul> </li> <li>2) Hazardous Waste <ul style="list-style-type: none"> <li>- To protect the environment.</li> <li>- To govern the disposal of hazardous waste.</li> <li>- No labels or M.S.D.S. required.</li> </ul> </li> <li>3) W.H.M.I.S. <ul style="list-style-type: none"> <li>- To protect the employee.</li> <li>- To use when the hazardous goods are in storage.</li> </ul> </li> </ol>
<b>Purpose</b>	<p>W.H.M.I.S. is intended to:</p> <ul style="list-style-type: none"> <li>- Protect workers by providing information about hazardous materials in the workplace.</li> <li>- Set consistent standards for the provision of hazard information.</li> <li>- Controlled products are used, stored, and handled at the worksite In accordance with part 29 of the OH&amp;S Code.</li> </ul>

## 3.13 continued

**W.H.M.I.S.**

W.H.M.I.S. or the Workplace Hazardous Materials Information System is a Canada wide hazard communication program to transmit to the employees all relevant information about chemicals in the workplace. The program defines the requirements for labelling, material safety data sheets and worker education.

The W.H.M.I.S. system has several key areas briefly described here.

- 1) It requires that Canadian and importing suppliers of hazardous materials provide hazard information, in the form of labels and M.S.D.S.'s to their Canadian workplace customers, as a condition of sale.
- 2) It requires employers to ensure that all materials included in the chemical list are adequately labelled at the work site and that M.S.D.S.'s are available for those products.
- 3) It requires that employers provide worker education, in order that the workers can apply the information provided to protect their health and safety.
- 4) It allows valid confidential business information to be withheld from disclosure.

The W.H.M.I.S. program is trying to solve the problems associated with:

- Having unlabelled chemicals at work site.
- Inadequate information provided to employers and workers by the product suppliers, in respect to the identity and hazardous properties of materials used at work sites, and the precautions to be used when handling them.
- Lack of awareness by employers and workers about the chemicals they are using.
- Potential adverse consequences of inconsistent requirements between Canadian jurisdictions.

Examples of supplier labels and hazard symbols can be found on the next page.

## 3.13 continued

**Scope**

W.H.M.I.S. provides criteria for determining whether a product is hazardous enough to be classified as a "Controlled Product". If so:

- A label will be displayed on each package or container of controlled product in the workplace.
- A material safety data sheet (M.S.D.S.) will be available to workers for every type of controlled product.
- An educational program will teach workers to understand and use the information on the labels and M.S.D.S.

**Responsibilities**

Suppliers must classify and label products and provide M.S.D.S.'s.

**Employers**

Have to ensure the labels are in place, M.S.D.S.'s are complete, up to date and available, and must train workers to understand the labels and M.S.D.S.'s.

**Employee**

Will use this information to protect themselves from dangers of injury or illness which may be caused by hazardous materials in the workplace.

**3.13.1****Labels**

- Worker's first indication that a product may be hazardous.
- All controlled products must be labelled.
- Provides information (i.e. immediate and long term hazards).
- Details of required personal protective equipment.
- Appropriate first aid treatments.

\* Refer to M.S.D.S. for more specific information.

Two types of labels:

1) Supplier Label: Attached by supplier.

Content:

Product Identifier

- Name used to identify product.
- Has to match M.S.D.S.

Supplier Identifier

- Name of supplier or distributor.
- Reference to M.S.D.S.
- Hazard symbols.

## 3.13.1 continued

## Risk Phrases

- Additional information about potential hazards.

## Precautionary Measures

- Instructions for auditing risks associated with the product.

## First Aid Measures

- Instructions for immediate treatment of a person who has been exposed to a controlled product.

## 2) Workplace Labels: Attached at the workplace. Applied if:

- The supplier label is damaged / missing.
- The product is produced for use in the workplace.
- The product is transferred from the suppliers container into another container.

## Content

## Product Identifier:

- Same as product name on M.S.D.S.

## Safe Handling Information

- Should include hazard information
- Reference to M.S.D.S.

## 3.13.2

**M.S.D.S.**

## Material Safety Data Sheets (MSDS)

- A document containing detailed information about the potential hazards of a product, safe handling instructions and emergency procedures.

## Employer's Responsibility

- Obtain complete, up to date M.S.D.S. from suppliers for all controlled products at the workplace.
- Make sure that copies of M.S.D.S.'s are readily available to workers.
- Train workers in the content, purpose, significance and location of M.S.D.S.'s.

Note: M.S.D.S.'s must be readily available to workers and accessible at any time.

M.S.D.S.'s and hazardous material inventories must be audited on an annual basis to ensure the information is current and applicable

### **3.13.3 Workplace Identifiers**

In some cases it is more appropriate to use a means of identification other than a label to indicate the presence of a hazard. Examples of these other "Workplace Identifiers" are warning signs, placards and colour codes.

### **3.13.4 Hazardous Waste**

- Normally exempt under W.H.M.I.S., hazardous waste requires a label, placard, sign or special container to indicate that it is a hazardous waste.
- Process or reaction vessels, pipes, tank cars, trucks or conveyers carrying controlled products must have some sort of identification such as colour coding to indicate their contents.
- Controlled products which are not in a container, or intended for export, or which will soon be labelled require that a placard be posted showing the same information as would appear on a workplace label.

## 4.0 LOSS CONTROL

<b>Function</b>	To describe Definite Oil Field Service's approach to loss control.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel / owner operators and workers:
<b>Procedures</b>	<p>Loss control is defined as anything done to reduce loss from ib. risks of doing business.</p> <p>The five goals of loss control at Definite Oil Field Services include the following:</p> <ol style="list-style-type: none"><li>1. Identify all loss exposures and hazards.<ul style="list-style-type: none"><li>- inspections, investigations, near miss reports, safety meetings, group discussions</li></ul></li><li>2. Evaluate the risk.<ul style="list-style-type: none"><li>- frequency, severity, probability, and risk potential</li></ul></li><li>3. Develop a plan.<ul style="list-style-type: none"><li>- terminate, tolerate, treat, or transfer the loss exposure</li></ul></li><li>4. Implement the plan.<ul style="list-style-type: none"><li>- standards, training, engineering, procedures</li></ul></li><li>5. Monitor the performance of the system.<ul style="list-style-type: none"><li>- measure performance</li><li>- evaluate the progress</li><li>- review and revise</li></ul></li></ol>



#### 4.1 Definition of Worksite Hazards and Loss Exposures

<b>Function</b>	To define and describe potential worksite hazards and loss exposures.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel, owner operators and workers
<b>Procedures</b>	<p>Worksite hazards are those substandard conditions and substandard acts or practices that have a potential for accidental loss.</p> <p>Worksite hazards and loss exposures can be physically identified. They usually can be seen, heard or smelled.</p> <p>They are often identified through inspections, investigations, near miss reports, safety meetings and group discussions.</p>
<b>Substandard Acts/ Practices</b>	<ul style="list-style-type: none"> <li>- Operating equipment without authority</li> <li>- Failure to warn</li> <li>- Failure to secure</li> <li>- Operating at improper speed</li> <li>- Making safety devices inoperative</li> <li>- Using defective equipment</li> <li>- Failing to use PPE properly</li> <li>- Improper loading/unloading</li> <li>- Improper placement</li> <li>- Improper lifting</li> <li>- Improper position for task</li> <li>- Servicing equipment in operation</li> <li>- Horseplay</li> <li>- Under influence of alcohol and/or illicit drugs</li> <li>- Failure to follow procedure/policy/practice</li> <li>- Failure to identify hazards and risks</li> <li>- Failure to check/monitor</li> <li>- Failure to react/correct</li> <li>- Failure to communicate/coordinate</li> </ul>

## 4.1 continued

**Substandard  
Conditions**

- Inadequate guards or barriers
- Inadequate or improper protective equipment
- Defective tools, equipment or materials
- Congestion or restricted action
- Inadequate warning system
- Fire and explosion hazards
- Poor housekeeping/disorder
- Noise exposure
- Radiation exposure
- Temperature extremes
- Inadequate or excessive illumination
- Inadequate ventilation
- Presence of harmful materials
- Inadequate instructions/procedures
- Inadequate information/data
- Inadequate preparation/planning
- Inadequate support/assistance
- Inadequate communications hardware/software/process
- Road conditions
- Weather conditions

## 4.2 Hazard Identification / Recognition

<b>Function</b>	To outline requirements and programs for the identification of workplace hazards.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel, owner operators and workers
<b>Procedures</b>	<p>The identification of workplace hazards will be the responsibility of all managers, employees, owner operators and workers of Definite Oil Field Services Ltd.</p> <p>Any person who recognizes or identifies a hazard has the responsibility to report it to a supervisor or manager.</p> <p>The identification may be made by:</p> <ul style="list-style-type: none"> <li>- Site inspections.</li> <li>- Incident / accident investigations.</li> <li>- Vehicle and equipment inspections.</li> <li>- Analysis of specific job descriptions and safe work procedures.</li> <li>- Discussions with workers</li> <li>- Observing specific jobs</li> </ul> <p>After being notified of a substandard act or condition, it is the responsibility of the supervisor or manager to correct the substandard act or condition, determine the root cause that allowed it to exist and implement a plan to control its reoccurrence.</p>
<b>Recognition</b>	<p>Identification and recognition of workplace hazards can have the same meaning, but often hazards identified are overlooked and go unreported or unrepaired. Recognition of a hazard should take place <b>BEFORE</b> it has affected people.</p>

### 4.3 Risk Evaluation, Risk Management, and Control Activities

<b>Function</b>	To provide guidance in assessing the potential severity and probability of loss along with controlled activities that will reduce the risks associated with Definite Oil Field Services's business.
<b>Application</b>	All Definite Oil Field Services Ltd. operations
<b>Aim</b>	<p>Identification of a hazard and determination of the potential or real risk is only a means to an end. The hazard must be eliminated or at least controlled to reduce its effects on the working population.</p> <p>In all industries there are loss exposures associated with doing business. The aim of loss control is to reduce the risk to an acceptable level. This level must be acceptable to several stakeholders including the following:</p> <ul style="list-style-type: none"> <li>- Provincial and Federal Government Agencies</li> <li>- Definite Oil Field Services Ltd. and Definite Oil Field Services's Shareholders</li> <li>- Definite Oil Field Services's Insurance Underwriters</li> <li>- The Environment</li> <li>- The Worker</li> </ul>
<b>Procedures</b>	<ol style="list-style-type: none"> <li>1. In order to control a hazard or loss exposure the risk potential must first be determined based on the severity, frequency and probability. (See Section 4.6 - Hazard Assessment)</li> <li>2. Develop a plan to control the risk <ul style="list-style-type: none"> <li>- Terminate the risk. This is the preferred control option. Loss exposures associated with doing business can't always be eliminated.</li> <li>- Treat the hazard. Most commonly used to reduce inherent risk. <ul style="list-style-type: none"> <li>- Engineering changes</li> <li>- Setting standards</li> <li>- Installing safety devices, guards, and barriers</li> <li>- Personal protective equipment</li> <li>- Training, education, supervision</li> </ul> </li> <li>- Tolerate. Managers need to decide when risk does not warrant any treatment and it will be tolerated.</li> <li>- Transfer the risk. This is sometimes done through contracting, sub-contracting, leasing, or insuring. Managers must be aware that not all financial and legal liabilities can be transferred by this means.</li> </ul> </li> </ol>

## 4.3 continued

3. Implement the plan and measure / monitor its progress
  - Use tangible items to put the plan to work
  - Recommendations
  - Responsibilities
  - Due dates
  - Follow-up
  - Monitor / measure the results
  - Commend, correct and acknowledge personal, Branch, District, Regional and Corporate performance.

#### 4.4 Preventative Maintenance Programs

<b>Function</b>	To outline minimum standards for preventative maintenance programs.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Overview</b>	<p>Preventative maintenance programs are usually specific to the equipment and moving parts.</p> <p>In general, all preventative maintenance programs at Definite Oil Field Services must include the following components:</p> <ol style="list-style-type: none"><li>1. A list of all operating equipment</li><li>2. A critical parts list</li><li>3. A maintenance schedule in accordance to the manufacturer's specifications or our own knowledge of the equipment operating conditions.</li><li>4. Inspection and maintenance records.</li></ol> <p>Vehicles that fall under National Safety Code regulations, must comply with the Definite Oil Field Services Ltd. Commercial Vehicle Maintenance Program. (Part II, section 10)</p>

#### 4.5 Hazard and Operability Assessments (HAZ-OPS)

<b>Objective</b>	To outline the requirements for site specific hazard and operability assessments.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Discussion</b>	A hazard and operability assessment (HAZ-OP) is to be completed when designing process upgrade and new facility or operation. The HAZ-OP ensures that the design and operation of a facility or operation utilizes adequate controls to mitigate process upsets which could result in impacts on the environment or create unsafe working conditions.
<b>Responsibility</b>	The Safety Manager will coordinate and ensure HAZOP's are completed for all applicable projects and that a copy of the HAZ-OP is maintained on site.

## 4.6 Hazard Assessment

- Objective:** The purpose of the Hazard Assessment process is to identify and understand risks in the workplace. Understanding the potential for loss is a critical component to developing acceptable controls to avoid incidents, injury and losses before work begins.
- Application:** All Definite Oil Field Services Ltd. operations.
- Discussion:** The Hazard Assessment Program has been completed to meet the following goals:
- To identify and prioritize hazards associated with critical tasks within all operations.
  - To evaluate existing controls in place to prevent loss associated with critical tasks.
  - To identify areas where additional controls may be warranted to control hazards.
  - To provide a training tool for new and existing workers.
  - To establish a Company specific program that can be easily updated when changes to the operations are taking place.
- Steps:** The Hazard Assessment Program consists of the following 7 steps:
- Inventory jobs at each branch / operation.
  - Inventory tasks within each job.
  - Evaluate each task by reviewing the frequency, severity and probability of loss to identify the critical tasks.
  - Break each task into steps to identify hazards in each step.
  - Identify loss exposures for each step.
  - Identify improvements that can be made to each step: eliminate, combine, rearrange, simplify, reduce, substitute or relocate.
  - Develop Standard Operating Procedures to control critical tasks.
  - Use measures to eliminate or reduce hazards as much as possible
  - By using an engineered control, administrative control or ensure that All PPE is used to reduce the risk as much as possible.
- Each step is clearly described in the following sections of this document.F
- After any hazard assessment is completed each and every worker That are affected, must be informed of the hazard and the measures Taken to reduce the risk.



#### 4.6.1 Job Inventory

- Purpose:** The purpose of providing a job inventory is to identify all jobs with the operation, so all potential hazard exposures can be reviewed. Examples of jobs with Definite Oil Field Services's operation include: driver / operator, Swamper / operator, E.H. &S. co-ordinator, sales, branch administrator, branch manager, operations manager, etc.
- Steps:** List all jobs at the branch / operation on a job inventory worksheet. A copy is provided in the attachments.

#### 4.6.2 Job Task Inventory

- Purpose:** To define all tasks performed by each job function at a branch / operation to form the basis of hazard identification.
- Steps:** Identify all tasks performed by each job function. List these tasks on the task inventory worksheet. A copy is provided in the attachments.
- Tasks should primarily reflect the "hands-on" work associated with each occupation.
  - Tasks typically include multiple steps but should not be too broad in scope. Examples of common tasks at Definite Oil Field Services include pre-trip inspection, driving truck, loading/unloading truck, loading/unloading vacuum truck, flushing vacuum truck, steaming, etc.,

#### 4.6.3 Hazard Assessment and Environmental Aspects

- Purpose:** The purpose of this procedure is to describe the process used by Definite Oil Field Services to identify the environmental aspects and health and safety hazards of activities, services, and products that it can control or for which it can be expected to have an influence. This procedure provides a method to determine if those aspects / hazards are considered to be significant. It is a system for ranking aspects / hazards relative to each other to determine which ones deserve greater attention and higher priority and which ones deserve less attention and lower priority.
- Scope:** All operations controlled by Definite Oil Field Services and its subsidiaries will determine the environmental aspects and health and safety hazards that are related to the activities, products or services that they can control or over which they can reasonably be expected to have an influence.

## 4.6.3 continued

On-site contractors are considered to be within Definite Oil Field Services's control for the purposes of this procedure, and therefore within the scope of the Environment, Health and Safety Management System for aspects / hazard identification.

**Responsibility  
of  
Safety Manager:**

The Safety Manager is responsible for ensuring this procedure is followed; to identify environmental aspects and health and safety hazards and establish those that are significant for the operation. The Safety Manager will also ensure that there are procedures in place so that changes at the operation or activity, that may affect the aspects / hazards and the significant aspect / hazards lists (i.e. generate new aspects / hazards), are assessed and the lists revised as appropriate

**Definitions:**

**Environment:** Refers to the biophysical surroundings in which Definite Oil Field Services operates, including air, water, land, natural resources, vegetation, wildlife, humans, and their interrelations.

**Environmental Aspects:** Refers to an element of each operation's activities, products or services that can have a beneficial or adverse impact on the environment. This may include emissions to air, releases to water, contamination of land, waste management, use of raw materials or natural resources.

**Health and Safety Hazards:** Source or situation with a potential for harm in terms of injury or ill health, damage to the workplace environment, or a combination of these.

**Environmental Impacts:** Any change to the environment, whether adverse or beneficial, wholly or partially resulting from the operation's activities, products or services. Impacts can be negative, e.g. pollution of air, land or water (surface or groundwater); harm to humans, loss of habitat, loss of vegetation or wildlife; or positive, e.g. reclamation of disturbed land, creation of fish habitat, replenishment of fish or wildlife stocks.

**Health and Safety Impacts:** Any injury or damage to a person's health, or well-being.

**Significant Environmental Aspect:** An environmental aspect that has, or can have, a significant environmental, business or stakeholder impact. It may be referred to as an "environmental hazard".

## 4.6.3 continued

Significant Health and Safety Hazard: A health and safety hazard that has, or can have, a significant health and safety, business or stakeholder impact. It may be referred to as a "health and safety aspect".

Significant Impact: For the purposes of this procedure, any adverse change to the operation in which the risk associated with it is considered to be higher than a particular threshold value that is arbitrarily chosen.

**Procedure(s):**

The following sources of information can be used in the identification of environmental aspects/health and safety hazard assessments:

- annual environmental or monitoring reports;
- regulatory requirements;
- corporate policies and procedures;
- environment and safety industrial investigation reports;
- process diagrams or operating manuals;
- incident/spill, upset, corrective action reports;
- tours of the site's operations;
- discussions with operating personnel;
- models / pictures of the operation (if available);
- environmental risk assessments or impact statements;
- voluntary programs (e.g. Industry Codes of Practice);
- minutes of environmental and safety committee meetings;
- facility safety and environmental inspection reports; and
- internal checklists and/or corporate environmental/health and safety audits.

Identifying the Organizational Boundaries of the Operations

It is important to identify the boundaries of Definite Oil Field Services's organizational responsibilities.

These do not solely exist on the boundaries of Definite Oil Field Services's internal operations, but also

extends to Definite Oil Field Services's handling and transportation of goods.

Identifying the Activities associated with Operations

The activities associated with Definite Oil Field Services's operations should be identified. Activities may

result in, or have the potential to result in, actual or physical releases to, disturbances to or other interactions with the environment. They are the likely sources of the majority of Definite Oil Field Services's environmental aspects. Activities may result in, or have the potential to

result in injury or ill health. These are likely source of the majority of Definite Oil Field Services's health and safety hazards.

Another way to identify activities is to identify the products associated with operations.

Activities in this regard either consume products (/e., are inputs) or generate them (/e., outputs).

#### 4.6.3 continued

A final way to identify activities is to identify the services associated with operations. Services are the provision of advice or the exercise of influence over someone else's activities in an operation.

Aspects can be either negative or positive. Positive aspects can be associated with such activities as reparation, remediation, reclamation, planting trees, etc. Hazards are always considered to be negative.

Sources of information that are valuable to this step include:

- input/output flow diagrams;
- primary material flow diagrams; and
- written or other descriptions of major systems or primary processes that make up the operation, process and instrument diagrams, etc.

#### Identifying Aspects / Hazards

Aspects / Hazards should be identified for Definite Oil Field Services's operations of each activity that it can control and/or over which Definite Oil Field Services can be expected to have an influence (e.g., on-site contractors).

Aspects are interactions with the natural environment or workplace (e.g. a release, an emission). They are not a failure in a system (e.g. the break in pipe which led to the release). Hazards are a source or situation with a potential for harm in terms of injury or ill health, damage to the workplace environment, or a combination of these.

Aspects / Hazards cover both normal and abnormal operating conditions. Abnormal situations include start up, shut down and upset situations. On site, emergency situations which may lead to a significant impact on the environment, people's health or safety or major damage to corporation property should be considered.

This information should be recorded in the Excel worksheet and maintained by the Environmental Health & Safety Manager.

A list of potential aspects / hazards can be found in Appendix I.

#### Identifying Potential Impacts

An impact is a change in either the natural environment or workplace or any injury or damage to a person's health, or well-being which has a consequence or repercussion. Whether or not an aspect / hazard will have a significant impact will depend on a number of factors, including:

- the ability to recover from the incident;
- the amount of first aid/treatment that is required;
- the potential exposure to the hazard;
- what has been released (e.g., a toxic or hazardous substance);

#### 4.6.3 continued

- the quantity that has been released;
- where it has been released (e.g., into a fish bearing stream); and
- when it has been released (e.g., during spawning).

Determining if an aspect / hazard is considered significant or not will also depend on verifying the integrity of existing controls in place (i.e., liners, berms, maintenance practices, personal protective equipment, etc.).

For each identified aspect / hazard the full range of impacts needs to be considered that cover the general categories of environment, stakeholders and business.

Specifically, aspects / hazards may impact the:

- air (e.g., air contamination);
- water (e.g., groundwater or surface water contamination);
- land (e.g., soil contamination, loss of soil productivity, aesthetic concerns);
- flora (e.g., threat to vegetation);
- fauna (e.g., threat to wildlife (animals, birds, reptiles, amphibians and fish); and
- humans (e.g., health and safety concerns),.

A list of suggested "impact statements" is attached to this procedure as Appendix II. For consistency in description of possible or actual impacts, and to assist in data entry and searches related to the database, the consistent use of the same key words is strongly recommended.

It is likely that more than one impact will be associated with each aspect / hazard. Both actual (in the most probable case) and potential (in a credible worst case) impacts are to be identified. In both cases, consider those impacts which are within the realm of possibility (those things that have happened in our industry, our company or in our operation).

Impacts should be identified for both the Most Probable and Worst Case scenarios. A Most Probable scenario represents a case where operational controls are in place to mitigate or control an aspect / hazard or impact from occurring. A Worst Case scenario represents a case where there are no operational controls in place to mitigate or control an aspect / hazard or impact from occurring.

#### Management of Significant Aspects/Hazards

For each aspect, the relevant operational controls should be identified. Operational controls can be categorized as one of three categories (Engineering Controls, Administrative Controls, and PPE):

- procedural controls (Administrative);
- competent employee (Administrative);
- training and awareness (Administrative);

#### 4.6.3 continued

- process monitoring and control functions (Engineering);
- inspections (Administrative);
- containment systems (Engineering);
- process monitoring and control functions (Engineering);
- preventive maintenance (Administrative);
- hard hats, safety glasses, steel toe boots, etc. (PPE); and
- design features (Engineering)

This information should be recorded in an Excel spreadsheet and maintained by the Safety Manager.

When recording information regarding operational controls, such controls should be identified as completely as possible (e.g., procedure name and number).

#### Evaluation of the Significance of Impacts (Risk Ranking Matrix)

A Risk Ranking evaluation is performed on the impacts that are associated with each environmental aspect or safety hazard in order to determine if an aspect or hazard is "significant".

The significance of impacts is determined, by utilizing criteria based approach as outlined below - In general, significance or risk is a function of probability (likelihood) and consequence (severity).

The formula for this is: Likelihood x Severity = Risk Ranking Significance

$$\text{Severity} \times \text{Likelihood} = \text{Risk Ranking}$$

Likelihood is a product of Frequency of Exposure and Probability Loss. Frequency of Exposure is assigned a value from 1 to 4 that indicate the degree of exposure to which the impact occurs (if actual) or may be expected to occur (if predicted). For safety related issues frequency is how often the activity takes place. Probability of loss is also assigned a value from 1 to 4 that indicate the probability of the impact taking place based on previous occurrences.

## 4.6.3 continued

A matrix below displays the range of possibilities given different frequencies of exposure and probabilities of loss. This value forms the Likelihood.

Likelihood Matrix

<b>Frequency of Exposure x Probability Loss = Likelihood</b>
--

**FREQUENCY OF ACTIVITY:**

- 4 Frequent (hourly / daily)
- 3 Occasional (weekly / monthly)
- 2 Rare (a few per year)
- No significant exposure (once every 1-2 years)

**PROBABILITY OF LOSS:**

- 4 Might well be expected ("Happens often")
- 3 Occurs but not expected (include near misses)
- 2 Has happened rarely
- 1 Only remotely possible (1 in 1 000 000 - "Once in the life of the facility")

4	4	8	12	16
3	3	6	9	12
2	2	4	6	8
1	1	2	3	4
Probability of Loss	1	2	3	4
Frequency of Exposure				

## 4.6.3 Continued

Severity (Consequences) is assessed and then assigned a value from 2 to 6 that indicate the level of impact an aspect or hazard has based on the criteria.

## SEVERITY

LEVEL	SEVERITY CATEGORY	HEALTH	SAFETY	ENVIRONMENTAL IMPACT	FINANCIAL LOSS	PUBLIC IMPACT (OR PERCEPTION)	LEGAL
Level 3	6	One or more fatalities	Catastrophic-external disaster response	Major environmental impact to neighbouring receptors (public streams, vegetation, air, ground water). Ecosystem impaired	Extensive damage & extended downtime (Corporate)	National headlines, disastrous public relations	Prosecution
Level 3	5	Serious injury - permanent disability, life - threatening occupational illnesses	Serious threat-internal disaster response	Off-site release or repeated non-compliance issues With potential for significant adverse impact	Major downtime (Division / Area)	Local headlines, bad community public relations	Suspension of facility
Level 2	4	Serious injury -disabling occupational illnesses	Significant threat - emergency response (external agencies involved)	Contained within the facility - large impact or repeat non-compliance issues	Minor damage or downtime (Department)	Some media attention, bad local public relations	Suspension of process
Level 1	3	Temporary disability- minor injuries, acute health effects	Important occurrence-potential emergency response	Contained within facility-minimal impacts regulatory reporting required	Minor damage or downtime (Individual processes) (\$1K-\$5K)	Impact on directly affected individuals only	Order/Penalty
Level 1	2	First Aid or less	Noticeable occurrence-reportable	Contained within facility with no adverse impact-below reportable levels	Minor damage & no downtime (<\$1K)	Minimal to none	Warning
	1	N/A	N/A	N/A	N/A	N/A	N/A

Note: the severity categories (health, safety, environment, etc.) are only relative to themselves.

Significance (Risk Ranking)

Using the table below, Risk Ranking scores will range from 2 to 96 with 2 being the least risk and 96 being the greatest (a 1 is used if the risk is not applicable). Any risk score between 54 and 96 is deemed to be a Critical Risk (Class A) and any score between 36 and 48 is deemed to be Serious Risk (Class B). The impact of an aspect is determined to be significant if it falls into either of these categories. Risk Rankings of scores between 18 and 32 - Marginal (Class C) and scores between 2 and 16 - Minimal Risk (Class D) are deemed to not be significant,



## 4.6.3 Continued

**RISK RANKING (RR) = 2 TO 96 IN INCREASING CRITICALITY**

16	32	48	64	80	96
12	24	36	48	60	72
9	18	27	36	45	54
8	16	24	32	40	48
6	12	18	24	30	36
4	8	12	16	20	24
3	6	9	12	15	18
2	4	6	8	10	12
1	2	3	4	5	6
Probability	2	3	4	5	6
	Severity (Consequence)				

## Potential Risk Scores:

<b>54 – 96</b>	=	Critical Risk (Class A) significant
<b>36 – 48</b>	=	Serious Risk (Class B)
<b>18 – 32</b>	=	Marginal (Class C)
<b>2 – 16</b>	=	Minimal Risk (Class D)

**CLASS A****Critical Risk:** Imminent Danger Exists

Shut down the operation immediately and correct the concern

Class A indicates the immediate potential for serious injury / extensive damage of major equipment, material, or significant impact to the environment.

**CLASS B****Serious Risk:**

Identify the hazard / risk with a flag, sign, tag, etc. and provide intermediate precautions.

**Inform all individuals about the risk / hazard and report immediately. Initiate corrective action as soon as possible. (Ensure correct procedure / safe work practices are used)**

Class B indicates potential for injury or illness, resulting in temporary disability, property damage that is disruptive to the operation but not extensive or environmental impacts that pose a serious risk to the company. These risks need to be addressed.

**CLASS C****Marginal Risk:**

Make everyone who could be exposed aware of the risk / hazard, as required.

**Ensure proper protective equipment is used as a minimum and re-evaluate for alternative controls and current control effectiveness.**

**Employees, contractors and owner operators should be aware of the operational controls designed to mitigate the potential environmental risks.**

## 4.6.3 Continued

**CLASS D Minimal Risk:**  
**Potential for minor loss but does not represent a significant injury or damage potential. This will only be considered as corrected when all individuals have been notified of the hazard.**

Review / Updates of Environmental Aspects / Health and Safety Hazards List

The identification of significant environmental aspects / health and safety hazards assessment is an ongoing process. The list of the environmental aspects / health and safety hazards is to be kept current, documented and presented to senior management, annually. This should take place as part of the management review process.

Once the initial identification of aspects / assessment of hazards is completed, the justification for the addition / deletion of a significant environmental aspect on an ongoing basis will be documented as part of this process. Additions or deletions may arise as a result of incidents, new operations or processes and additional controls (engineering, administrative and PPE), the change management process or the successful completion of objectives and targets.

If there are no other changes, the aspects / hazards list is to be reviewed once three years and documented.

It is the responsibility of the Manager, Environment and Safety to ensure that any updates to the environmental aspects / health and safety hazards list are communicated throughout the company in a timely manner.

Maintenance of Aspects and Significant Aspects Database

The aspects / hazards lists will be maintained within the Definite Oil Field Services Ltd. head office.

Senior management of the operation will review and approve the information as part of their management review of the operation's Environmental, Health and Safety Management System.

**References** ISO 14001 -4.3.1 Environmental Aspects  
OHSAS 18001 -4.3.1 Planning for Hazard Identification,  
Risk Assessment and Risk Control

#### 4.6.4 Critical Task Analysis

- Purpose:** To review the steps involved for each critical tasks, analyze the loss exposures, review existing controls and recommend additional controls.
- Steps:**
- Observe the task being completed to identify steps involved / discuss the task with those employees most frequently performing it to identify steps.
  - Pinpoint loss exposures associated with each step. Review losses associated with people (injury, illness), equipment (hazards associated with tools, equipment contributing to loss of productivity), material (chemical exposures, loss of productivity) and environment (temperature, housekeeping, impacts to water, air or soil).
  - Identify existing controls that address loss exposures. Examples include PPE, signage indicating hazardous area, testing (noise, benzene), alarms (levels, H2S, LEL), secondary containment and operating procedures.
  - Identify if an improvement can be made to this step in the critical task. There are seven ways to make an improvement: eliminate, combine, rearrange, simplify, reduce, substitute, relocate.(See DNV book, section 8 page 16 and 17 for more details)
  - Prioritize the implementation of the improvement.

This information should be documented using the critical task analysis worksheet. A copy is provided in the worksheets.

#### 4.6.5 Develop Controls through Standard Operating Procedures (SOPs)

- Purpose:** To determine the actions and precautions that should be taken while performing a critical task to prevent a potential loss or minimize its effect if it were to occur. These actions and precautions must be documented and reviewed by existing and new staff.
- Steps:** All SOPs must be prepared in the standardized Definite Oil Field Services format. This format includes specific sections that must be considered and details on how current the document is and revision activity. A list of SOPs required within the operation is based on the results of the Hazard Assessment and should be prepared and submitted to the Environment, Health and Safety Coordinator.
- SOPs include the following sections:
- Introduction
  - A statement of purpose or application for the SOP
  - A discussion on health and safety including hazard identification, PPE, fire or explosion controls, work permits, MSDS, specific about tools and equipment, and details about the site health and safety plan for off-site work.
  - A discussion on the operating plan including orientation to the procedure, relevant drawings, set up steps, job steps, shut down steps and completion/record keeping steps. In all cases, the improvements that were identified in the previous section should be incorporated into the steps of the task.
  - **More information on SOPs can be found in OPP-C-001, Preparation and Use of Standard Operating Procedures. (Appendix A)**
- All operations will have a SOP binder with the Hazard Assessment documentation at the front. A table of contents must be provided for the procedures. Evidence that employees have read, understood and demonstrated an acceptable level of competency should also be available either in the SOP binder or in employee files. One method of doing this would be to have employees and their supervisors initial and date a copy of the table of contents at each SOP entry once the training has taken place.

## List of Potential Environmental Aspects and Health and Safety Hazards

Hazard Category	Description
EGSSME	Energy Source: Stored Mechanical energy
ENV	Environmental
ENV-ODS	Release of CFCs and other ODS into the atmosphere
ENV-C02	Release of C02 and other GHG into the atmosphere
ENV-VOC	Release of Volatile Organic Compounds (VOCs) into the atmosphere
ENV-AIR	Release of hazardous materials and other contaminants into the atmosphere
ENV-NOISE	Emission of noise from Machines and Vehicles
ENV-DUST	Generation of Dust into Air
ENV-SOIL	Release of contaminants into the soil
ENV-GW	Release of contaminants into the ground water
ENV-WASTE	Discarding non-hazardous waste into landfill
ENV-HAZWASTE	Discarding hazardous waste into landfill
ENV-MIGR	Migration of contaminants onto adjacent property
ENV-DRN	Altering of drainage patterns
ENV-EXC	Excavation of Soil
ENV-VEG	Movement/destruction of plants and vegetation
ENV-HAB	Altering Habitat
ENV-ANIM	Interference/contact with non-domesticated species of animals
ENV-PLAN	Planting non-native species
ENV-SURF	Release of contaminants into surface water
ENV-STORM	Release of contaminants into the storm sewer
ENV-WTRCRSE	Redirection of watercourse and destruction of wetlands
ENV-RESOURCE	Resource Consumption (Water, Energy, Raw Materials)
ENV-INF	Influencing the activity of others
ENI	Environmental Impact
CHE	Chemical
EGS	Energy Source
GEN	General
BIO	Biological
ERG	Ergonomic
PHY	Physical
ATM	Atmosphere
EGST	Energy Source Thermal
EGSP	Energy Source Pressure
EGSE	Energy Source Electrical
EGSN	Energy Source Noise
GENM	Mechanical Failure
GENS	Mechanical Stress
GENV	General: visibility
ERGP	Ergonomic: physical stress
GENMO	General: unexpected movement
GENH	General: Heights
GENCS	General: Confined Space
EGSME	Energy Source: Moving Equipment

## Terminology for Impact Identification (to assist in grouping of impacts and analysis of data)

Air:	AIR OZONE CLIMATE	Air Contamination Ozone Depletion Contribution to Climate Change
Water:	SURFACE WQUALITY	Surface Water Contamination Threat to Water Quality Sedimentation
Land:	SOILGW EROSION PRODUCT AESTHECTIC	Soil and/groundwater contamination Soil erosion Loss of soil productivity Aesthetic Concerns
Flora:	VEG HABITAT BIODIV	Threat to terrestrial or aquatic vegetation Threat to habitat Threat to biodiversity
Fauna:	WILDLIFE BIODIV	Threat to wildlife (animals, birds, reptiles, fish) Threat to biodiversity
Humans:	HEALTH PUBLIC	Health and Safety Concerns Public Concerns

## 5.0 INSPECTIONS & HAZARD REPORTING

### 5.1 Hazard Reporting

<b>Function</b>	To outline the requirements for reporting hazardous conditions.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel
<b>Procedures</b>	<p>Safety issues do not wait for scheduled inspections. Both managers and workers must be constantly watching for unsafe acts and conditions. Ongoing informal inspections are essential to keep small problems from developing into major safety issues.</p> <p>Hazard reporting is a procedure to alert Managers to hazardous conditions or work procedures found by workers. Hazard reports fill in the gaps between routine inspections enabling Managers to provide a continuously safe worksite. All hazards should be reported using a simple written form outlining the description of the hazard, its location, the potential risk and control measures required. All reported hazards must be filed and investigated by the Manager in a timely manner.</p> <p>Whenever possible, hazards will be eliminated. If elimination is not possible, other control measures will be used to protect workers.</p> <p>Hazards identified at the work site will be classified as high, medium or low risk potential to cause loss. High risk potential hazards must be communicated to the Operations Manager for further review and if required, follow-up action.</p>
<b>Report Form</b>	Workers must report all situations and conditions which they feel are hazardous by completing and submitting a Hazard Report Form to the Manager.



## Hazard Report Form

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Facility: \_\_\_\_\_

Hazard Location: \_\_\_\_\_

Hazard Description (use additional paper if required): \_\_\_\_\_

\_\_\_\_\_

### Classification Level:

**A**  **B**  **C**

Level A: Likelihood of death, permanent loss of major structure and/or major environmental release.

Level B: Likelihood of serious interrupting injury, serious reparative damage, serious environmental release.

Level C: Likelihood of minor injury, loss, and/or environmental release.

Worker Name: \_\_\_\_\_ Signature: \_\_\_\_\_

**EMPLOYER RESPONSE:**  Substantiated  Not Substantiated

If substantiated, detail the plan to eliminate or minimize the hazard. If not substantiated, detail why not. Use additional paper if required.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Branch Manager Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Joint Committee Rep Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(if applicable)

Worker Acceptance: \_\_\_\_\_

**EH&S RESPONSE (if required):**  Substantiated  Not Substantiated

If not substantiated, detail why not. Use additional paper if required.

\_\_\_\_\_

\_\_\_\_\_

Date Completed:

EH&S Name: \_\_\_\_\_ Signature;

Worker Acceptance: \_\_\_\_\_

**Deferred to WH&S (if required):**  Yes  No



## 5.2 Conduct during Government Inspections

<b>Function</b>	To outline the proper handling of government inspections by workers.
<b>Application</b>	All Definite Oil Field Services Ltd. employees and Representatives.
<b>Procedures</b>	<p>Workers or representatives may be required to deal with official inspections or investigations of their operations. This section describes what to anticipate and how to respond appropriately during an investigation.</p> <p>Provincial regulatory agencies have broad powers of search and seizure. Investigators may enter facilities, inspect vehicles, copy documents, and solicit evidence.</p> <p>Generally, an inspection is a review by regulators for the purpose of ensuring technical compliance with approvals or legislative standards. The purpose of an investigation is to ascertain whether an offence has been committed and to gather sufficient information to support a prosecution. Personnel should be trained to know the extent of an appropriate response and the nature of reasonable objections, but they should not risk obstructing the investigators in performing their investigation.</p>
<b>Inspector Powers</b>	<p>A government inspector may call in advance to advise of his / her planned visit or his / her arrival may be unexpected. It is important that workers and representatives be aware of their responsibilities to cooperate with the inspectors and avoid statements or actions that may incriminate themselves or the company.</p> <p>Inspectors and investigators have broad powers for warrantless search and removal of documents or samples. The inspector can enter, examine and inspect places, things and vehicles. The inspector can use any equipment, examine and take documents, take samples, conducts tests and make reasonable inquiries of any person. He may also ask personnel to operate mechanical or process equipment. Environmental investigations may be undertaken with or without search warrants.</p>
<b>Notification</b>	The Safety Manager and Operations Manager must be notified of all impending investigations. All regulatory inspections must be reported in the form of an incident report to the Safety and Environmental group.

## 5.2 continued

**Cooperation**

It is important that workers give the inspector or investigator all reasonable assistance for him to carry out his duties and to furnish information relative to the investigation. Workers must not knowingly provide false or misleading information or destroy evidence.

Workers may choose to answer questions posed by an inspector but they are not necessarily required to respond. If they are faced with questions by an inspector they need to understand their rights in advance or at least be advised about their legal rights and request an opportunity to first speak to counsel. If they do speak to an inspector they should clearly understand that anything they say may be used against them or the Company should they be charged.

Documents and instructions prepared at the request of counsel in anticipation of litigation are privileged which means that they do not need to be turned over to the inspector. For this reason it may be advisable to obtain legal assistance.

**Actions When An Investigator Arrives**

The following guidelines should be followed when an inspector arrives:

- Be courteous to the investigator and do not attempt to obstruct the investigation.
- Where emergency or spill situations exist, deal with the emergency first. As with any other visitor, it is imperative that all safety precautions be followed.
- If possible, obtain the name, title, address and official identification of the investigator.
- Ask the investigator:
  - Are we under investigation?
  - What possible offence is being investigated?
  - What suspected incident, what part of the facility or what materials are being searched?
  - What is the authority for your investigation?

**5.2 continued**

- Ask the investigator if he would postpone action until you have had the opportunity to contact company officials.
- If the investigator issues a caution indicating that anything that is said may be used as evidence and that you have a right to counsel, you should avail yourself of that right. Do not make statements after you receive such a warning without counsel or authorization.
- Ask to see a copy of the order, authority or search warrant.
- Ask to make a copy of the order or warrant and forward the information to your legal counsel.

**The Investigation**

- The senior employee or representative on-site must accompany the investigator at all times.
- Retrieve information specifically requested by the investigator.
- Take the investigator to the relevant area for his investigation. Do not tour other parts of the facility.
- Take careful notes, photographic records and parallel samples with any sampling undertaken by the official. Consider splitting samples.
- Draw the investigator's attention toward details that are favourable to your position.

**Post Investigation**

- Try to get an opinion in writing from the investigator on his conclusions and recommendations. Ask what additional investigation may take place.
- Collect and develop photographs and analyze samples taken during the investigation.

### 5.3 Property Loss Prevention Reports

#### Definition

Property loss prevention audits are conducted by our insurance company to ensure that we have taken all reasonable precautions to limit our loss during a sudden incident or event.

The follow-up on recommendations and the attributes of our facilities are key to our insurer and our underwriters.

#### Application

All Definite Oil Field Services Ltd. operations.

#### Frequency

The frequency of audits is discussed at the beginning of each year with our insurer. Scheduled audits will be sent out in the first quarter of each year.

#### Reports

Reports are submitted by the insurer to our Corporate Head Office. The reports are then sent out to the specific branch who are responsible for addressing all of the recommendations in writing within 60 days. The Environment, Health and Safety Co-ordinator and or the Environment, Health and Safety Manager will provide functional support towards the recommendations.

#### Guidelines:

1. Insurer schedules the audit and the Branch Manager responds to confirm or reschedule the audit.
2. The audit is conducted with either the Branch Manager or the Operations Supervisor present.
3. The audit report is received by the Manager who assess the recommendations and reply in writing with support from Environment, Health and Safety Co-ordinator or Manager.
4. The following guidelines should be used in assessing feasibility and the practicality of the recommendations.
  - The factual validity of the recommendation
  - Definite Oil Field Services's risk should be assessed using the model for severity, frequency and probability. (Section 5.5 of Risk Management Manual).
  - The cost of implementing the recommendation versus the value of the investment being protected.

#### Investigation By Outside Agencies

Incidents involving fatalities, serious injuries or having the potential for either may be investigated by government agencies and the police or R.C.M.P. Upon presentation of valid credentials all government or R.C.M.P. investigators shall be afforded the fullest cooperation.

## 6.0 GENERAL EMERGENCY RESPONSE PROCEDURES

**Function** The following information is prepared to assist the senior Definite Oil Field Services Ltd. representative at the scene of an emergency and the Emergency Response Director as to the procedures to be followed.

**Application** All Definite Oil Field Services Ltd. operations.

**Procedures** An emergency is defined as any event that calls for immediate special action to prevent or minimize danger to life, property or the environment.

Levels of emergency have been categorized as follows:

Level 1 - No danger exists outside of Company or contractor property, and the situation can be handled entirely by field personnel.

Level 2 - There is no immediate danger outside of Company or contractor property, but the potential exists for the situation to extend beyond Company or contractor property. Local support services must be alerted (Fire, ambulance, police and other emergency groups), and kept informed of the situation. This level includes spills of hazardous materials of recordable quantities if immediate hazard exists.

Level 3 - Safe operating control has been lost resulting in or potentially resulting in fatalities or serious injury to employees, contractors or the public, or serious damage to the environment and/or communities in the surrounding areas could occur,

Any situation involving a fatality or severe injury even though safe operating control was not lost or was re-established must be considered a Level 3 emergency.

Typical Level 3 emergencies would include, but are not restricted to, the following:

- Uncontrolled gas or oil release.
- Large spill of oil or controlled product into the environment.
- Large fire at an operations site.
- Large fire in an office building or maintenance facility.
- Death or serious injury to an employee or non employee involved in Company operations.

Note: If there is any doubt as to whether or not there is an emergency, then initiate the emergency response plan.

This plan must stay up to date with reviews every month at the Safety meetings.

## 6.0 continued

**Definitions**

The Emergency Response Coordinator - is the person discovering the emergency or the more senior Definite Oil Field Services Ltd. representative at the scene who will upon discovery or arrival assume the responsibility of On - Scene Command of the location until relieved by more senior personnel arriving at the site.

The most senior Definite Oil Field Services Ltd. representative will be responsible to initiate all subsequent steps of the plan after contacting and obtaining direction from the Emergency Response Director.

All field personnel(s) must ensure that they have supervisory personnel on call at all times to handle an emergency situation. The senior Definite Oil Field Services Ltd. representative on the scene is in charge of all operations related to the on site handling of the emergency.

In most emergencies the on site commander will be able, along with assistance from the Emergency Response Director and staff, to take immediate action to alleviate the situation.

Emergency Response Director - The Emergency Response Director is responsible for the following :

- To implement the Emergency Response Plan and mobilize (if necessary) the other members of the support group.
- To provide a focal point for communications, decision making and support services available through head office.
- To advise management as to the status of the emergency.
- To advise the switchboard/answering service as to the routing of calls.

The role of the Emergency Response Director is to gather and distribute information pertinent to the emergency and coordinate the activities of the field supervisors and the head office support group. The decision to have any personnel travel to the emergency scene will be made by the Emergency Response Director. The Emergency Response Director may be located at the Branch or Corporate Office.

In the event of a serious incident, company supervisors must proceed promptly, upon notice of the incident, to the scene to conduct a full investigation.

## 6.1 Site Specific Emergency Response Plans

<b>Function</b>	To outline procedures and requirements for developing site-specific emergency response plans.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Procedures</b>	All Definite Oil Field Services operations will have in place an Emergency Response Plan. Managers are responsible for ensuring that the emergency response plan is up-to-date and applicable to their operation.
<b>Requirements</b>	<p>Emergency Response Plans must include the following pertinent information:</p> <p>Table of Contents / List of Figures / List of Tables.</p> <p>Introduction.</p> <p>Emergency Numbers / Local Authorities - includes names and numbers of personnel and agencies whose assistance may be required in case of an. emergency.</p> <p>Location / Site Plan - Include plans of the site showing locations of fire fighting equipment, security fences and utility lines as well as a location plan showing the facility in relation to its surroundings (with nearest neighbours marked). The plot plan should also illustrate escape routes and meeting points to be used in case of emergency or evacuation. A list of tanks and contents should also be included.</p> <p>Maps - This section should have a topographic map of the site showing high and low spots.</p> <p>Evacuation Plan - This should list nearby residences that may need to be evacuated along with their phone numbers. Distances to population centres and areas frequented by people (i.e. golf courses) should also be indicated.</p> <p>Emergency Coordinator - Should outline who will be the emergency coordinator. The emergency coordinator should be the first person on the scene. The position can be handed over to a more qualified person at any time.</p> <p>Securing the Area - Should delegate authority for securing the area (i.e. R.C.M.P.) as well as for designation of the hot zone or evacuation zone and entry control points (Definite Oil Field Services site emergency coordinator).</p>

**6.1 continued**

Public and Media Affairs - Contact names and numbers of the Public Affairs/Media Liaison contacts for Definite Oil Field Services (Operations Manager, Safety Manager and Board of Directors(s)) should be included.

Emergency Actions - These are actions to be implemented depending on the nature of the emergency. Emergency actions relevant to the operation should be included. 6.1.1 for possible actions. This should also outline evacuation procedures such as evacuation routes, meeting points, and head counts.

Medical Aid - If required by the of the emergency, a first aid centre with qualified medical staff should be established at the site.

Water Supply for Fire Department - A list of contacts for water trucks that can be used by the fire department.

**Miscellaneous**

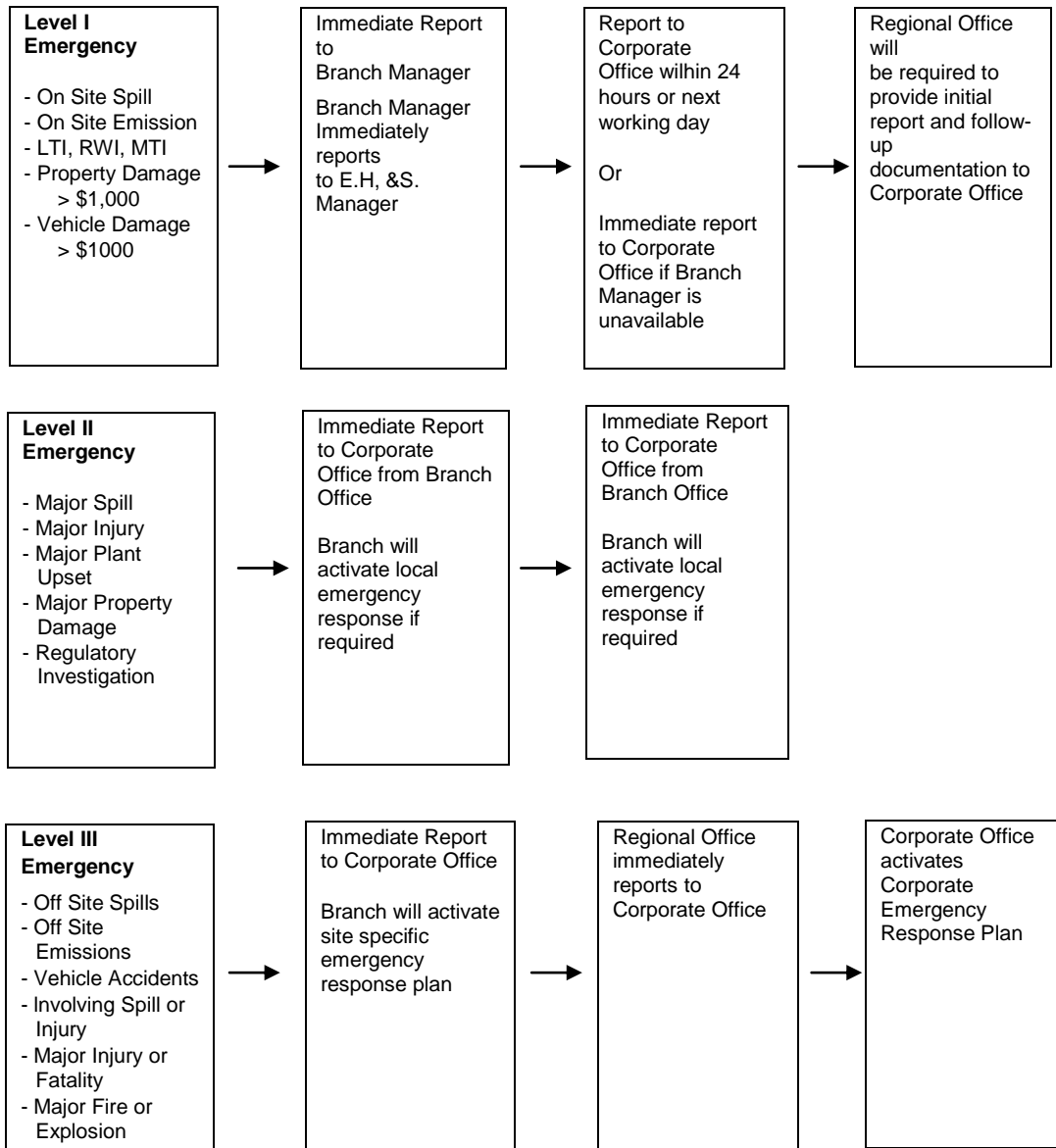
Emergency phone numbers sheet should be posted on a bulletin board near each telephone.



### 6.1.1 Emergency Actions

<b>Function</b>	To outline procedures for dealing with specific emergencies.
<b>Application</b>	All Definite Oil Field Services Ltd. operations (Emergency Response Plans)
<b>Procedures</b>	The site specific Emergency Response Plan (6.1) must contain procedures for dealing with specific emergencies. The types of emergencies that may be faced vary for each operation and therefore the types of emergency actions outlined in the E.R.P. will depend on the operations.
<b>Actions</b>	<p>The following are a number of emergencies for which procedures for dealing with them may need to be prepared depending on the operation:</p> <ul style="list-style-type: none"> <li>- Loss of Life / Serious Personal Injury / Sickness</li> <li>Minor/Major Spill</li> <li>- Minor / Major Fire</li> <li>- H<sub>2</sub>S Alarm or Release, LEL condition</li> <li>- Major Property Damage</li> <li>- Vehicle Accidents</li> <li>- Bomb Threats / Security Breach</li> <li>- Natural Disasters (Lightning Storms, Tornado Warnings, Floods, Grass/Forest Fires, High Winds and Hail)</li> <li>- Evacuation Plan</li> </ul> <p>These procedures should outline step-by-step the actions to be taken in the event of a specific emergency.</p>
<b>Media Contact</b>	A section outlining dealing with the media must also be prepared. This section will dictate authority for giving statements. A preliminary media statement should be given by the most readily available person of the highest authority with training in "Crisis Communication" (most likely a Manger or Safety Manager). Further inquiries will be directed to the appointed Public and Media Information Officer. The person filling this role will be dependant upon the severity of the emergency but should be someone at the level of Operations Manager or higher.
<b>Function</b>	To provide guidelines for reporting, recording accidents / incidents and contacting emergency services.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Procedures</b>	Should an incident occur use the Emergency Contact List form to record all contacts made.

6.1.2.1 Emergency Contact Check List



**Definite Oil Field Services 24 Hour Emergency Response**

**Grande Prairie Office 780-402-2720**

**6.1.2.1 Emergency Contact Check List**

Division: \_\_\_\_\_

L.S.D. \_\_\_\_\_

Local Supervisor: \_\_\_\_\_

Phone: \_\_\_\_\_

Emergency # 1-780-228-0655

Police \_\_\_\_\_

R.C.M.P. \_\_\_\_\_

Fire \_\_\_\_\_

Ambulance \_\_\_\_\_

Air Ambulance \_\_\_\_\_

Hospital \_\_\_\_\_

**Government and Other Contacts**

Ministry of Energy  
(BCMEMP, EUB, SEM) \_\_\_\_\_

Ministry of Environment  
(BCMELP, AEP, SERM) \_\_\_\_\_

Transport Canada \_\_\_\_\_

BC, Alberta, or Sask Labour (OH&S) \_\_\_\_\_

Workers Compensation Board \_\_\_\_\_

Local Police or RCMP \_\_\_\_\_

### 6.1.2.2 Government and Other Contacts

<b>Alberta Energy &amp; Utilities Board</b>	Calgary	(403) 297-8303
	Medicine Hat	(403)527-3385
	Red Deer	(403) 340-5454
	Grande Prairie	(780)538-5138
	Wainwright	(780) 842-3324
	Bonnyville	(780) 826-5352
	Drayton Valley	(780)542-5182
	St. Albert	(780) 460-3800
	<b>Alberta Environment Pollution Control</b>	Edmonton
<b>Alberta Forestry and Lands</b>	Edmonton	1-800-642-3800
<b>Spill Response Emergency Number</b>	Alberta Wide	(403) 228-8880 (403)256-1474
<b>Transportation of Dangerous Goods</b>	Edmonton	1-800-272-9600
<b>Environment Canada</b>	Edmonton	1-800-222-6514
<b>Workers Compensation Board</b>		(403) 490-4000

### 6.1.3 Emergency Equipment and Supplies

<b>Function</b>	To outline requirements for providing emergency equipment and supplies as well as their maintenance and inspection.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Procedures</b>	Managers and/or site supervisors are responsible for ensuring that emergency equipment and supplies that are determined to be essential by safety audits and design specifications are available and that they are properly maintained and inspected. Workers / representatives should report any non-functional or missing emergency equipment and supplies to their supervisor.

## 7.0 COMPLAINT RESPONSE

<b>Function</b>	To outline procedures for responding to complaints by the general public.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Procedure</b>	Response to odour or pollution complaints by residents, or the general public, should be done quickly. A prompt response to a complaint can save money by providing early detection of a spill or leaking gas and is a vital component of preserving good relations with the public.
<b>Guideline</b>	<p>The following are suggestions for dealing with a complaint:</p> <ul style="list-style-type: none"> <li>- Listen carefully and thoughtfully, don't be defensive or argumentative. BE POLITE.</li> <li>- Take the name, phone number and address of the caller (visitor).</li> <li>- Ask if they are in any distress or need any form of immediate assistance.</li> <li>- If you can respond to their question or concern, do so; if not, promise to find an answer and get back to them. Do not speculate or make assumptions.</li> <li>- Make a record in your log book about the incident and all the details.</li> <li>- Follow-up as necessary.</li> <li>- Contact the complainant as soon as you have a response (a visit may be preferable to a telephone call).</li> <li>- Advise other people in your organization about the incident by completing an incident report form (Section 13.0).</li> </ul>
<b>Responsibility</b>	Handling of complaints will be done preferentially by the Manager of the Division or the E.H.&S. Representative for the organization.

## 8.0 SAFETY COMMITTEES

<b>Function</b>	To outline the requirements for and responsibilities of the Safety Committees.
<b>Application</b>	All Definite Oil Field Services Ltd. Divisions.
<b>Procedures</b>	<p>Safety Committees need to be established in all operating regions. The safety committees should represent the interests and concerns of regional operations. The group chaired by the regional manager will consist of management representatives from the Region, as well as workers and owner operators.</p> <p>The role of the Safety Committee is to provide overall guidance to the regional OH&amp;S program, develop program elements, follow-up on incidents, near misses and outstanding concerns, promote health and safety education programs at the worksite, facilitate communication and foster cooperative efforts in providing a safe and healthy regional working environment.</p> <p>The focus of the committee will be to identify and resolve regional health and safety issues and assess the performance of the Corporate OH&amp;S program. The committee is an important link to Corporate and Branch level initiatives and substantiates regional management's commitment to safety. An effective Safety Committee can assist in the reduction of losses resulting from injuries and occupational illness by providing direction and input to Branch level safety programs.</p>

## 8.1 Branch Safety & Environment Meetings

<b>Function</b>	To describe the format and responsibility of health and safety committees, and to outline the requirements for regular safety meetings and pre-job safety meetings to be attended by all employees and contractors prior to any hazardous or non routine work being undertaken.
<b>Application</b>	All Definite Oil Field Services Ltd. Divisions.
<b>Safety Meetings</b>	<p>All Definite Oil Field Services Divisions must conduct safety meetings once per month which all employees, owner operators and workers are required to attend.</p> <p>Attendance records must be completed for all safety meetings and this record must be signed by the attendees and kept on file along with the minutes of the meeting. Copies of the minutes must be distributed to the Corporate Office.</p> <p>Each safety meeting must have a central theme or issue to be discussed in order to provide focus to the meeting. In addition, head office summarized accounts of all OH&amp;S incidents and spills will be discussed at each meeting. The discussion of this information will aid in educating and minimizing the risk of similar incidents at other Definite Oil Field Services operations.</p> <p>Agendas for monthly safety meetings are to be prepared in advance and posted to inform employees of discussion topics and allow an opportunity for participants to add to the agenda any items they feel are important.</p> <p>The agenda for the meetings will follow the outline of a normal business meeting:</p> <ol style="list-style-type: none"> <li>1) Acceptance of the minutes from the previous meeting.</li> <li>2) Business arising from the meeting.</li> <li>3) Old or unresolved hazards.       <ul style="list-style-type: none"> <li>- Solutions</li> <li>- Safety Training</li> <li>- Accident/Incident Review</li> </ul> </li> <li>4) New Concerns.       <ul style="list-style-type: none"> <li>- New Hazards</li> <li>- Required Training</li> </ul> </li> <li>5) Education Program</li> </ol>

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## 8.1 continued

- 6) Review of Regulations
- Review of Procedures
  - Seminars on Equipment by suppliers
  - Review of all previous accidents/incidents and near miss investigations.

The minutes of the safety meeting will be recorded and distributed as follows:

- A copy at each facility or Division Office.
- A copy at the Corporate Office

## 8.2 Management Safety Meetings

<b>Function</b>	To outline requirements for safety oriented management meetings.
<b>Application</b>	All Definite Oil Field Services Ltd. management.
<b>Procedures</b>	All Branch and District Managers for each region will meet at quarterly. A major focus of these business meetings will be safety.  The meeting agenda will be set by the Safety Manager with input from the Operations Manager.



## 9.0 PREPARATION & USE OF STANDARD OPERATING PROCEDURES (SOP)

### Introduction

This procedure sets out the format and content to be included in the preparation and use of Standard Operating Procedures for Definite Oil Field Services Ltd. Persons having the authority to prepare and approve procedures are defined, as is the methodological approach to be employed in determining when a written procedure is required and how procedures are applied.

### Purpose

#### Compliance with Definite Oil Field Services Ltd. Policy

One of Definite Oil Field Services Ltd. stated goals is to conduct its operations in such a manner as to ensure the safety of its operations and most importantly its workers, owner operators and all other associated with Definite Oil Field Services. One purpose of standard operating procedures is to permit Definite Oil Field Services to determine and establish how work may be accomplished such that corporate goals of optimum safety of operations are achieved. A person trained in a well prepared and consistently applied procedure will be better equipped to work safely, and productively.

#### Compliance with Health & Safety Regulations

Definite Oil Field Services conducts its business across many provincial and federal jurisdictions. Each jurisdiction has legislated regulations establishing the lawful duty for the workplaces to be designed and operated so as to reduce or prevent injury and / or illness to workers. The preparation and use of Standard Operating Procedures assists Definite Oil Field Services to comply with Health and Safety regulations by providing a methodological approach by which the essential elements of the applicable regulations are incorporated into day to day operations.

#### Compatibility with Hazard and Operability Analyses

All Definite Oil Field Services operations are designed to minimize the risk of worker injury or illness as well as minimize the potential for failed or interrupted operations. Formal hazard and Operability studies (HAZOP) are undertaken at the design phase to confirm that all significant risks are identified and contained. Much of Definite Oil Field Services's operations relies upon the skill and dedication of its workers and there knowledge along with engineering input (if required) Standard Operating Procedures can be developed.

9.0 continued

**Control of  
Critical Tasks**

At all Definite Oil Field Services operations, both fixed and mobile, there are generally a series of operational activities which have the potential, were they not appropriately managed, to cause injury to workers, significantly impact the environment, or cause substantial financial loss. These activities are characterized as Critical Tasks. Critical tasks may include actions specifically covered under H & S legislation and identified in HAZOP's but they may also include activities such as vehicle operations, material handling, hand tools etc. which operational functions are not otherwise controlled. Standard Operating Procedures are therefore required for all critical tasks.

**Application**

**Authority**

Authority and responsibility for the development and issuance of standard operating procedures resides with management. Each manager is responsible to undertake assessment of the hazards of operations under their supervision, to identify tasks requiring formal assessments and written instructions and to undertake to have the procedures developed and implemented.

It is the responsibility of the Safety Manager to ensure that the procedures in use under their direction are uniform, wherever possible. Procedures for common tasks undertaken throughout the organizations operations must be uniform to ensure consistent policies and standards are established and maintained. Wherever possible, existing procedures developed at other branches or divisions should be adopted to reduce the duplication of effort and enhance uniformity.

**Internal Utilization  
Distribution**

Definite Oil Field Services's safe operating procedures are designed for the distribution within Definite Oil Field Services only. The distribution of Definite Oil Field Services procedures to regulators, contractors and clients is limited to those circumstances where Definite Oil Field Services requires to demonstrate safety of operations, or to control the activities of contractors performing work for Definite Oil Field Services.

Definite Oil Field Services procedures are the exclusive property of Definite Oil Field Services and it is prohibited to copy, publish, print or offer these procedures for commercial or non-commercial use except with the written authority from the Manager of Safety or the Operations Manager.

9.0 continued

Internal distribution and the maintenance of the original signed copies of the procedure is the responsibility of the Safety Manager.

### **Adopting & Revisions**

Once the operating procedure has been prepared and implemented, it must be adopted without change by the operating group covered in the procedure. Compliance with operating procedures is not voluntary and the conduct of operations without regard for the procedure or in a manner not in accordance with the procedure is prohibited.

Where, as a result of changes to operating conditions, or amendments to applicable regulations, revisions to existing operating procedures are required, such revisions are to be carefully reviewed and the procedure updated to remain valid.

Again, responsibility for revisions and re-distribution of the modified procedure resides with the Safety Manager.

### **Limitations**

Definite Oil Field Services safe operating procedures are limited to operations conducted by Definite Oil Field Services and are not intended to replace existing

Health and Safety or Environmental regulations nor are they intended to replace or supersede the written operating instructions for equipment or vehicles as provided by the original manufacturer.

In many cases, activities conducted by Definite Oil Field Services may be unique

either in terms of the equipment, physical constraints or product handled, in these cases, the application of procedures developed for such an activity is generally limited to that operation only.

### **Preparation**

#### **The Modern Safety Management Model**

Finally, written operating procedures are not intended to replace the skill and attentiveness of personnel. No written procedure can alone guarantee safety and it must be recognized that the safety of operations requires the constant vigilance of all the workers.

There was a time where it was generally accepted by industry and the public that industrial accidents, injuries and illness were a necessary evil and an unavoidable by-product of industrial activity. Today, modern society demands that success in business be measured by more than financial returns. Protection of the environment and worker safety are equally, if not more important.

The Modern Safety Management Model exists in many forms as developed by such groups as the American Petroleum Institute and

## 9.0 continued

various other trade organizations. Everyone in the industry who has exposure to working with major oil companies is aware of their steadfast insistence on safety in the workplace, and their safe work history is clear evidence that this focus works.

In essence, modern safety management has as its credo the concept that all losses, whether personal, of equipment or financial are preventable. The Definite Oil Field Services safety policy fully accepts and endorses this concept.

The Modern Safety Management Model provides an organized framework for the establishment of a successful loss control program. An essential component of the model is the preparation and implementation of written operating procedures.

### **Critical Task Identification**

Even small operations within Definite Oil Field Services are engaged in numerous tasks, from loading, unloading, various equipment operations, repairs etc. Obviously, were one to list all the potential tasks undertaken, this would represent several dozen, and in some cases of larger more complex operations, this could translate into several hundred. It is neither desirable nor beneficial to assume that all of these tasks must be rendered to a written procedure in order to provide guidance to workers so that they may work safely. Rather, it is valuable to prepare procedures for critical tasks only.

A critical task is one which has the potential to produce major loss to people (lost time injury or worse), property (equipment failure, severe operation upset, explosion or fire) or the environment (major spill or release) if the task is not performed properly.

How are critical tasks to be identified? Commence by listing all tasks conducted at the workplace. An easy way to do this is by dividing activities into categories such as fluid moving, maintenance, product handling / management etc.

Once all of the tasks are identified, each task must be measured to determine if it is critical. Remember that critical tasks are those with the potential to cause major loss. The three elements to be measured to ascertain the criticality of the task are; Severity, Frequency and Probability. The following work chart describes one measuring tool which could be applied to any work place.

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Element	Degree of Impact		
	Low	Moderate	High
Severity (0-6)	No or minor injury; Minor damage	Restricted work injury; disruption to the operation	Lost time injury or death; major spill; fire explosion or destroyed
Frequency (1,2,3)	Monthly	Daily	Continuously
Probability (-1,0,1)	One employee; simple straight forward work	Several employees; work requires skill to perform safely	Numerous employees complex, difficult or hazardous task

Definite Oil Field Services Ltd. has determined that all tasks with a cumulative score of 7 or higher are defined as critical tasks. Critical tasks require a formal review by the operations group and a decision must be made as to whether a standard operating procedure may be of use to help control the risk.

Often, after an operation has undertaken to identify the critical task inventory, it is determined that many tasks can be deleted or modified immediately to render them non-critical while still maintaining the same operational flexibility. In this case, such a task probably no longer requires a written operating procedure. As well, critical task identification often highlights the absence of written procedures readily available from equipment suppliers, but which may have simply been lost or misplaced. Again, the original equipment manufactures manuals and catalogues should always be obtained for all equipment and either used as, or at the least incorporated into, standard operating procedures.

### Job Task Analysis

Once critical tasks are identified, a step by step analysis of the task must be undertaken. This procedure breaks the tasks down into all of its component actions. For each action, identify all of the potential risks. For each risk, devise a solution (cure) which will eliminate or control the risk. This is called Job Task Analysis (JTA) and is to be formally recorded for later use in preparing the standard operating procedure. The work site should be closely examined by the study team before commencing the job task analysis and equipment manuals, process flow diagrams, etc.

## 9.0 continued

made available, if required. The following worksheet is provided too show how a Job Task Analysis is typically performed.

Job Task Name: Change Car Tire		
Job Steps	Risks	Cures
#1 Jack up car	#1 Car could move #2 Car could fall off the jack	#1 Apply brake or block wheels #2 Ensure jack is in correct location, block car up with stands.
#2 Loosen wheel nuts	#1 Wrench could slip #2 Personal injury/strain	#1 Ensure wrench is securely applied prior to applying pressure #2 Ensure good form and body position
#3 Remove tire	#1 Personal injury/strain	#1 Ensure good form and body position
#4 Replace tire and tighten	#1 Personal injury/strain #2 Wrench could slip	#1 Ensure good form and body position #2 Ensure wrench is securely applied prior to applying pressure
#5 Lower Vehicle	#1 Car could move #2 Car could fall off the jack	#1 Ensure brakes are applied or wheels blocked.

Continue the analysis until all work steps have been studied and all potential risks are eliminated or controlled. If the risk can not be controlled, the task should be curtailed or stopped until a more thorough examination of the work can be completed.

### Standard Operating Procedure

Standard operating procedures (SOP) do not necessarily require that a JTA be completed as a first step. JTA's can be by-passed where the procedure incorporates detailed operating instructions from a manufacturer to function a piece or series of equipment. An example would be an air compressor, or a self contained breathing

## 9.0 continued

apparatus, or a piece of analytical equipment. For all other critical operations, however, a JTA is required.

A standard operating procedure sets out in a straight forward and easily understood manner, the steps that are required to be taken to perform work both safely and productively. The specific content requirements for an SOP are set out in Part# 15.6.1.

In preparing the SOP, the author must take into account the results of the JTA. The procedure must identify the hazards identified and the personal protective equipment, fail-safes, checks, tools and order of performing work that is set out under the "cures" category. The procedure must further explain to the worker the dangers in avoiding, changing or modifying work from that as set out in the procedure.

### **Job Task Observation**

Once the SOP has been written and training delivered to the workers, the final key step is to perform Job Task Observation (JTO). A JTO means to go to the workplace and observe the employee actually performing the work, in accordance to the SOP.

This is important because notwithstanding the thoroughness of the JTA or the quality and insight of the SOP, certain aspects of the work plan as defined may be unworkable, or unnecessary. For example, the SOP may say to close valve "A" before opening valve "B", but in fact, but in fact, valve "B" can not be opened with valve "A" closed, etc. Or, the procedure may call to a series of pre-work tests, or may include confined space entry, whereas, upon undertaking the JTO, it is realized that a simple modification to the process will render this dangerous work redundant.

In any event, where the JTO suggests that improvements to the SOP are required, these should be immediately undertaken and the SOP revised to define the modified work. The modified SOP can then be re-issued and implemented. A second JTO may be required.

### **Personnel and Resources**

#### **Team Leader**

The standard operating procedure will be prepared by a person who is appointed as "team leader". The team leader brings together the personnel and resources to undertake the JTA, write the SOP and implement the JTO.

## 9.0 continued

The team leader must be generally familiar with the operations and should have specific training in dealing with complex operational matters in an organized, thorough and methodical manner. Generally, once a worker has been exposed to SOP preparation through hands on involvement, the essentials are quickly grasped and the person can then proceed to work independently. The review and approval process, plus the JTO are to catch any errors or omissions.

The preparation of a successful SOP is a team effort. It requires the involvement of one or more workers, engineers, sometimes suppliers, all of whose input is necessary. The team leader keeps the work group focussed on the objective and acts as the decision maker to resolve differences of opinion.

**Qualified Person**

As stated earlier, the undertaking of a JTA requires as a minimum the leader and a qualified person. A qualified person is one who is familiar with the operation or equipment to be proceduralized. This person has the practical, hands on experience which is applied to defining what, in his or her experience can go wrong at each stage of the operation. Their experience is invaluable in setting the correct tone ergonomically and in describing the realities of the situation.

Remember that a procedure written and left on the shelf because workers see it as an unnecessary burden is of no value at all. Procedures must be a living thing, valid and user friendly.

**Role of the Safety Manager**

In addition to ensuring that operations have undertaken to prepare a list of critical tasks, the Safety Manager is also responsible to coordinate the preparation of SOP'S with the Division Manager. The Safety Manager helps in setting priorities and a schedule and provides support to division staff and workers in researching topics, obtaining supporting data, product information, etc. The Safety Manager can also act as team leader in a training sense.

Finally, the Safety Manager reviews all SOP'S for the organization and signs as a recommender for all the procedures.

**Review of Existing Procedures at Other Locations**

While operations at some locations are unique to that one location, many are common throughout a Division, District or Region. Rather than each location writing its own procedure, it is useful to



## 9.0 continued

attempt to standardize procedures by adopting those already in place somewhere else.

There are a number of benefits to be gained from this practice, not the least of which is the reduction in effort and time allocation in preparing an SOP. Second, the experience of the other operations in tackling the same task is beneficial and insightful. Third, hazards in performing the work not identified at one location may be revealed in a review of another branch's JTA or SOP. Finally, the use of common procedures allows the workers to transfer from work site to work site, and to very quickly become orientated at the new site due to the similarity of the work and the methods employed.

At the same time, one must always approach the simple adoption of existing procedures with caution and operations must be satisfied that the existing procedures truly do fit their operation. Implementation of an existing procedure should never be used as a shortcut or to avoid the effort of considering the unique hazards of your workplace.

### **Procedures and Manuals as Supplied by Manufacturers**

As stated earlier, operating, installation and maintenance manuals as supplied by manufacturers can be invaluable as training and risk management tools for Definite Oil Field Services operations. In theory, such equipment manufacturer (EM) supplied information should enable operations to work safely while getting the most from the equipment. To the extent that the E.M. information describes the application and functioning of the equipment under normal operating conditions. However, very often, this equipment is only a part of an even larger process within an Definite Oil Field Services operation. As well, the specific application may not have been considered when the manufacturer prepares their documentation. In other words, the manufacturer procedures may be inadequate for the purpose of managing the risk.

In these cases, the manufacturer's information should be incorporated into the SOP, but does not form the whole body of the SOP. Operations should also consider sending a copy of their SOP to the manufacturer for review and comment.

### **Format**

All SOP'S are to use a uniform format so that proper considerations of key elements are applied and so that the procedure will have improved usability characteristics by operators and drivers. This section defines the essentials of that format.

## 9.0 continued

<b>Numerical Sequence</b>	All SOP'S are too issued in a consecutive numerical sequence. The Procedure Number commences with three letters indicating the functional group covered by the procedure, for example, OPP for operations, ADM for administration, SSS for sales, etc. Finally a three digit number is entered commencing with 001. This sequencing is method is to avoid confusion over the application of the procedure. Usually, procedure numbers are issued by the Safety Manager who maintains the signed copies of all the procedures.
<b>Page Numbering</b>	All pages of an SOP are too numbered and the total page count provided. For example: Page 1 of 22. The page numbers are to be entered into the right hand portion of the footer.
<b>Header / Footer</b>	Each page of each procedure is to have the identical header and footer as displayed in the example provided. This is to clearly identify the name and application of the procedure and to demonstrate that the procedure was developed in accordance with this procedure. As well, by utilizing a uniform layout, this assists the workers in rapidly identifying the procedure and it areas of application.
<b>Approvals and Dates</b>	To be valid, the SOP must have a footer wherein are located space for the signed recommendation and approval of the SOP. All procedures must carry the date on which they were approved.

## 9.1 SOP Content

Below are described the essential components of a procedure. Not all procedures require all components. For example, an administrative procedure defining the waste profiling procedure or flowcharts for accounting will not require a health and safety section. But in every procedure, all sections must be covered off and must proceed from the introduction, through application to operating plan and training in order. As with all other portions of the SOP program, the layout must be orderly and consistent.

### **Introduction**

The introduction section of a procedure serves the purpose of setting the tone by generally describing the contents of the procedure as well as the intent. Intent includes, for example, and expansion of an existing Equipment Manual, or integration with other existing procedures. As well, whether the procedure is for direct operational use or is to set out general or specific company policy is also described at this point.

### **Purpose/ Application**

The specific purpose and application of the procedure must next be laid out. The purpose may be to define the safe procedural steps for work, or to comply with a facility permit of operation, or to define methods to be used in purchasing control.

Application sets out the limit of authority of the procedure. This will define whether the procedure is for an off-site job, for one operation or is intended to be applied at all locations within a Division or Region.

### **Health and Safety**

#### **Hazard Identification**

The specific hazard of work must be fully defined. This means stating the danger of fire, explosion, electrical shock, contact with fixed structures or moving equipment; impact of fluid, solid or gaseous elements; environmental factors; risk of injury or illness as a result of contact with reagents or waste, etc.

Hazards and risks must be identified as to their relative level, such as low, moderate or high and reference must also be made to any statutory limits controlling such work such as exposure limits to compounds or WCB requirements for the performance of confined space work, as examples.

## 9.1 continued

**Personal Protective Equipment**

The PPE for the work is to be specified. All PPE must be specified, including basic equipment listed elsewhere in the corporation health and safety policy.

Equipment listings may be generic for items such as hard hats, but should be specific when dealing with more complex gear or equipment. Respirator cartridges, for example, should be specific such as NORTH model #400, or equivalent.

**Fire or Explosion Controls**

Due to the severity of the injury or damage that could result from a fire or explosion, the procedure should contain specific instructions to personnel about what steps must be taken to reduce the risk, or which equipment should be on hand in an effort to control an incident, should it occur.

As well, this section must lay out the incident response and communication steps both for onsite and offsite incidents.

Also to be specified is what, if any, fixed or mobile, passive or active fire control equipment, such as extinguishers and agents are to be used in the event of a fire.

**Confined Space / Work Permits**

Any procedure which involves hot or cold work on equipment or structures, or entry into a confined space must be covered under a work permit; issued at the worksite. The SOP must define that portion of work which requires issuance of the permit, how it is to be obtained and where it is to be posted.

**Material Safety Data Sheets**

Wherever available, Material Safety Data Sheets for any of the products used in the operating process must be referred to in the procedures. MSDS's will be maintained at the facility in the alphabetical book as laid out in the Workplace Hazardous Materials Information System legislation.

**Tools and Supplies**

The procedure must set out what, if any, tools and equipment are to be used in the work and the required supplies such as absorbent materials, neutralizing agents, etc. to be used in the event of spillage.

9.1 continued

### **Site Health and Safety Plan**

Wherever work is to be performed offsite, that includes work in addition to the normal matters of waste collection or product delivery, that involves, as examples, confined space entry, tank cleaning, waste treatment, demolition, etc., then a specific health and safety plan must be developed for the procedure.

Included below are the essential components of a Site Health and Safety Plan.

#### **Supervision**

The procedure must define who is responsible for the supervision of Definite Oil Field Services workers at the work site and who will act as the health and safety officer.

#### **First Aid**

First aid requirements at the site, such as what level of immediate response equipment is to be available, or access to the client's first aid support system is to be specified.

#### **Personal Protective Equipment (PPE)**

The appropriate level of PPE to perform each stage of the work must be itemized. In addition to the standard list, methods to control heat prostration by use of ice packs or forced ventilation, for examples will be described.

#### **Hazard Identification and Control**

All known hazards must be listed, as well as methods in place to limit worker exposure and/or control those hazards so that they do not represent an unusual or unacceptable risk to the workers.

#### **Hygiene / Decontamination**

This section describes the operation and work methods in place for the maintenance of employee hygiene. This includes defining the location of washrooms, rest areas and the need to wash before consuming food, or showering before leaving the work site. It must be clearly stated whether employees are to use the customer's facilities, or if portable units will be provided.

#### **Emergency Plan**

An emergency procedure must be written and posted at the work site. This tells employees what to do in the event of a fire, injury or other emergency and lists the available contacts as well as the locations of the nearest fire station and hospital.

9.1 continued

## **Record Keeping and Communications**

This section defines the communications route between the workers, the supervisor and the customer. Specific record keeping, such as a written list of workers on site, copies of proof of training, such as copies of First Aid Certificates, daily operating logs, etc. is to be included.

## **Operating Plan**

The operating plan of the procedure is the heart of the SOP. Here, the step by step actions identified in the JTA must be methodically listed in a manner which would allow even an inexperienced worker to perform the work in such a manner as to avoid injury or critical damage to equipment.

## **Orientation**

Orientation sets out the general scope of the work to be performed: what, where, when, how, who. This section also allows for the operations group who prepared the SOP to express their experience by speaking clearly of special risks or deficiencies to be vigilant against.

For example, if the procedure were for the operation of a vac truck, the orientation would include special notes to remind the driver to double check the locking nuts on the back door prior to commencing work.

Orientation will also define any pre-work inspections required to be performed and included with this will be reference to other procedures, such as work permits, which may be required to be completed before this procedure can be undertaken.

## **Process and Instrumentation Diagram / Vehicle or Equipment Schematics / Site**

### **Plans**

Wherever available and applicable, the appropriate work site plan, and for complex operations, the Process and Instrumentation Diagram(s) (P& ID) should be referenced and supplied. Any reference in the SOP to valves, tanks, or other equipment must use the same identifier as the P& ID.

### **Set Up**

At this point, describe all the tools and equipment needed to perform the work. Also define how auxiliary equipment such as portable pumps, hoses, lights, etc. are to be inspected, installed and made ready.

**9.1 continued****Job Steps**

Referring to the JTA, listing the step-by-step actions to be taken to perform the work. Job steps should be only so detailed as required, but in preparing an SOP, it is better to say too much than too little.

**Shut Down**

Specify what steps are to be taken at the conclusion of the work, such as decontamination, restoration, normal operating status, clean up, disposal of residuals, etc.

**Completion / Retention / Distribution of Records / Manifests**

The procedure should define the repository for any paperwork or records involved in the work. This may involve, as examples, the need to update equipment maintenance records at an operation, or entry of a process or inventory volume into a facility or tank farm, or instructions for the completion and distribution of waste manifests or bills of lading.

**Implementation****Review and Approval**

All procedures must be signed, progressively, by the author who prepared the SOP; by the Safety Manager, and in some cases by the Safety Committee representative, as recommending of the adoption of the SOP; and, by the person with the authority to approve the procedure. This may be the Division, Regional, General or Operational manager.

A simple rule is that no one person can prepare and approve the procedure. There must always be an impartial and through review before the procedure is put into practice.

When approved, the Safety Manager will distribute the SOP for use and will enter the distribution date onto the procedure.

**Employee Training / Record Keeping**

Whenever an employee receives training in an SOP, that training is to be formally recorded by the supervisor in the workers training record file.

## 9.1 continued

**Trial Application and Observation**

In some cases, for example, complex equipment operation, vehicle or manual material handling, simple reading of the procedure is not sufficient training. In these cases, the supervisor should physically demonstrate the procedure and then observe while the employee performs the work. This direct training should continue until the workers have demonstrated the minimum competence necessary to permit safe, unsupervised work.

**Revision**

Over time, changes in operating equipment, applicable regulations or changes demanded in response to an incident investigation require that SOP'S must be modified or updated. Not only must the same approval and review process be undertaken as for the original SOP, but the approval date advanced as well. Each time the procedure changes, in any way, it must be reissued as a new procedure, and a sequential Revision No. must be entered into the footer for each page. In this way, old, outdated procedures may be quickly identified and removed from circulation.

**Training**

All personnel assigned to the Preparation and Use of the Standard Operating Procedure shall first read this procedure, have the procedure demonstrated to them by a competent person and then shall demonstrate to the satisfaction of that competent person the minimum necessary capability in the procedure use.

All training shall be recorded in the worker's personal training file by the supervisor.



## 10.0 INCIDENT REPORTING AND INVESTIGATIONS / STANDARD OPERATING PROCEDURES

### Introduction

Incident reporting is the notification process which informs management of events leading to injury, property damage or loss to process. All incidents (actual and/or near misses) of a significant nature must be reported so that the circumstances surrounding the event will be communicated, the cause identified, mitigation implemented and future reoccurrence minimized. Incident reporting is a prerequisite for incident investigation. Management relies on the accuracy of the reported information to make follow-up decisions.

### Incident Report Form

The revised Definite Oil Field Services Ltd. incident report form must be completed when reporting an incident. The incident report form consists of one page (Figure I). There. Information reported should be brief, so the required data can be gathered quickly, efficiently and accurately soon after the event occurs. Incident reports must be faxed to Head Office upon completion. For Level III incidents, the Incident Report must also be telephoned in immediately. All incident reports sent to Head Office should be directed to the Safety Manager.

### General Reporting Procedures

#### Incidents

Incidents can be divided into the following categories: near misses and accidents. A near miss is any event where no injury or loss occurred from an unexpected, unintentional, and undesirable occurrence however, injury or loss could have resulted. An accident is any event involving injury, spill, property damage, loss to process or death. All incidents must be rated by their potential severity (major, serious, or minor) on the incident report.

#### Reporting

Level I incidents typically involve incidents where no danger exists outside of company or contractor property, and where the situation can be handled entirely by Definite Oil Field Services Ltd. personnel. Level I incidents may include but not limited to on-site spills (see page 4 for spill reporting requirements), on-site emissions, property damage (> \$1,000), process operational upsets (loss to process), lost time injuries, restricted work injuries, medical treatment injuries, vehicle accidents, and vehicle violations (transport related). Level I incidents must be reported to Head office within 24 hours or next working day, using the Definite Oil Field Services Ltd. incident report form. Near misses are reported if the Branch Manager or person in charge believes the severity potential was major or serious.

**10.0 continued**

Level II incidents typically involve situations where there is no immediate danger to off-site property or the environment, but the potential exists for the situation to effect property or the environment beyond site limits. Local support services (local fire departments, police and other emergency groups) must be alerted to these incidents as required, and kept informed of the situation. Level II incidents include: major accident - no spill or injury; major on-site spill; major property damage; major plant upset or regulatory investigation. All Level 11 incidents must be reported immediately.

**10.0 continued**

Level III incidents usually involve situations where safe operating control has been lost, resulting in or potentially resulting in fatalities; serious injury to Definite Oil Field Services Ltd. personnel, contractors or the public; serious property damage; serious impacts to the environment; or major impact to surrounding communities. Level III incidents may include but are not limited to: major injury or death of an employee(s) or contractors; off-site spills; off-site emissions; vehicle accidents involving injury or spill; major fire or explosion; or major plant upsets-unusual occurrences. All level III incidents must be reported immediately by telephone and/or fax. In the case of Level III incidents, emergency response plans may require implementation.

In the event of serious or catastrophic situations which occur after normal working hours, appropriate senior management must be contacted by telephone.

**Information**

To ensure that incident reporting is consistent, the following information must be provided in the incident report.

- Names of individuals directly and/or indirectly involved: Definite Oil Field Services Ltd. and third party
- Location, date and time of the incident
- Name of the injured worker(s), description of the illness or injury
- Description of the events leading to the incident
- Description of the damage to Definite Oil Field Services Ltd. or third party property
- Description of the spill / volume; air emission / duration
- Description of the accident or incident
- Definite Oil Field Services Ltd. personnel informed

**Notifications**

If required the following must be notified:

- Police; all emergency situations
- Regulatory; reportable spills and OH&S incidents
- Ambulance; as required for emergency situations
- Fire Department; as required for emergency situations

Sometimes there is media interest following an incident. If Definite Oil Field Services Ltd. is contacted by the media the person is to advise that someone will get back to the reporter as soon as possible (never say "no comment"). All incident reports will be kept on file at the Definite Oil Field Services Ltd. Head Office.

Near misses and incidents must be formally discussed at branch level safety meetings and at safety committee meetings. Discussion of this information will increase safety awareness and minimize the potential for similar incidents to occur at other Definite Oil Field Services Ltd. operations.

10.0 continued

### **INTERNAL SPILL REPORTING REQUIREMENTS**

In addition to regulatory spill reporting requirements, Definite Oil Field Services Ltd. maintains internal spill reporting procedures. On site spills larger than 20 litres must be reported internally. Spills equal to or larger than 1 litre but less than 20 litres must be reported and documented internally. All off site spills must be reported internally and to the appropriate Regulatory Agency.

### **REGULATORY SPILL REPORTING REQUIREMENTS**

Reports to the Regulatory Agencies must be made by the Safety Manager.

#### ***Alberta Energy & Utilities Board***

- Unrefined product, on lease greater than 2m<sup>3</sup>
- Refined product, on lease causing or having the potential to cause an adverse environmental effect and /or spill volumes which exceed reportable quantities as per Figure 2.
- All off-site spills
- In the case of a Facility Division spill, one call to the EUB will satisfy AEP reporting requirements

#### ***Alberta Environmental Protection***

- All spills (refined and/or unrefined product) either on the lease or off-site which have caused, are causing or may cause an adverse environmental effect and/or spill volumes which exceed the quantities outlined in Figure 2.

#### ***Saskatchewan Environment Resource Management***

- All spills either on-site or off lease, exceeding the reportable quantities outlined in Figure 3.

#### ***British Columbia Ministry Environment, Lands & Parks***

- Refined product; on and off-site which exceed the reportable quantities (Figure 4).
- Waste oil greater than 100 litres
- Flammable liquids greater than 100 litres
- Corrosive liquids greater than 5 litres
- Flammable solids greater than 25 kg

#### ***British Columbia Ministry Energy, Mines & Petroleum Resources***

- Unrefined product on lease greater than 100 litres
- Unrefined product; all off-site spills
- Produced water on lease greater than 2 m<sup>3</sup>
- Produced water, all off-site releases

10.0 continued

### ***Dangerous Goods in Transport***

- Refined product; greater than 200 litres flammable liquids
- Refined product; greater than 25 kg flammable solids

### ***OCCUPATIONAL HEALTH AND SAFETY REPORTING REQUIREMENTS***

Reports to the Regulatory Agencies must be made by the Safety Manager.

#### ***Workers Compensation Board***

- WCB forms must be completed and submitted to the appropriate provincial agency for all medical treatment and lost time injuries and/or work related illnesses.

#### ***Alberta Occupational Health & Safety***

- All incidents involving: death; an incident where the employee is hospitalized for more than 2 days; an unplanned explosion or fire which has caused, is causing or has the potential cause a serious injury or accident; and the collapse of a building or structure are incidents reportable to Alberta Occupational Health & Safety.

#### ***British Columbia Workers Compensation Board***

- Incidents involving: death; critical injuries with risk of death; major structural failure; major release of chemicals or toxic substances, and blasting must be reported to BC WCB if the incident resulted in medical treatment by a physician or did not cause an injury but had a potential for causing an injury.

#### ***Saskatchewan Occupational Health & Safety***

- Incidents involving: death; serious injury; and/or dangerous occurrences must be reported to Saskatchewan OH&S.

Serious injury is defined as:

- a fracture of the skull, spine, pelvis, femur, humerus, fibula, tibia, radius or ulna;
- an amputation of a major part of a hand or foot;
- the permanent loss of the sight of an eye;
- any serious internal haemorrhage;
- any burn that is caused by electricity and requires medical attention;
- any third degree burns;
- any injury caused directly or indirectly by explosives;
- any asphyxiation or poisoning that causes a partial or total loss of physical control.

## 10.0 continued

A dangerous occurrence is defined as:

- the structural failure of a building, structure, temporary false work or concrete formwork;
- contact with an un-insulated electrical conductor by hoisting or excavating equipment, by any vehicle or by any load associated with that equipment or vehicle;
- the structural failure of all or part of temporary or permanent supports for a shaft, tunnel, caisson, coffer dam, trench or excavation;
- the bursting of a grindstone or grinding wheel;
- an uncontrolled spill or escape of a toxic, corrosive or explosive substance that has or may have seriously affected the health and safety of workers;
- any premature detonation or uncontrolled use of explosives; and
- the failure of a support system of any suspended platform.

### ***INVESTIGATION PROCEDURES INTRODUCTION***

Incident investigation determines why accidents occur and how to prevent their reoccurrence. The investigation provides management with information which can be used to assess the appropriateness of work procedures, standards, training programs, communication systems and/or equipment.

Management relies on the accuracy of the information in all respects in making follow-up decisions.

Investigation reports should be written using the established Corporate report format. Utilizing this format will provide consistency in the data record and ensure that critical information is documented. Investigation reports must be completed and submitted to Head office **within one week following the incident**. All investigation reports sent to Head Office must be directed to the Safety Manager.

When an incident occurs, the first priority must be to take care of the injured worker and /or contain the spill, prevent further loss, remove all potential hazards and to report the incident. Following this, the investigation should take place. The shorter the time interval between the incident and the investigation the more vivid the recollection of details, observers will not had time to have their opinions biased by discussion with others, evidence will be preserved and equally important, a quick investigation is an opportunity for management to demonstrate their commitment to the risk management program.

### ***INCIDENTS REQUIRING INVESTIGATION***

The following incidents must be investigated:

- Spills which exceed the Definite Oil Field Services Ltd. and/or regulatory reporting requirement
- Personal injuries (MTI, RWI, LTI)

## 10.0 continued

- Near misses (of a high severity potential)
- Plant upsets(of a substantive nature)
- Odour complaints
- Regulatory investigations
- Vehicle accidents
- Property damage
- Level III incidents

**INVESTIGATION TEAM**

Investigations will be conducted by an Investigations Team. The severity of the incident will determine the team make-up. The Safety Manager will be responsible to determine the make-up of the investigation team for Group 3 incidents (refer to Table 1). The team will also be required to write the investigation report.

**TABLE I**

<b>INCIDENT</b>	<b>TEAM MAKE-UP</b>
<b>MINOR</b> Internal Reportable Spill Odour Complaints Vehicle accidents, no injuries MTI, RWI Injuries	Branch Manager, Worker(s) and/or Lead Operator
<b>SERIOUS</b> Regulatory Reportable Spill Odour Complaints involving Regulators Property Damage > \$1,000.00	Branch Manager, Worker(s), Lead Operator, Safety Manager and/or District Manager
<b>MAJOR</b> LTI Injuries Near Misses (of a high severity potential) Plant Upsets (of a substantive nature) Regulatory Investigations Vehicle Accidents Involving Injury All Level III Incidents	Branch Manager, Worker(s) Lead Operator, District Manager, Safety Manager and/or Operations Manager

**10.0 continued**

Near misses of a major or serious nature must be investigated.

**INVESTIGATION REPORT**

Investigation reports are a formal record, which document the Corporation's response to incidents. Therefore it is imperative that Definite Oil Field Services Ltd. maintain high Incident Investigation standards.

The detailed report must include the following headings:

**Incident Particulars**

- Incident date
- Incident reported
- Nature of incident
- Operators on duty / operators involved in the incident
- Injuries sustained
- Agencies notified
- Estimate of property damage
- Estimate of spill clean-up cost

Spill clean-up estimates should include: internal labour costs; third party costs; facility down time - loss to process; property damage; loss of product; investigation time; and other relevant factors.

Estimate of property damage should include: cost to repair and/or replace property and interim rental costs where applicable.

**Investigation Team**

- Make up of the team members

**Investigation**

This brief summary covers the nature and scope of the investigation; investigation initiated by; who was interviewed and when; and the purpose of the report.

**Analysis**

The analysis should include a discussion of the chronological events leading to the incident, the nature of the incident and what actions were taken to respond.

The discussion should be brief yet address all relevant factors. The discussion should be factual not subjective.



10.0 continued

### **Causation**

This discussion must summarize the immediate and root cause(s) which resulted in the incident. See Figure 5.

Immediate causes are the substandard conditions and/or actions which resulted in the incident (failure to warn, using defective equipment, improper placement, poor housekeeping, inadequate guards etc.)

Root Causes are the specific personal or job related factors which resulted in the incident (lack of knowledge, stress, improper motivation, lack of skill, inadequate supervision, inadequate maintenance, inadequate equipment, inadequate engineering). Root causes should be listed in the order of greatest contribution to the incident.

10.0 continued

### **Recommendations and Action Plan**

This section must clearly indicate what measures are required to address the root cause(s) of the incident.

The recommendations should be specific, indicate completion target date and indicate who is responsible to complete the follow-up work. The time frame for completing the recommendations must be realistic and be completed in a timely manner.

### **Sign-Off**

The Investigation Team must sign the report.

### **Distribution**

The report must be submitted to Head Office.

## 1.0 GENERAL RULES

### 1.1 Speed

Observe posted speed limits. These limits are set for ideal conditions. Adjust your speed to suit the road and weather conditions. On Company property, the speed limit is 10km/hr unless posted otherwise. Remember when operating an Definite Oil Field Services Ltd. decaled vehicle; to other road users, YOU ARE THE COMPANY, so please govern yourself accordingly.

### 1.2 Seat Belts

Seat belts are to be worn at all times by all vehicle occupants. It is the responsibility of the driver to ensure that all occupants are secured by a seat belt prior to the vehicle being in motion.

No passenger shall be allowed to travel in any part of the vehicle that does not have properly attached seat belts.

### 1.3 Passengers

All passengers must receive clearance by Dispatch or the Safety Manager/Supervisor prior to riding, and must have an H2S ticket.

### 1.4 Equipment

All equipment must be properly maintained as specified in the Maintenance Policy. Please ensure proper securement of unattended equipment

### 1.5 Firearms

No employees or contractors shall have any firearms in their possession while working.

### 1.6 Horseplay

Fighting, horseplay, practical jokes or otherwise interfering with other workers is prohibited.

### 1.7 Radios

All units must be equipped with two-way radios with all necessary channels installed.

### 1.8 Workers Compensation

All owner operators must maintain, at their cost, Workers Compensation insurance.

## 1.9 Pre Trip/Post Trip

All drivers must conduct a pre-trip and post-trip every workday.

Drivers must not operate any vehicle if any unsafe condition or mechanical defect is found.

## 1.10 Emergency Equipment

All units operating under Definite Oil Field Services must carry the following:

Level 1 First Aid Kit  
Emergency Spill Kit

It is also recommended that post-emergency equipment such as, extra clothing, candles, matches, blankets and non-perishable food be carried during winter months.

## 1.11 Windshields and Headlights

Windshields should be kept free of cracks in the driver's line of sight and kept clear of the build up of contaminants on the inside. Headlights shall be used at all times that the vehicle is in motion. Use of headlights during day light hours has been shown to significantly reduce accidents.

## 1.12 Housekeeping

All employees (Contractors or Definite Oil Field Services) shall ensure that good housekeeping practices are continuously observed at Definite Oil Field Services work sites.

- Shop Inspection will be viewed on a voluntary inspection basis.
- Safety Supervisor will conduct inspections yearly if invited.
- Truck Inspection forms must be completed by owner operator every three months and returned to the office.
- Safety Supervisor will conduct random truck inspections.

## 1.13 Towing

When a unit gets stuck the driver must notify the dispatcher, and/or their supervisor.

Before the unit is towed, make sure the towing vehicle is capable of towing the stuck unit in a safe manner. Only cotton tow ropes or nylon webbed tow straps with no metal eyelets are to be used for towing.

## 1.13 continued

A tow rope or strap must be in good repair, load rated and of sufficient strength to safely carryout the towing operation.

**Chains and cables are not acceptable for towing.**

**Under no circumstances will ropes or straps equipped with metal hooks and chain tail ends, or any other type of clevis, be permitted.**

## 1.14 Cranes &amp; Hoists

All Cranes, Hoists and lifting devices must be used in accordance with OH&S and WCB regulations. The lifting devices must be properly marked to show load capacity and operators must be properly trained in the usage of the devices.

## 1.15 Rigging

Rigging must be conducted in accordance with OH&S and WCB regulations. Rigging procedures are under development,

## 1.16 Overhead Power lines

Extra attention is to be paid when working and driving near overhead power lines.

To avoid contact with power lines, equipment and workers must not approach power lines from any direction closer than the limits set below:

Voltage (V)	Limit of Approach	
	(FT)	(M)
0-5,000		2.0
5,000-50,000	10	3.0
50,000-250,000	15	4.5
Over 250,000	20	6.0

Must notify operator of an energized power line before work is done Or equipment is operated in the vicinity of the power line at distances Less than the safe limit of approach distance.

## 1.17 Overweight

Drivers must always be aware of density of all products because they can vary depending on product and production. Dispatch or the customer can obtain information on each product being hauled.

## 1.18 Accident Prevention

Safety meetings shall be held at minimum once every month. Pre-job safety meetings must be held and documented prior to commencement of any new, unfamiliar, non routine or potentially hazardous task.

## 1.19 Road Bans

Owner/Operators and their drivers must comply will all road bans, whether government or private company road bans

## 2.0 PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment for an owner/operator's employees and subcontractors (drivers and swamper) shall be supplied by the owner/operator and used wherever indicated by Definite Oil Field Services, the Contractor, or regulatory requirements.

Anyone who does not comply with health, safety and environmental requirements will be immediately removed from the site and may be subject to disciplinary action.

### 2.1 Head Wear

Hard hats must be worn on all Definite Oil Field Services work sites and must meet CSA Standards and be marked as such.

### 2.2 Clothing

Clothing must be a long-sleeved shirt and full length pants that are flame resistant. Flame resistant coveralls/outerwear should be worn when working on jobs near existing plants, batteries, rigs or pipelines. It is recommended that under layers of clothing be made of 100 natural fibre.

Fire resistant clothing is defined as having inherently fire resistant fibres such as Nomex IIIA, which will protect individuals from a three second flash fire and will not support combustion.

Outerwear excessively contaminated with hydrocarbons must be changed and laundered as it will pose a fire hazard and result in skin irritation (dermatitis). NYLON CLOTHING IS STRICTLY PROHIBITED.

Do not clean clothing by blowing with compressed air or washing in gasoline, kerosene, orvarsol.

### 2.3 Footwear

CSA approved Class I footwear is mandatory for anyone required to work, supervise, inspect or visit a fieldwork site. CSA approved boots can be identified by the green triangle on them. All boots must have a raised heel defined as having a minimum height of 13 mm (1/2inch). Safety toed running shoes are inadequate for this task.

## 2.4 Eye Protection

CSA approval eye-wear with side shields or face shields will be worn on all job sites. The use of contact lenses on Definite Oil Field Services work

sites is not acceptable even if proper safety glasses/goggles are worn for added protection. In instances where the eyes may be exposed to hazardous chemicals, eyewash facilities shall exist.

## 2.5 Hearing Protection

Wherever noise hazards in excess of 85 DBA exist, all persons entering the area must wear approved hearing protection.

## 2.6 Hand Protection

Wear suitable gloves when working with:

- Hot or cold temperatures
- Sharp objects
- Wire rope or cable

## 2.7 Personal Monitors

Sites that have the potential to develop flammable, toxic or explosive atmospheres require the use of personal monitors (O<sub>2</sub>, H<sub>2</sub>S, CO, LEL). All employees shall be trained in the proper use of these monitors prior to coming on site.

All H<sub>2</sub>S monitors must be inspected and recalibrated on a regular basis (according to their manufacturer's recommendation) and a record must be kept of each inspection. It is the owner operator's responsibility to ensure that the monitor is in working order.

Bump tests are to be performed on all monitors prior to each use, or according to manufacturer's recommendation, and a record kept for each test.





### 3.0 CONFINED SPACE ENTRY

All Vacuum Truck Operators and swamper must obtain ENFORM training certificate for Confined Space Entry and Rescue, before entering any vessel.  
 Carrier:  
 The person who transports the dangerous goods:

#### Confined Space Entry

**Confined Space Definition** - Any place that is difficult to get out of, this could be fairly simple like under a stair way or it could mean a place like inside a process vessel that has a sour atmosphere.

Before working in a confined space the worker should have completed a course in Confined Space Entry.

There can be many dangers associated with working in a confined space. The main danger has to do with the fact that if things go wrong, in some cases the worker cannot escape quickly.

Before entering any confined space the worker's should gather as much information as possible about the environment they are being asked to enter. Even if they are working in a "sweet field" do not assume the area is going to be "sweet" particularly if any fluid is involved, because someone may have hauled in some "sour" fluids. Sour fluids are particularly dangerous because they may not give off any H<sub>2</sub>S till they are disturbed. There are many other dangers associated with fluids in that they might be acidic or caustic or they could contain other hazardous ingredients that could poison the worker by absorption through the skin.

In our business, which mostly consists of moving fluids, in all likelihood any confined space work we have to do will involve fluids. This could be sucking out a pond, hole, depression or ditch, which all could be considered confined space depending on the circumstances. Never enter a depression or ditch unless the sides are shored up properly or the sides are back sloped at a 45° angle because the sides could collapse on the worker and bury him. The worker may also have to work down inside a tank which is considerably more dangerous or he may have to work inside a vessel which is probably the most dangerous of all of the places mentioned.

Whenever working in a confined space the worker should always wear a proper harness with a sturdy rope attached, there should be someone in charge of this rope, this person's sole responsibility is to pull the worker to safety, if necessary. Keep in mind it is not possible for one person to pull up another person, a hoist or more man power is required.

PPE - In most cases for most jobs the person entering a confined space should be wearing the following: Rubber Pants, Jacket, Boots and Gloves, this equipment will keep any dangerous substances away from his skin. A hard hat will protect his head. If breathing apparatus is not required goggles, will protect his eyes, a face shield will protect his face and both should be considered a necessity. If breathing apparatus is necessary a SABA (Supplied Air Breathing Apparatus) is the only type to wear. There must be some one in charge of looking after the main air bottle and air line, to see that no one runs over them and that they do not get tangled.

If having to work in a vessel, the first thing to check is to see that the air inside the vessel is safe to breath, make sure there is no danger of H<sub>2</sub>S and that there is no oxygen deficiency. If there is any doubt that the air in the vessel is not safe, wear a SABA. If the worker has to work inside a vessel there must be someone posted at the entrance, this could be the person watching the rope. This person must not leave his/her post while the worker is in the vessel.

## 4.0 TRANSPORTATION OF DANGEROUS GOODS (T.D.G.)

- Must load the goods properly and in accordance with their physical properties.
- Ensure the supplied placards are on the load.
- Carry the bill of lading and/or exemption.
- Retain a copy of the bill of lading.

### Receiver (Consignee):

The persons to whom the goods are sent to or who receive the goods.

### Labels

- Must ensure the goods are in proper order and condition.
- Retain a copy of the bill of lading.

### Shipping Document

Labels fall into one of the "eight classes" as seen at the end of this section.

Shipping documents require:

- Date.
- Must be numbered.
- Name and address of consignor (shipper).
- Name and address of consignee (receiver).
- Name of the initial carrier.
- Description of the goods in the following order:
  - 1) Shipping name.
  - 2) Primary classification.
  - 3) Compatibility group (explosives only).
  - 4) Subsidiary classification.
  - 5) Product identification (P.I.N.).

### Packing group.

- Total mass or volume on each package.
- Number and size of containers.
- 24 hour emergency number.
- The consignor's signature.
- The type and number of placards required.
- Instructions for safe handling.
- The Emergency Response Plan Number.

### Placarding

Must be visible from all sides of the vehicle. If required they must have the P.I.N. appear.

Replacements must be available for lost or damaged placards during transport.

## 4.0 continued

<b>Training</b>	All persons who may ship, transport or receive dangerous goods shall be trained in the basic rules of T.D.G. and shall be able to use the act and regulation consolidation that shall be available in the workplace.
<b>Function</b>	To outline the procedures required to ensure that dangerous goods are handled and transported safely and in such a way as to minimize the danger to life, health, property and the environment.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Procedures</b>	<p>The purpose of the Transportation of Dangerous Goods Act and Regulations is to protect the worker who handles, offers for transport, or transports dangerous goods including hazardous wastes by any means of transport.</p> <p>Relationship to other legislation:</p> <p>Transportation of Dangerous Goods</p> <ul style="list-style-type: none"> <li>- To protect the public.</li> </ul> <p>Hazardous Waste</p> <ul style="list-style-type: none"> <li>- To protect the environment.</li> </ul> <p>W.H.M.I.S.</p> <ul style="list-style-type: none"> <li>- To protect the worker.</li> </ul>
<b>Scope</b>	<p>T.D.G. regulations outline the procedures required to ensure dangerous goods are handled and transported safely and in such a way to minimize the danger to life, health, property and the environment.</p> <ul style="list-style-type: none"> <li>- A label will be attached and displayed on each container of dangerous goods.</li> <li>- A bill of lading will accompany each shipment of dangerous goods (exemptions negate this area if the specified rules in the regulations are adhered to).</li> </ul>
<b>Responsibilities</b>	<p>Shipper (consignor):</p> <p>The person who generate or sends the load of dangerous goods.</p> <ul style="list-style-type: none"> <li>- Must supply bill of lading.</li> <li>- Identify the dangerous goods.</li> <li>- Label the container.</li> <li>- Supply the proper placards if the load is in bulk.</li> <li>- Retain a copy of the bill of lading.</li> </ul>

## 5.0 WASTE MANIFESTING/DOCUMENTATION

**Function**

**Application**

**Discussion**

5.0 continued

### **Alberta Hazardous Waste Manifest**

To outline requirements for waste manifesting / documentation of waste shipments by Definite Oil Field Services Ltd.

All Definite Oil Field Services Ltd. personnel.

All personnel involved in the transport of waste that must have a clear understanding of manifests and / or shipping document that clearly meets all legislated requirements under the Federal Transportation of Dangerous Goods Regulations, and the appropriate Provincial Environmental Legislation.

The attached table outlines manifesting requirements depending on waste type and destination:

Note: "Hazardous Waste" in Alberta has the same meaning as "Special Waste" in BC

A Manifest is required when hauling "Hazardous Waste". A Manifest has three sections:

Section A, including a MSDS sheet, will be completed by the consignor/shipper representing the company that asks you to haul the product.

Section B, will be completed by the carrier/driver. The following information must be completed on the form:

- a. Provincial ID Number
- b. Company name and address must be completed.  
Definite Oil Field Services Ltd.  
11438-96th Avenue  
Grande Prairie, Alberta  
T8V 5M4
- c. Unit number
- d. Vehicle license number and trailer license if applicable.
- e. Point of entry and point of exit apply if you enter or leave the province.
- f. Date, signature and telephone number must be completed.
- g. You must have proper placards on your truck.
- h. The Manifest must be kept in the truck. You must hand the manifest to the consignee before unloading. The consignee will complete Section C of the Manifest, and then give the driver copy #4.
- i. You will hand this copy #4 into the office of Definite Oil Field Services Ltd.

Section C will be completed by the consignee/receiver representing the takes the product.

## 5.0 continued

**BC Special Waste Manifest (Federal Manifest) - Most commonly used**

Note: "Special Waste" in BC has the same meaning as "Hazardous Waste" in Alberta.

A Manifest is required when hauling "Special Waste". A Manifest has three sections:

- 1 Section A, including a MSDS sheet, will be completed by the consignor/shipper representing the company that asks you to haul the product.
- 2 Section B, will be completed by the carrier/driver. The following information must be completed on the form:
  - a. Provincial ID Number: LT 1034.
  - j. Company name and address must be completed.  
 Definite Oil Field Services Ltd.  
 P.O. Box 4072  
 Fort Nelson, BC  
 V0C 1R0
  - k. Vehicle license number and trailer license if applicable.
  - l. Point of entry and point of exit apply if you enter or leave the province.
  - m. Date, signature and telephone number must be completed.
  - n. You must have proper placards on your truck.
  - o. The Manifest must be kept in the truck. You must hand the manifest to the consignee before unloading. The consignee will complete Section C of the Manifest, and then give the driver copy #4.
  - p. You will hand this copy #4 into the office of Definite Oil Field Services Ltd.
- 3 Section C will be completed by the consignee/receiver representing the takes the product

## 5.0 continued

Waste Type	Destination	Manifesting Requirements
<p style="text-align: center;"><b>6</b> <b>7 SEM Regulated Waste</b> Saskatchewan</p>	<p>Waste Management Facilities within Saskatchewan.</p> <hr/> <p>Interprovincial transfer to another Waste Management Facility.</p>	<p>TDG Shipping Document</p> <hr/> <p>Dangerous: Federal Manifest. Non Dangerous - Standard shipping documents indicating non-dangerous.</p>
<p>Waste Dangerous Goods Saskatchewan</p>	<p>Interprovincial or within Saskatchewan.</p>	<p>Federal TDG Manifest.</p>
<p>Special Waste British Columbia</p>	<p>Interprovincial or within British Columbia.</p>	<p>Federal TDG Manifest.</p>
<p>Crude Oil Waste British Columbia</p>	<p>Interprovincial Transfer:</p> <hr/> <p>Within British Columbia.</p>	<p>Dangerous: TDG shipping document.</p> <hr/> <p>Non-Dangerous: Standard shipping document indicating non-dangerous.</p>
<p>Dangerous Oilfield Waste Alberta</p>	<p>Interprovincial Transfer.</p> <hr/> <p>Within Alberta.</p>	<p>Federal TDG Manifest.</p> <hr/> <p>EUB Waste Manifest.</p>
<p>Non-Dangerous Oilfield Wastes Alberta</p>	<p>Interprovincial or within Alberta.</p>	<p>EUB Manifest indicating non-dangerous.</p>
<p>Hazardous Wastes Alberta</p>	<p>Interprovincial or within Alberta.</p>	<p>Federal TDG Manifest.</p>
<p>Hazardous Recyclables Alberta</p>	<p>Within Alberta.</p> <hr/> <p>Interprovincial Transfer.</p>	<p>Recycle Docket.</p> <hr/> <p>Federal TDG Manifest.</p>
<p>Non-Hazardous Industrial Waste Alberta</p>	<p>Interprovincial or within Alberta.</p>	<p>Shipping document indicating non-hazardous designation.</p>



## 5.0 continued

The waste types classified in the table are defined as the following:

<b>SEM Regulated Waste (SASK)</b>	Waste materials contaminated with crude oil or produced water and are generated from exploration, drilling, or production activities.
<b>Waste Dangerous Goods (SASK)</b>	Dangerous goods that are no longer used for their original purpose.
<b>Special Waste (B.C.)</b>	Dangerous goods that are no longer used for their original purpose.
<b>Crude Oil Waste (B.C.)</b>	Waste materials generated as a result of oil and gas production or drilling and contaminated with salt water or crude oil.
<b>Dangerous Oilfield Waste (AB)</b>	Wastes having dangerous properties generated in the upstream Petroleum industry in Alberta.
<b>Non-Dangerous Oilfield Waste (AB)</b>	Wastes that are non-dangerous and generated in the upstream Petroleum industry.
<b>Hazardous Waste (AB)</b>	A waste that has one or more to the properties described in Schedule (1) of the WCR, but does not include those wastes listed in Schedule (2).
<b>Hazardous Recyclables (AB)</b>	A recyclable that has one or more of the properties described in Schedule 1 of the WCR.

## 6.0 EMPLOYEE AND CONTRACTOR ORIENTATION

When owner/operator, driver or swamper is hired to work for Definite Oil Field Services Ltd. they must follow the procedures outlined below:

- Complete employment application
- Supply three references
- Have 100 hours training for safe operation of the unit in which they will be operating
- Obtain a current driver's abstract
- Must be willing to participate in Definite Oil Field Services Drug and Alcohol Testing, both pre-hire and quarterly random selection
- Obtain all safety certificates, which are required by Definite Oil Field Services Ltd.
- Inspection must be complete on all equipment by the Definite Oil Field Services Safety Supervisor

The above criteria, is only a guide. Each application should be judged on an individual basis, as there can be extenuating circumstances.

### 6.1 Driver Responsibilities

- Check the shipment for labels and damage before accepting it
- Check documentation to make sure it is accurate
- Ensure that chains are used in all adverse conditions
- Ensure that the load is secure.
- Determine if placards are required for the load
- Affix any required placards to each side, front and rear of the transport unit
- Carry the shipping document in the regulated locations
- Maintain and/or replace any damaged or lost placards en route
- Ensure copies of the bills of lading are received by the consignee, consignor and carrier
- Assist in containing a dangerous goods spill
- Be able to produce valid certificates of training

**DRIVER ORIENTATION CHECKLIST**

Name: \_\_\_\_\_ Unit #: \_\_\_\_\_

Orientation Conducted by: \_\_\_\_\_

Date: \_\_\_\_\_

- \_\_\_\_\_ I have received a copy of Definite Oil Field Services's Safety Manual
- \_\_\_\_\_ Statement of Acknowledgement – Safety Manual (Sign)
- \_\_\_\_\_ Alcohol and Drug Testing (Sign)
- \_\_\_\_\_ Statement of Acknowledgement – Personal Information Release (Sign)
- \_\_\_\_\_ Safety Do's and Don'ts (Sign)
- \_\_\_\_\_ Reporting HID's/Near Misses
- \_\_\_\_\_ Personal Protective Equipment
- \_\_\_\_\_ Vehicle Inspection Report
- \_\_\_\_\_ Log Book
- \_\_\_\_\_ Way Bills (see example)
- \_\_\_\_\_ Voucher
- \_\_\_\_\_ Monthly Truck Maintenance Report (see Truck Owner)
  
- \_\_\_\_\_ Hazardous Waste
  
- \_\_\_\_\_ Placards required, as follows
  - Used lube oil is "Hazardous Waste" (Any product that goes into a well or comes from a well is NOT "Hazardous Waste")
  - Condensate – 1268
  - Methanol – 1230
  - Crude Oil – 1267
  - Diesel – 1202
- \_\_\_\_\_ Safety Meeting Attendance
- \_\_\_\_\_ Oil Company Orientations

Definite Oil Field Services Ltd. has reviewed the above items with me (Driver) \_\_\_\_\_.  
 I understand that this will be reviewed again with me in a month, I also understand that if I am ever in doubt about what I should do, I must contact Definite Oil Field Services's office for assistance or clarification.

Number of years Driving Experience \_\_\_\_\_

\_\_\_\_\_  
 Signature of Driver

\_\_\_\_\_  
 Date



It is standing policy of Definite Oil Field Services Ltd. to maintain for all its employees a work environment conducive toward maximum safety and optimum work standards. In application of this policy, the following is strictly enforced:

**Illicit Drugs or Narcotics**

The use, possession, transportation or sale of illicit drugs, drug paraphernalia or narcotics by an employee is prohibited.

Whenever illicit drugs or narcotics are detected through blood or urine analysis or other procedures, or it becomes otherwise known that an employee has in possession or is using, purchasing, or selling illicit drugs or narcotics on or off Definite Oil Field Services's premises, the employee will be subject to disciplinary action up to and including immediate discharge.

**Alcohol**

The unauthorized use, possession, sale or transportation of alcohol by an employee or being under the influence of alcohol, while on duty, while on Company premises or in any Company vehicle, or while on the job site of a customer is prohibited. Any employee who violates the prohibition will be subject to disciplinary action up to and including immediate discharge.

**Quarterly Random Drug and Alcohol Testing**

As a condition of employment, the Company requires randomly selected employees to provide urine samples for chemical tests/analysis and to submit to breathe analysis on a quarterly basis. The selection of participants is 100% random and participants, without prior notice, will be instructed to complete these random tests at a time and location indicated by the Company.

Employees have the right to refuse cooperation in the requested tests; however, refusal to cooperate in such tests by any employee will be cause for disciplinary action up to and including immediate discharge.

**ACKNOWLEDGEMENT AND UNDERSTANDING**

I have read the above policy and understand its contents. I understand that the Company requires its employees to work under and abide by this policy. I understand that there will be both pre-employment and quarterly random drug and alcohol testing and that if I refuse or do not pass a test, disciplinary action or immediate discharge may be undertaken.

Signed in the presence of:

Executed by:

Date:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Witness Signature

Employee/Applicants Signature

\_\_\_\_\_

Print Name



**JOB APPLICATION**

Date: \_\_\_\_\_

Owner/Operator \_\_\_ Driver \_\_\_ Swamper \_\_\_

Name: \_\_\_\_\_

Owner Operator Company: \_\_\_\_\_

Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Unit Number: \_\_\_\_\_

Driver Phone #: \_\_\_\_\_

Cell Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Other Number: \_\_\_\_\_

Resume on File: Yes \_\_\_ No \_\_\_

**PERSONAL INFORMATION**

Social Insurance Number: \_\_\_\_\_

Are you legally permitted to work in Canada? Yes/No

Were you previously employed by this Company? Yes/No

Do you have a condition or disability which may affect your ability to work? Yes/No

Are you prepared to take a Company Drug and Alcohol test? Yes/No

Have you had any recent work-related incidents? Yes/No

List all vehicle accidents (if any) you have had in the past three years: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

Driver's Licence #: \_\_\_\_\_ Province \_\_\_\_\_ Expiry \_\_\_\_\_

WCB# (If New Owner/Operator): \_\_\_\_\_ Province \_\_\_\_\_

**DRIVING HISTORY**

Type of Truck	Years Experience	Certificates	Expiry
Body Job _____	_____	H2S # _____	_____
B-Train _____	_____	1 <sup>st</sup> Aid _____	_____
Super-B _____	_____	TDG: _____	_____
Vacuum _____	_____	WHMIS: _____	_____
Quad _____	_____	Confined Space: _____	_____
Tri-Axle _____	_____	PST: _____	_____
Semi _____	_____	Other: _____	_____

**PREVIOUS EMPLOYERS**

Name of Company: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Address: \_\_\_\_\_

Dates Employed: From: \_\_\_\_\_ To: \_\_\_\_\_  
 YY/MM/DD YY/MM/DD

Job Held (title): \_\_\_\_\_ Job Duties: \_\_\_\_\_

Supervisors Name: \_\_\_\_\_ Reason for Leaving: \_\_\_\_\_

Comments: \_\_\_\_\_

Can we contact this company for a reference check? Yes/No

---

Name of Company: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Address: \_\_\_\_\_

Dates Employed: From: \_\_\_\_\_ To: \_\_\_\_\_  
 YY/MM/DD YY/MM/DD

Job Held (title): \_\_\_\_\_ Job Duties: \_\_\_\_\_

Supervisors Name: \_\_\_\_\_ Reason for Leaving: \_\_\_\_\_

Comments: \_\_\_\_\_

Can we contact this company for a reference check? Yes/No

---

Name of Company: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Address: \_\_\_\_\_

Dates Employed: From: \_\_\_\_\_ To: \_\_\_\_\_  
 YY/MM/DD YY/MM/DD

Job Held (title): \_\_\_\_\_ Job Duties: \_\_\_\_\_

Supervisors Name: \_\_\_\_\_ Reason for Leaving: \_\_\_\_\_

Comments: \_\_\_\_\_

Can we contact this company for a reference check? Yes/No

---

Types of Products you have experience hauling: \_\_\_\_\_

\_\_\_\_\_

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Unit Information \*\*\*FOR NEW OWNER/OPERATORS ONLY\*\*\*

Definite Oil Field Services Unit # \_\_\_\_\_ Year \_\_\_\_\_ Make \_\_\_\_\_ Model \_\_\_\_\_

Definite Oil Field Services Unit # \_\_\_\_\_ Year \_\_\_\_\_ Make \_\_\_\_\_ Model \_\_\_\_\_

---

All information provided in this application form is true to the best of my knowledge and recollection. I understand that if any statements made are found to be false, it could result in immediate dismissal from Definite Oil Field Services Ltd.

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Date

## 7.0 EMPLOYEE AND CONTRACTOR TRAINING

Employees and contractors must be trained in safe work practices as well as generic field oriented training which may include, but is not necessarily limited to, First Aid, H2s Alive, respiratory protection, WHMIS and TDG. Upon request, proof of training must be provided to an Definite Oil Field Services representative.

<b>COURSE NAME</b>	<b>CERTIFICATE ISSUED BY:</b>	<b>RENEWAL (YEARS)</b>	
H <sup>2</sup> S Alive	ENFORM	3	
Standard Emergency First Aid (Alberta)	St. John/Red Cross	3	
Occupational First Aid Level 1 (BC)	WCB of BC	2	
TDG	Definite Oil Field Services	3	3
WHMIS	Definite Oil Field Services	3	3
Confined Space	ENFORM	3	
General Oilfield Driver Improvement	ENFORM	3	
Petroleum Safety Training	ENFORM	3	

## 8.0 OWNER OPERATOR TRAINING SUPPORT PROGRAM

All owner operators are responsible to ensure that all new drivers for their units are made aware of all policies and procedures of Definite Oil Field Services Ltd. and follow all Government rules and regulations. All drivers operating under Definite Oil Field Services Ltd. will be observed and documented at random to ensure that all maintenance, driving abilities, loading and unloading procedures, and all policies are carried out and completed in a professional manner.

When any documentation is processed, all original documentation will be kept at the Corporate Office in Fort St. John.

### 8.1 Short-Service Worker Program

New workers, whether new to the company, a job or a worksite, are at -greater risk of injury than more knowledgeable and skilled workers. The short service worker (SSW) program therefore, provides a structured approach to orientating, training, mentoring and controlling new workers.

The SSW program establishes the basic skills and knowledge to perform safe work and provides a basic understanding of our safety culture.

#### **Regulations**

Regulations include occupational health and safety regulations, as well as, all regulations, policies and procedures outlined in the Definite Oil Field Services Ltd. Safety Manual.

#### **Standards**

Definite Oil Field Services Ltd. must ensure that new workers are enrolled in our company's SSW program and remain enrolled until they:

1. have been in the SSW program under a mentor for a minimum of 100 hrs or at least 2 weeks steady work.
2. are competent in the basic skills required to do safe work.
3. understand and are committed to our safety culture.



## 8.1 continued

Definite Oil Field Services Ltd. must ensure that all trainers and mentors have:

1. an understanding of the material they are teaching
2. effective training skills
3. a positive safety attitude and an understanding of our corporate safety culture.
4. responsibility for safety of their short service workers during the SSW period.

**ALL WORKS MUST:**

1. provide instruction, coaching and additional safety precautions for short service workers to ensure their safety.
2. not request a short service worker to do new tasks they are not trained for or competent in.
3. all short service worker must either wear a *Green Hard Hat* or have a *Green Hand* sticker displayed during their training period.

## 9.0 PAPERWORK COMPLETION

### 9.1 Bill of Lading Completion

Bills of Lading must be filled out accurately and completely. It is a contract between the shipper and Definite Oil Field Services Ltd.

Since dangerous goods differ from each other, so will the information that is required on a document. Basic information that is required on all documents is as follows:

- The document must be legible.
- It must be prepared by the consignor or under his or her authority.
- It must be dated.
- The document must have an identification number.
- It must be signed/marked under the authority of the consignor.
- A copy must be delivered to the initial carrier.
- The consignor, carrier and consignee each must retain a copy of the document for two years.

In addition, the document must include the following minimum information:

- Name and address of the consignor (shipper).
- Name and address of the consignee (receiver).
- Name of the initial carrier.

And a description of the dangerous goods in the following order:

- Proper shipping name.
- Primary classification.
- Any subsidiary classification, in parentheses.
- Product identification number (as UN).
- Packing group (as I, II, or III).
- Original shipping document must be marked "Empty - last contained" unless unit has been cleaned or purged.

## 9.1 continued

The document must also include:

- Total mass or volume of each dangerous good.
- 24 hour telephone number where the consignor carrier can be reached.
- Number and type of placards.

## 9.2 National Safety Code - Log Book/Hours of Service

All drivers must comply with the provisions of the National Safety Code. They must understand the "Hours of Service" restrictions that may be applicable on a daily basis, and must maintain and submit log book records as required by law. It is Definite Oil Field Services' company policy for all drivers to complete logs.

In accordance with Federal Hours of Service regulation, logs sheets for each driver must be retained by Definite Oil Field Services Ltd. for a period of 6 months.

### 9.2.1 En-route Inspection and Safety Check

To be carried out approximately every 1.5 to 2 hours on pavement and every 1 to 1.5 hours on gravel. The first en route inspection is to occur with the first hour of starting your trip.

- Pull completely off the road into a safe location.
- Begin your en-route inspection by walking down the driver's side of your unit against the flow of traffic.
- Physically check tire pressure.
- Visually check for oil & coolant leaks.
- Check all wheels, wheel nuts, feel hubs for excessive heat and check oil levels in sight glasses.
- Inspect air hoses and connections.
- Clean windshield, lights and license plates when necessary.
- Complete a through visual inspection of your equipment.
- Drain air tanks periodically to ensure air system is free from moisture and freezing (at least every 24 hours).
- Check oil and coolant levels when fuelling.
- Ensure load remains secure.

## 9.2.2 Hours of Service for British Columbia

**Daily Hours:** A carrier must not permit a driver to drive, and a driver must not drive:

- More than 13 hours following at least 10 hours off, 8 of which must be consecutive hours off duty.
- After 14 hours on duty following at least 10 hours off, 8 of which must be consecutive hours off duty.

**Exemptions:**

A driver may exceed the on-duty period by not more than 2 hours in the case of adverse driving conditions provided the trip could be completed within the regulated hours under normal conditions.

A driver may, in an emergency, exceed the time limits in order to complete a trip or reach a destination that provided safety for the occupants or for other users of the road or for security of the vehicle and its load.

ICBC may exempt vehicle conditionally or unconditionally. A copy of the exemption permit must be carried in the vehicle.

**Accumulated Hours:**

A carrier must not permit a driver to drive, and a driver must not drive unless they are in compliance with one of the following schedules:

- 70 hours of on-duty in 7 consecutive days
- 120 hours of on duty in 14 consecutive days, provided the driver takes at least 24 consecutive hours off duty before each 70th hour.

### 9.2.3 Hours of Service for Alberta

- You must always have 8 consecutive hours off prior to your driving shift.
- You must never drive more than 13 consecutive hours.
- You must never drive after being on duty for 14 hours.
- Two sleeper berth times can be added together to equal 8 hours off (no more than 2 hours).
- Uninterrupted Sleeper Berth and Off-duty time can be added together to achieve 8 hours off.

## 10.0 MAINTENANCE

This maintenance program pertains to all trucks, tractors and trailers registered to Definite Oil Field Services Ltd.

It is the responsibility of the carrier, Definite Oil Field Services Ltd., to comply with all transportation regulations, ensuring that no vehicle is dispatched in an unsafe condition. Definite Oil Field Services is obligated by various transportation regulations to ensure all vehicles are continuously and regularly inspected and repaired immediately when necessary.

To operate with Definite Oil Field Services Ltd., the owner/operators at all times agree to follow the Company's maintenance guidelines, which are as follows:

1. Maintain the vehicle(s) in safe operating condition, suitable for the intended purpose and in compliance with all laws and company regulations.
2. Keep vehicle(s) washed and clean.
3. Supply and provide all fuel, oil, tires, hoses and all other replacement parts as necessary or advisable to perform the obligations of the owner in the manual.
4. Place Definite Oil Field Services Ltd. decals on the unit, in colors and locations specified by the Company.
5. Furnish all accessories required by all laws and company regulations.
6. Complete scheduled maintenance, in accordance with manufacturer's recommended maintenance schedules and Company policy.
7. Complete a maintenance report, provided by Definite Oil Field Services Trucking Ltd., and submit to office by the third day of each month, along with all corresponding invoices for repairs.
8. Have Commercial Vehicle Inspections completed on trucks and trailers by licensed inspection facility on or before expiry dates specified on inspection certificates.
9. Have tank inspections (if applicable) completed by licensed inspection facility, in accordance with CSA (Canadian Standards Association) regulations B620-03, Highway Tanks and Portable Tanks for the Transportation of Dangerous Goods.

### 10.1 Regularly Scheduled / Preventative Maintenance

Vehicle owners are required under this maintenance program to follow preventative maintenance guidelines, set out by both the vehicle manufacturers and Definite Oil Field Services Ltd.

**10.1 continued**

Monthly maintenance reports are to be submitted to Definite Oil Field Services by the third day of each month for the previous month. These reports outline the following aspects of maintenance:

1. Regularly scheduled
  - a. Oil and filter changes
  - b. Lubrications (ex: suspension, pins, tie rods, axles, drivelines, slack adjusters, fifth wheel (if applicable) door seals, latches and hinges, etc.)
2. Preventative maintenance - ensure proper function/condition of:
  - a. Body, doors, seats, fenders, bumpers, mud flaps, sun visors, latches, door releases, chassis frame, underbody, drive shaft hanger, brackets, guards, windshield(s), windows, mirrors.
  - b. Fuel tank, filler cap and fuel lines, exhaust system
  - c. Brake friction components, hydraulics, vacuum and air components, mechanical components, service brake pedal, air brake system, parking brake, emergency brake and service brake.
  - d. Engine controls, steering column and box, wheel alignment, steering linkage
  - e. All suspension components
  - f. Horn, windshield wipers and washers, heating and defrosting, starting switch, lamps, lights and reflectors.
  - g. Tires, wheel studs, rims and bearings.
  - h. Lubrication components
  - i. Fifth wheel coupling devices, trailer hitch, trailer mounting and connecting devices, (trailers only)

Along with the maintenance report, a copy of all invoices or documentation supporting any repairs must be submitted to Definite Oil Field Services.

**10.2 Inspection requirements**

Commercial Vehicle Mechanical Inspections are required and improve highway safety by ensuring that all commercial vehicles are in safe operating condition.

Owners are required to have vehicles mechanically inspected by a licensed inspection facility in accordance with provincial government transportation requirements and National Safety Code regulations. Copies of all inspections are to be kept in vehicle file(s) at Definite Oil Field Services Trucking Ltd. office.



10.2 continued

Inspection decals must be displayed in a visible place on the passenger side (right side) of the cab. If the vehicle fails the inspection, a decal will not be issued until required repairs are completed.

Commercial Vehicle Inspection Program (CVIP) - BC

Commercial Vehicle - GVW over 17,300kg      Semi-Annually  
 Commercial Vehicles = GVW under 17,300kg      Annually  
 Commercial Trailers      Semi-Annually

Commercial Vehicle Inspection Program (CVIP) -AB

Commercial Vehicles & Trailers      Annually

All tanks must be inspected in accordance with the Canadian Standards Association (CSA) Standard B620-03 - Highway tanks and portable tanks for the transportation of dangerous good (below). Copies of all tank inspections must be submitted to Definite Oil Field Services Ltd.

B620-03

©Canadian Standards Association

Table 7.1  
 Periodic Inspection and Test Intervals  
 (See Clauses 7. 1.1, C1,C2 and C6)

Description of tank	Clause 7.2.1 External Inspection	Clause 7.2.2 Internal Inspection*	Clause 7.2.3 Lining inspection	Clause 7.2.5 Leakage test	Clause 7.2.7 Pressure test, hydrostatic or pneumatic	Clause 7.2.6 Thickness test†
TC 306 or TC 406 tanks‡	1 year	5 years	—	1 year	5 years§	—
TC 306 Crude or TC 406 Crude tanks	2.5 years	5 years	—	2.5 years	5 years§	—
TC 307 or TC 407 tanks	1 year	5 years	—	1 year	5 years	—
TC 312 or TC 412 tanks	1 year	5 years	—	1 year	5 years§	—
TC 423 tanks	1 year	1 year	—	1 year	5 years	—
TC 350 tanks	6 months	1 year	—	1 year	2 years	—
TC 350 Crude tanks	1 year	1 year	—	1 year	2 years	—
TC 331 tanks	1 year	5 years	—	1 year**	5 years**	—
TC 338 tanks	1 year	—	—	—	5 years	—
TC 341 tanks††	1 year	10 years	—	—	10 years	—
TC 11 portable tanks	1 year	10 years‡‡	—	1 year	5 years	—
TC 51 portable tanks	2.5 years§§	5 years	3 years	—	5 years	—
TC 56 and 57 portable tanks***	2.5 years	—	—	—	2.5 years	—
TC 60 portable tanks	2 years	Initial: 4 years Next 8 years: every 2 years After 12 years: annually	Initial: 4 years Next 8 years: every 2 years After 12 years: annually	—	Initial: 4 years Next 8 years: every 2 years After 12 years: annually	—

\*Where a tank, other than a TC 341 tank, is not equipped with a manhole or inspection parts, a hydrostatic or pneumatic test shall be performed at the interval for the internal inspection, (See Note ††)

†The thickness test is performed as part of the internal inspection, except that it does not apply to FRP tanks.

‡TC 306 and TC 406 tanks complying with CAN/CSA-8836 that are in dedicated service as aviation refuellers and operate only on airport property are exempt from internal inspection and hydrostatic or pneumatic pressure tests. Tanks shall be marked "Dedicated Aviation Refueller Restricted to Use on Airport Property."

§Pressure tests shall not be required for uninsulated lined tank trucks and trailers with a design pressure or MAWP of 103kPa (15psig) or less, if an external inspection and a lining inspection have been performed annually.

\*\*TC331 tanks in chlorine service shall be pressure tested and leak tested every two years. Pressure tests shall not be required on TC331 tanks when in sodium metal service.

††As an alternative to the inspection and test requirements of this Table for TC341 tanks, owners may perform the tests and inspections described in Appendix C.

‡‡Internal inspections do not apply to TC 11 tanks that are less than 2350 L(620 US gal) and that do not have inspection openings.

§§The external inspection period may be extended to 3 years for tanks outlined in CSA B622, Clause 6.3, Specific Requirement 5.5.

\*\*\*TC56 and TC57 tanks shall be inspected and retested in accordance with Section 7 of CAN/CGSB-43.146.

## 10.2 continued

©Canadian Standards Association

Highway Tanks and Portable Tanks for  
the Transportation of Dangerous Goods

Table 7.2  
Additional Periodic Inspection and Test Intervals  
(See Clauses 7.1.1 and C6.)

Description of tank	Clause 7.2.1 External inspection	Clause 7.2.2 Internal inspection*	Clause 7.2.3 Lining inspection	Clause 7.2.5 Leakage test	Clause 7.2.7 Pressure test, hydrostatic or pneumatic	Clause 7.2.6 Thickness test††	Clause 7.2.4 Upper coupler area inspection
All tanks designed to be loaded by vacuum, with full opening rear heads	6 months**	—	—	—	2 years	—	—
All lined tanks, trucks, and tank trailers in corrosive service	—	1 year	1 year	—	—	—	—
All lined tanks, trucks, and tank trailers not in corrosive service††	—	—	5 years	—	—	—	—
All unlined tanks, trucks, and tank trailers in corrosive service‡	—	1 year	—	—	—	2 years§	—
All insulated tanks, trucks, and tank trailers‡	—	1 year	—	—	—	—	—
All insulated highway and portable tanks, lined or without manhole‡	—	—	—	—	1 year	—	—
All tank trailers equipped with an upper coupler	—	—	—	—	—	—	5 years

\*Where the tank is not equipped with a manhole or inspection parts, a hydrostatic or pneumatic test shall be performed at the interval for internal inspections.

†Except TC 338 and 341 tanks.

‡Except TC 331, 338, and 341 tanks.

§If the thickness is such that less than 20% of the corrosion allowance remains, a thickness test shall be performed annually.

\*\*Except TC 350 crude tanks.

††The thickness test does not apply to FRP tanks.

‡‡Lined tanks not in corrosive service shall have their lining visually inspected but the marking requirements of Clause 7.4.3 e) shall not apply.

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### 10.3 Definite Oil Field Services Truck Inspection Sheets

Definite Oil Field Services Safety Personnel will randomly inspect vehicles and will complete a truck inspection sheet for the unit file. This inspection sheet is to ensure compliance with all regularly scheduled and preventative maintenance issues, mechanical and tank inspection requirements, safety equipment and paperwork requirements.

### 10.4 Breathing Air Apparatus

**Self contained Breathing Apparatus:** This apparatus supplies compressed air from a cylinder worn on the back to a full-face piece. This apparatus must be of the type that maintains positive pressure in the face piece. The cylinder must be rated to supply air for at least 30 minutes. All self-

## 10.4 continued

contained breathing apparatus' must be equipped with an alarm.

Supplied Air Breathing Apparatus: This apparatus supplies air from cylinders, or a compressor in a remote location via a hose to a full-face piece. The apparatus must be of a type that maintains positive pressure in the face piece, equipped with an escape bottle and has a minimum hose length of 30m from the manifold or regulator.

**All SCBA / SABA's must be tested as per manufactures specifications and a copy of the results is required in their file, as well as all working owner operators; drivers and swampers have to be fit tested and a copy of this in their file.**

**The carrying of a self contained breathing apparatus is required on all units.**

**10.4.1 Fit Testing**

To ensure a proper seal, all drivers/swampers are required to be fit tested for their type of breathing apparatus. Fit test results must be submitted to the office and kept on file.

## 10.5 Fire Extinguishers

Fire Extinguishers must be tested as specified by manufactures and a copy of the testing required in office file.

Contractors shall supply and maintain their own fire extinguishers, and shall ensure ail workers under their direction are proficient in the proper maintenance, inspection and use of fire extinguishers.

Ail fire extinguishers shall be suitable to the hazard, and for vehicles be at least 30 lbs. dry chemical (Purple K or other ABC type) with the appropriate TDG and WHMIS labels. All fire extinguishers must be inspected, maintained, and located in accordance with NFPA 10 guidelines (monthly inspections, yearly maintenance.) Employees (Definite Oil Field Services or

Contractor) must be familiar with the location and use of fire fighting equipment at the work site.

## 10.6 Spill Kits

**All units are required to carry a spill kit.** A spill kit will be given to each owner operator when either a new unit comes onto the fleet. Replacement supplies for spill kits are available at the office. The cost of the spill kit and/or replacement supplies will be charged back to the owner/operator.

## 10.7 Hose testing

All hoses and couplings should have a pressure rating that meets the requirements of the loading or off loading facility.

- Visual test of hoses and fittings should be done daily during pre-trip.
- Hoses will also be inspected during Truck Inspections.
- Hydrostatic Testing is an annual preventive maintenance practice.

**All hoses must be re-tested annually and a copy of the test will be kept in the office.**

## 10.8 Shop Inspection

Shop inspections will be conducted on request quarterly by owner operator and by safety supervisor.

Documentation will be kept in the maintenance files.

**To be reviewed on voluntary basis by the safety supervisor and handed into the office. Safety Supervisor will also complete the shop Inspections by invitation.**

## 10.9 Contractors Vehicles

- All contractors' vehicles must be maintained in safe operating condition and operated in a safe manner.
- Vehicles should be clearly marked and the unit number displayed.
- All contractor units must have an acceptable exhaust system, including mufflers.
- Vehicles should contain only as many passengers as there are seats and seat belts.

### 10.9.1

#### Corporate Decals

All decals on all service equipment will be red.

On the tank (barrel) or end dump box, a black and white backer may be utilized in order to work with the aesthetics of the unit.

The decals on the doors must also be red; however any color backer can be utilized in order to maintain the aesthetics of the cab.

#### 10.9.1.1 Placement

Tank Trucks The placement of the corporate decal on tanked unit trucks may vary slightly due to the configuration or rigging of the unit, however the optimum location of the decal on tanked units is centered left to right, top to bottom.

End Dumps The placement of the corporate decal on end dump box units will be in the front third of the end dump box and centered up and down.

**10.9.1.1 continued**

This however may vary slightly due to box construction or rigging. However the placement should be as close to policy as aesthetically possible.

**10.10 Flares or Warning Triangles**

All units must be equipped with a minimum of three warning triangles, which are to be placed at a distance of 3 meters and 30 meters behind the vehicle and another at a distance of 30 meters ahead. It is good safety practice to place additional warning devices further than 30 meters from your vehicle especially if you are on or over a hill.

**Flares or warning triangles must be used at all times when unit is out of service on any public road.**

**10.11 Cargo Securement**

All cargo (including hoses) must be secured in accordance with AB OH&S Code and BC WCB regulations.

**10.12 Positive Air Shutdowns**

All vehicles that enter potentially hazardous locations must have a combustion air intake and exhaust discharge that are equipped with a flame arresting device (positive air shutdown or "rig saver").

Vehicles not equipped with positive air shutdowns must remain located outside of hazardous or potentially hazardous locations.



**Shop Inspection**

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Unit#: \_\_\_\_\_

Inspector: \_\_\_\_\_

		Yes	No
1	Fire extinguishers ready for use?		
2	Compressed gasses safely stored?		
3	Waste rags safely stored?		
4	Tools clean & stored in their proper places?		
5	Electrical Cords in good condition?		
6	Grinding wheels in good condition?		
7	Grinder tool rest, properly set?		
8	Eye protection and face shield stored close to grinder?		
9	Are there piles of unsecured material that could fall?		
10	Is the exit from the shop blocked in any way?		
11	Are there any slippery substances on the floor?		
12	Are ladders and climbing devices in a safe serviceable condition?		
13	Is the First Aid Kit properly stocked and in good condition?		
14	Is the First Aid Kit in a good location?		
15	Are items properly labeled for WHIMS & MSDS?		
16	Is the Eye Wash station in place and ready for use?		
17	Condition of house keeping?		
18	Are welding helmets in place and usable?		
19	Are ventilation hoses available?		
Remarks:			



## H<sup>2</sup>S Checklist

### 1. Pre -Trip Checklist

*Do You Know...*

- \* The H<sup>2</sup>S concentration of the product to be handled?
- \* The use and limitations of your personal monitor?
- \* Is your personal monitor maintained and operational?
- \* The use, fitting and limitation of the breathing apparatus provided?
- \* If the breathing apparatus is operational?
- \* If the air supply is adequate? (1,200 P.S.I. PER DAY, 700 P.S.I. PER LOAD)  
SABA, (30 MINUTES), SCBA.

### 2. Upon Arrival at the Site

- \* Check for wind direction before entering.
- \* Check for (and read) all posted signs.
- \* Check personal monitor for operation.
- \* Attach personal monitor to yourself.
- \* Check all breathing apparatus for operation.
- \* On all leases known to be above 10 ppm H<sup>2</sup>S, put on breathing apparatus upon arrival.
- \* Use wheel chocks.
- \* Hook up ground cable.

### 3. Loading / Unloading Procedures

- \* While "in attendance" remain upwind whenever possible.
- \* Wear your personal monitor at all times to warn you of accidental releases of H<sup>2</sup>S.
- \* Treat first load of sweet product after handling sour product as sour, always be alert to possible presence of H<sup>2</sup>S.
- \* Close all vents and hatches before traveling, both empty and loaded.
- \* Let people in area know you are handling sour product.

#### **Wear breathing apparatus when:**

- Coupling – Uncoupling
- Opening or closing vents
- Ambient H<sup>2</sup>S levels exceed 10 ppm.



## Class One – In Cab - Air Test

### **Start Engine**

1. Check gauges (oil, temp, amps, air).
2. Build up air pressure (900 to 1100 RPM).
3. Watch air gauge: 50-90 P.S.I. in less than 3 minutes.
4. Check that low air warning (light or buzzer) goes off at 70 P.S.I. or higher (note exact pressure).
5. Check compressor cut out (note pressure).
6. Release spring brakes (to prevent compounding).
7. Fan down to check cut in pressure (approx. 20 P.S.I. below cut-out pressure).
8. Continue fan down to check low air warning operates at or above 60 P.S.I.
9. Rebuild air pressure (900 – 1100 RPM).
10. Charge trailer at 90 P.S.I. (push red trailer supply valve).
11. Continue building air to full pressure.

### **Stop Engine**

1. Make full brake application and note initial pressure drop; hold application for 1 minute to check for leaks (maximum 4 P.S.I. loss).
2. Disconnect emergency glad hand (trailer brakes should dynamite and tractor protection system should prevent total loss of air from the tractor).
3. Reconnect emergency glad hand.
4. Disconnect service glad hand (set aside).
5. Recharge trailer.
6. Make brake application (trailer should dynamite and tractor spring brakes should apply due to low air).
7. Reconnect service line.
8. Remove wheel blocks.

### **Start Engine**

1. Rebuild air pressure.
2. Release tractor brakes.
3. Tug test trailer brakes.
4. Release trailer brakes.
5. Tug test tractor spring brakes.
6. Release tractor spring brakes.
7. Pull ahead and stop using hand valve.
8. Pull ahead and stop using foot valve.

## 11.0 POSITIVE REINFORCEMENT AND PROGRESSIVE DISCIPLINE POLICY

### Policy Statement

Definite Oil Field Services Ltd. desires a productive, motivated and efficient workforce, as well as a safe one. To help achieve this goal, the following policy applies. Questions regarding this policy should be directed to your Safety Supervisor.

Any reference to sub-contractors would also include: Owner Operators, Drivers, Swampers, Field and Office staff.

### Purpose

The primary purpose of positive reinforcement and progressive discipline, is to promote the behaviours that support our standards and policies and, by doing so, help us attain our performance goals.

Definite Oil Field Services Ltd. will use positive reinforcement to recognize and encourage behaviours that support company standards and goals. It is also the company's policy to utilize progressive disciplinary procedures as necessary to ensure sub-contractors adherence to acceptable standards of conduct. The discipline system is a step-wise development and improvement program intended to encourage sub-contractors to accept, respect and adhere to established standards and behaviours. The purpose of these rules is not to restrict the rights of any sub-contractor, but rather, to help people work together in a positive environment, where there is respect for each individual.

Reasonable rules concerning personal conduct of sub-contractors is necessary if the workplace is to function safely and effectively. Sub-contractors will be kept informed of company rules of conduct and changes to those rules by their Safety Supervisor or District Manager.

The Safety Supervisor is responsible to ensure that sub-contractors know what is expected in their job. Further, it is company policy that sub-contractors are given opportunity to improve their job performance, unless the magnitude of a sub-contractor's misconduct necessitates immediate termination.

The purpose of this policy is to provide guidelines for the Safety Supervisor and to enable Definite Oil Field Services Ltd. to

## 11.0 continued

achieve consistency of application wherever possible. We expect to treat sub-contractors as individuals therefore, each case in which disciplinary action becomes necessary will require individual analysis. Unusual conditions and special circumstances will be taken into account and appropriately reflected in the disciplinary action.

The seriousness of the infraction will determine the appropriate discipline as outlined below. The appropriate discipline for some first time infractions may be termination. Any violation of Definite Oil Field Services Ltd. safety standards will warrant constructive feedback or a verbal warning, at a minimum.

**Positive Reinforcement Policy**

Definite Oil Field Services Ltd. will utilize Positive Reinforcement as the primary means to shape behaviours. It has been proven that regular and consistent use of positive reinforcement increases the speed at which behaviours are adopted and the duration behaviours are demonstrated. Celebrating successes, saying "good job" or "nice work doing that safely", verbal recognition in front of peers, examples of positive behaviour shared across groups noting sub-contractor names and describing actions, monthly awards for the most positive safety action in the company are all examples of how positive reinforcement can be utilized.

**Progressive Discipline Policy**

Progressive Discipline is a process that provides specific feedback to workers when standards are not met. It reinforces the standards, describes the violation, communicates and initiates consequences, and documents all actions.

Definite Oil Field Services Ltd. will use Positive Reinforcement on a regular basis with sub-contractors to help shape and encourage behaviours and reinforce our commitment to our policies, standards and performance goals. However, the company will utilize Progressive Discipline when policies and standards are violated.

## 11.0 continued

The Progressive Discipline policy provides "progressive consequences" to ensure the sub-contractor has the opportunity to correct his or her performance.

The information below represents guidelines and a starting point for Definite Oil Field Services Ltd. There is no set standard of how many verbal warnings must be given prior to a written warning or how many written warnings must precede termination.

### Disciplinary Steps

Should there be a problem regarding the sub-contractor's adherence to Definite Oil Field Services Ltd. policies, the Safety Supervisor will confirm that the sub-contractor has been trained and informed of the policy. As a starting point guideline, (not applicable in all situations) the sub-contractor will be given three opportunities to change the unacceptable behaviour:

1. The sub-contractor will be given a verbal explanation and warning of the problem behaviour, including a reiteration of Definite Oil Field Services Ltd. policy regarding the behaviour. In addition, the sub-contractor will be advised of the consequences of further infractions of the policy in question.

If no further problems occur with regard to the issue raised at the verbal warning stage, no further disciplinary action will be taken. Where formal verbal warnings are provided to sub-contractor, the District Manager will be informed. (In some instances, constructive feedback will be utilized rather than a verbal warning.

2. If the problem persists, the sub-contractor will be given a written explanation of the problem behaviour, including a reiteration of Definite Oil Field Services Ltd. applicable policy and standards. This letter will be kept in Fort St. John and added to the sub-contractor's personnel file for a minimum of 2 years, after which the sub-contractor may request its removal. Management will determine if removal is warranted (i.e. if no additional progressive discipline has been initiated during the previous two years). The sub-contractor will be advised that

## 11.0 continued

continuation of the problem will lead to suspension and, potentially, termination with cause.

As before, the sub-contractor will be given an opportunity to change the unwanted behaviour including direction from their Safety Supervisor describing how to improve and eliminate the unwanted behaviour.

If the behaviour does not recur, no further disciplinary action will be taken.

3. If verbal and written warnings fail to bring about a change in the undesired conduct, the sub-contractor will be suspended and will be informed that further occurrences of the conduct will lead to the sub-contractor's immediate termination with cause, without additional warnings.

Definite Oil Field Services Ltd. reserves the right to bypass the above disciplinary steps and base its disciplinary action on the severity, frequency or combination of infractions when circumstances warrant immediate action.

## Exceptions

For serious offenses, such as fighting, theft, insubordination, serious violation of Definite Oil Field Services Ltd. safety standards, sabotage, threats of violence, the sale or possession of drugs or abuse of alcohol on company premises, etc., termination with cause may be the first and only disciplinary step taken. Any step or steps of the disciplinary process may be skipped at the discretion of Definite Oil Field Services Ltd. after investigation and analysis of the total situation and circumstances.

## Investigative suspension

An investigative suspension is a period of time, not to exceed five working days, during which time a sub-contractor is relieved of his or her job because of alleged serious misconduct.

A sub-contractor may be placed on investigative suspension when it is necessary to make a full investigation to determine the facts of the case. For example, this may be required in a fighting, insubordination or theft incident.

## 11.0 continued

If after the investigation:

- A termination is warranted, the sub-contractor shall receive an investigative suspension.
- If misconduct is determined, but not of a sufficiently serious nature to warrant termination with cause, the sub-contractor shall receive a warning notice and may be placed on disciplinary suspension.
- If no misconduct is determined, the sub-contractor shall return to work within the prescribed period.

### **Disciplinary Suspension**

A disciplinary suspension is a period of one to five days. It may be given in addition to the investigative suspension. In a disciplinary suspension, the sub-contractor is relieved of his or her job because of serious or repeated instances of misconduct and shall forfeit pay lost as a result of the suspension.

### **Crisis suspension**

A crisis suspension is given at the discretion of the Safety Supervisor when action must be taken immediately. This type of suspension is to be used when there is a threat to personal safety or other serious and immediate concerns.

When the sub-contractor is terminated as a result of a serious offense, or as the final step in the Progressive Discipline process, the sub-contractor will be terminated for cause.

### **Documentation**

Definite Oil Field Services Ltd. Safety Supervisor and District Manager will document the disciplinary process beginning with the first verbal warning.

### **Contacts**

Definite Oil Field Services Ltd. Safety Supervisor will contact the District Manager and the Operations Manager prior to initiating Letters on File, Suspensions, or Terminations.

## 11.0 continued

**Safety Standards**

Safety Standards clearly set out expectations for the delivery of safe behaviours in the workplace and provide a context for enforcing basic safety rules. Our standards are explicit in requiring people to work safely as a condition of employment.

1. Deliberately not reporting and/or false reporting a reportable incident (ex: spill, medical aid injury).
  - 1<sup>st</sup> offense: suspension
  - 2<sup>nd</sup> offense: termination with cause
  
2. Deliberately not following an established Safety standard/practice that may cause a serious incident or injury; (ex: not wearing a seat belt, driving over the posted limit, failure to follow critical written procedures/do a risk assessment, not immediately correcting an identified hazard in the workplace).
  - 1<sup>st</sup> offense: letter on file
  - 2<sup>nd</sup> offense: suspension
  - 3<sup>rd</sup> offense: termination with cause.
  
3. Found not to be following a standard/practice through oversight, with no serious injury likely, (ex.: not wearing PPE, improperly filling out logs/permits, driving too fast for conditions, speeding).
  - 1<sup>st</sup> offense: constructive feedback or verbal warning depending on severity of Incident
  - 2<sup>nd</sup> offense: letter on file
  - 3<sup>rd</sup> offense: suspension
  - 4<sup>th</sup> offense: termination with cause.
  
4. Arriving at work unfit for duty.(ex: impaired)
  - Any offense: Removal from the site and sent for just cause drug and alcohol screening.  
(Reference drug and alcohol policy)

## 11.0 continued

While disciplinary consequences are generally progressive in nature, if repeat violations occur, the seriousness of the infraction determines the scale of the action. Consultation with the Safety Department, the District Manager and the Operations Manager may determine if it is required to move directly to suspension or termination for a sub-contractor's first infraction, as justified by the severity of the violation.

### **Disciplinary Policy**

Sub-contractors are expected to use good judgment when doing their work and to follow established safety rules. We have established a disciplinary policy to provide appropriate consequences for failure to follow safety rules. The policy is designed not so much to punish, as to bring unacceptable behaviour to the sub-contractor's attention in a way that the sub-contractor will be motivated to make corrections. The previous consequences apply to the violation of the same rule or the same unacceptable behaviour.

### **11.1 Oil Spill Policy**

When a spill occurs that is caused by driver error (e.g.: fatigue, undue care and attention) and will be claimed on Definite Oil Field Services' insurance policy, a \$5,000.00 penalty will be charged to the owner/operator of the unit. Spills under \$5,000.00 will be paid in full by the owner/operator.

The penalties collected will be applied to Definite Oil Field Services's annual liability insurance premiums.

Once a truck has a spill resulting from driver error, high level shut down alarms are required to be installed on that unit at the owner/operator's cost.



## 12.0 EMERGENCY RESPONSE

Emergency drills and employee training should be used to ensure that response under emergency conditions is effective and efficient in the case of any spills.

Employees and contractors should know for each site, the following:

- Pre-arranged emergency signals.
- Location of emergency procedure manuals and phone numbers.
- Which employees may have trouble understanding English or have any hearing impairments, which could affect communications.
- How many workers there are at the site.
- Where first aid kits, eyewash, shower, fire fighting and spill response equipment is located.

## 12.1 Emergency Response Plan

The following procedures **MUST** be followed:

- Keep people away from area.
- Reduce the degree of hazard by closing or blocking off the spill area.
- If the product is sour, make sure everyone in the area is notified and evacuation.
- **DO NOT DISCUSS THE LIABILITY WITH ANYONE!**
- Co-operate with the Fire Department, R.C.M.P., etc.
- Stay on the scene.
- The Definite Oil Field Servicess driver will notify, or arrange to have notified, dispatch at (250) 785-4761. Dispatch will notify operations manager, safety manager, and all other necessary personnel.
- The driver or caller will specify his call as an **"EMERGENCY RESPONSE"** and have the following information:
  1. Nature of the problem.
  2. Location of the problem.
  3. Person(s) injured.
  4. Amount and type of chemical.
  5. Whether a vehicle accident or spill.
  6. What corrective action you have taken.
  7. What agencies have been notified (Fire Dept, etc.).
- The driver involved will then participate in the post incident discussions
- In the event of injury or death, operations manager and safety manager will decide together who will notify next of kin, and ensure that it is handled in a responsible manner.

Definite Oil Field Services Ltd. is a member of NEBC Co-Op in Area "C", which gives us access to booms, skimmers, pumps, portable tanks, absorbents, etc. To gain access to this equipment information phone head office at 780-402-2720

## 12.2 "Emergency calls "defined

- Truck accidents.
- Incidents involving dangerous goods.
  - All accidents and incidents involving dangerous goods continue to be "emergencies" until we have:
    - Removed all personnel and equipment from further danger.
    - Taken all necessary recovery Procedures.

## 12.3 Procedures to Follow for Accidents

- Eliminate all sources of ignition.
- Take care of the injured.
- Protect the environment.
- Notify Dispatch and call the police.
- Contact environment or disaster service representative.
- Get witnesses, write witness's name and addresses or record the license number.
- Take scene photos.
- Fill in the accident report.

## 12.4 Emergency Procedure for spills, leaks or accidental release

- Stop loading/unloading right away.
- Shut off truck pumps in use.
- Eliminate all sources of ignition.
- Protect the environment by utilizing the contents of your spill kit and building dikes with earth to control the product.
- Check the wall for leaks if the spill is inside the dike. Plug any leaks.
- Notify proper authorities.
- Keep unauthorized traffic away.
- Contact dispatch.
- Stay at scene until all necessary procedures have been completed.

## 12.5 Dispatch Responsibilities

All accidents and incidents involving dangerous goods continue to be "emergencies" until Definite Oil Field Services has:

- Removed all personnel and equipment from further danger.
- Taken all necessary recovery procedures.
- Completed Initial Incident Response forms.
  - Report must be completed by dispatcher and driver within 24 hours.
  - Copy must be faxed to Fort St John immediately.
- Immediately notified the shipper.

### **Procedures:**

Dispatcher needs to complete the report and gather details.

Complete Emergency Call Report.

Ask the caller for details about the accident or incident. Get as much information as possible.

### **Find out about:**

1. Location?
2. Cause?
3. Injuries (Is an ambulance needed? Etc?).
4. Condition of equipment and product?
5. Police contacted?
6. Location of dangerous goods?
7. Wind direction and velocity?
8. Water source?

Remind driver to limit discussion.

If the call comes from a driver, remind him or her not to discuss details of the accident with anyone except the police and authorized company personnel.

Tell the driver he or she may discuss details of the products but not details of the accident with government officials (disaster services or environment officials).

## 12.6 Owner Operator and/or Driver Responsibilities

Contact dispatch immediately for all incidents, accidents or spills.

Report the following information depending on the seriousness of the emergency:

- Incident type - accident, injury, spill, equipment damage.
- Cause - Explain briefly as to details of incident.
- Injuries (Arrange to take care of injured).
- Equipment damage - Ensure further damage does not occur.
- Environment damage - Protect environment.

## 12.7 Safety Supervisor Responsibilities

Respond to emergency incident, accidents and spills depending on seriousness.

**All reports must be followed up as follows:**

- Provide assistance to dispatch depending on the seriousness of the situation.
  - Need to review and appoint an On-Site-Coordinator.
  - Inform Insurance Broker to report incident.
  - Ensure Dispatcher has contacted all personnel necessary.
  - Ensure all written reports are completed,

## 12.8 Emergency Response Coordinator

Contact the person at the top of the appropriate emergency contact list.

## 12.9 On-Site Coordinator

- Person assigned by the Safety Supervisor
- Keep a "go bag" ready at all times
- Check that you have the proper equipment including the
  - Equipment needed to properly recover and transfer the product.
  - Summer and winter coverall.
  - Hard hat and liner.
  - Face shield.
  - Splash-proof goggles.
  - Rain suit.
  - Leather and impervious gloves.
  - Explosion-proof flashlight.
  - First-aid kit.
  - Breathing apparatus.
  - Clipboard and notepad.
  - Camera.
  - All personal phone numbers and contact lists.
  - Traffic control signs.
  - Caution tape or "Do Not Enter" tape.

### Priorities for On-Site Coordinators

The **FIRST** priority is to prevent deaths and injuries.

The **SECOND** priority is to prevent unnecessary damage to property and injury to livestock, wildlife and the environment.



Po Box 1297  
 Grande Prairie, AB T8V 4Z1  
 Telephone: 780-830-2331  
 Fax: 780-830-2332

## EMERGENCY RESPONSE NUMBERS

**24 Hour Emergency Number:** (780)228-0655 or 780-296-4780  
 Office: (780)830-2331  
 Fax: (780)830-2332

Safety  
 Home: (780)539-7112  
 Cell: (780)228-0655

Bob Sharpe – Operations Manager  
 Cell: (780)296-4780

**RCMP: 911**  
**Ambulance: 911**  
**Fire Department: 911**

### **Provincial Emergency Numbers**

Dangerous Goods and Spills: 1-800-272-9600  
 Environmental Emergencies: 1-800-222-6514  
 Poison Control Centre: 1-800-332-1414

Forest Fires: (780)427-3473

Alpine Environmental – Spill Release: (780)538-0050  
 Work Place Health & Safety: (780)538-5349

### **Emergency Response Plan for Flammable Liquids and Corrosive Liquids**

Use Guide #118 and Guide #155 found in the Emergency Response Guide for Dangerous Goods – Copies are also in Dispatch Book, carried by Dispatcher on call.

### **13.0 REPORTING ACCIDENTS, INCIDENTS, INJURIES AND ALL HAZARDS**

It is the responsibility of everyone to promptly report to dispatch any accident, incidents, injuries, near misses and hazardous conditions.

All accidents, incidents and injuries must be documented on Initial Incident Response (attached).

All near misses and hazardous conditions must be documented on Hazard ID & Near Miss Pocket Report Forms (attached).

#### **13.1 Incident Report Instructions**

These instructions are meant for anyone making an incident report. These reports should be used by a site coordinator.

If you are in the field and come upon or are involved in any incident/accident it is most important to get a call into the dispatcher. Using the "Incident Report" form as a guide, pass on as much information as you can.

If you are the dispatcher and receive a call from the field, using the "Incident Report" form, gather as much information as you can about the incident, recording all that you hear and all that you do. Retain one copy for yourself and hand in other copy to the office.

In the event there is personal injury, a fluid spill, major property damage or other unforeseeable events, the dispatcher should dispatch whatever emergency crews and equipment they feel necessary, they should also call the Safety Supervisor for help. If the incident is major or catastrophic, the Operations Manager should also be contacted.



### 13.2 Incident/ Accident Investigations

The Safety Supervisor should investigate every incident. The severity of the incident or the potential severity will determine the extent of the investigation.

An effective investigation should:

1. Describe accurately what happened.
2. Determine the cause(s).
3. Decide the risks for a re-enactment.
4. Develop controls to minimize a reoccurrence.

### 13.3 Steps in Investigating

In the event of a serious accident/incident, there are many things that have to be done; care of the injured, prevention of secondary accidents, interviewing of witnesses if possible, and investigation of equipment. All these will vary with the situation and the loss potential.

Successful investigations will follow the following format:

1. Respond to the emergency promptly. Go to the scene and take charge, keep those who are not needed out of the area.
2. Collect pertinent information, what appears to have happened, who should be interviewed, if an Definite Oil Field Services driver is involved he/she should have a post-incident drug and alcohol test completed as soon as possible.
3. Analyze all significant causes.
4. Develop and take remedial actions. Site may have to be made secure, barricades may have to go up and spills may need to be contained and cleaned up.
5. Review findings and recommendations with senior management.
6. Follow through on effectiveness of actions; develop recommendations and procedures to prevent reoccurrence. Review all pertinent actions and recommendations to all employees so they can learn from the incident.

### 13.4 Hazard ID and Near Misses

Regardless of time of day, any employee, contractor or consultant involved in or witness to a serious incident or near miss must report the details to the Safety Manager immediately.

Any occurrence involving an injury to a worker(s) having the potential for property loss or damage over \$1,000 reportable to any regulatory agencies or which results in any damage or injury to a third party property or persons must be investigated by the contractor and a written report forwarded to the owner's representative as soon as practical.

The Contractor is responsible for any notifications to the WCB and Department of Labour (Occupational Health and Safety) for contractor/subcontractor injuries and reportable incidents. Medical aid or lost time injuries require that each injured employee complete one employee WCB form and the employer completes another. These forms must be completed in addition to the Definite Oil Field Services's Initial Incident Form. Any first aid injuries must be recorded on an injury record sheet and kept in the employee's file at the office.

**Incident / Accident Response**

Report Filed By: \_\_\_\_\_

*To be completed by the person receiving a call regarding any incident*

**1. Incident Type**

ACCIDENT  INJURY  PRODUCT  EQUIPMENT DAMAGE  OTHER

Date of Incident: \_\_\_\_\_  
DD / MM / YY      Time - am/pm

Reported by: \_\_\_\_\_

**2. Incident Description**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Customer: \_\_\_\_\_ Phone #: \_\_\_\_\_ Bill of Lading: \_\_\_\_\_

Product Type: \_\_\_\_\_

**3. Assistance Required at Scene:**      Yes       No

Responder: \_\_\_\_\_

Direction to Scene: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

**4. Phone Details**

Driver's Name: \_\_\_\_\_

Not Injured       Slightly Injured       Hospitalized       Fatality

Unit # \_\_\_\_\_

No Damage  Damaged  Immobile  \_\_\_\_\_

Product \_\_\_\_\_

Secure  Escaping  Est. Qty Lost \_\_\_\_\_

3rd Party Person(s) or Property: \_\_\_\_\_

Not Injured  Slightly Injured  Hospitalized  Fatality

No Damage  Damaged  \_\_\_\_\_

**5. Immediate Contact List**

**Police** Name: \_\_\_\_\_ Time: \_\_\_\_\_  On Scene  Been Called

Operator # \_\_\_\_\_ Case File # \_\_\_\_\_

**Corporate Manager**  
Name: \_\_\_\_\_ Time: \_\_\_\_\_  On Scene  Been Called

**District Manager**  
Name: \_\_\_\_\_ Time: \_\_\_\_\_  On Scene  Been Called

**Safety Manager**  
Name: \_\_\_\_\_ Time: \_\_\_\_\_  On Scene  Been Called

**Shipper's Name:** \_\_\_\_\_

Person Contacted: \_\_\_\_\_ Time: \_\_\_\_\_  On Scene  Been Called

**Fire Department**  
Name: \_\_\_\_\_ Time: \_\_\_\_\_  On Scene  Been Called

**Ambulance**  
Name: \_\_\_\_\_ Time: \_\_\_\_\_  On Scene  Been Called

**AUEB:**  
**Candice Mack:** 780-538-5138 Time: \_\_\_\_\_  On Scene  Been Called

**John Oman res:** 780-532-9031 Time: \_\_\_\_\_  On Scene  Been Called

**Resource #:** \_\_\_\_\_  
**Dangerous Goods** 1-800-272-9600

Contact Person: \_\_\_\_\_ Time: \_\_\_\_\_  On Scene  Been Called

**6. Additional People Contacted:**

Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Time: \_\_\_\_\_  On Scene  Been Called

Company: \_\_\_\_\_ Requested By: \_\_\_\_\_

Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Time: \_\_\_\_\_  On Scene  Been Called

Company: \_\_\_\_\_ Requested By: \_\_\_\_\_

Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Time: \_\_\_\_\_  On Scene  Been Called

Company: \_\_\_\_\_ Requested By: \_\_\_\_\_

**OTHER DETAILS:**

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**Copies Sent To:**

- Grande Prairie's Office
- Fort St. John's Office

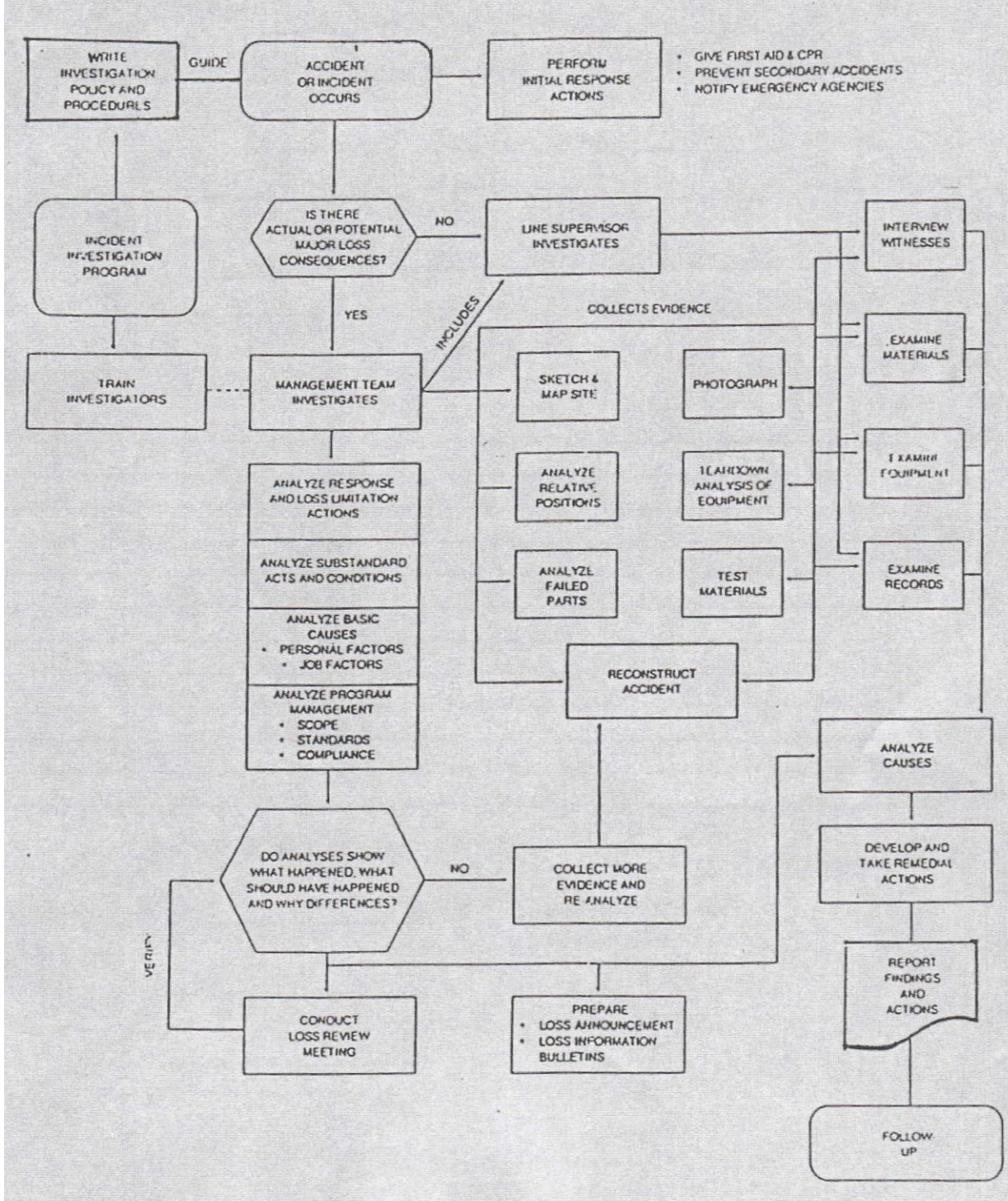
\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Title*

\_\_\_\_\_  
*Date*



# Incident Investigation Flow Chart



## 14.0 RESPONSE PROCEDURE - BY HAZARD CLASS

### 14.1 Fire Classes

**Class A Fire:** Letter "A" in Green Triangle identifies Class A Fire Ordinary combustibile material such as paper, wood or cloth extinguishing equipment for this fire.

**Class B Fire:** Vapour combustion over surface of flammable/combustibile liquid such as grease, oil or gasoline. Letter "B" or Red Square identifies extinguishing equipment for this type of fire.

**Class C Fire:** Electrical fires. Circuit may be live, so non-conducting extinguishing agents must be used. Letter "C" in Blue Circle identifies extinguishing equipment for this type of fire.

**Class D Fire:** Combustibile metals or powders like magnesium, titanium or sodium. Letter "D" in Yellow star identifies extinguishing equipment for this type of fire.

In accordance with the 1988 Montreal Protocol controlling use of Chlorofluorocarbons, Definite Oil Field Services discourages use of Halon fire extinguishers, unless absolutely required for a particular electronics application.

## 14.2 Fire Protection and Protective Equipment

**All Flammable or combustible fluids must be stored in approved fire resistant containers. These containers must be grounded or bonded when pouring flammable fluids. Plastic pails shall NOT be used for flammable fluids.**

When transferring fluids, trucks must be bonded or grounded. Diesel trucks must have positive air shut off's, to prevent the engine from over speeding in the event there is flammable vapours present.

All truckers shall have and maintain adequate fire extinguishers. 30# ABC charged with purple K.

Be aware that all Hydrocarbons (oils and gasses produced in the "Oil Patch") and some other oil field products such as H<sup>2</sup>S and methanol will burn/explode when mixed with air/oxygen. The smallest concentration of gas in a gas/air mixture that will burn is known as LEL (Lower Explosive Limit). The highest concentration is known as DEL (Upper Explosive Limit).

Gas meters can read these limits. If it is determined, with a gas meter that the surrounding air is above the LEL be extremely careful as a spark could/will cause an explosion.



### 14.3 Transportation of Dangerous Goods

- Class 1 Explosives:**  
**Explosives are subdivided into five divisions**
- Division 1 Mass Explosion Hazard
  - Division 2 Major Projection Hazard
  - Division 3 Mass Fire Hazard
  - Division 4 Minor Projection Hazard
  - Division 5 Insensitive Mass Explosion Hazard
- Class 2 Gases**  
**Gases are subdivided into four divisions**
- Division 1 Flammable Gases
  - Division 2 Non-Flammable/Non-Poisonous Gases
  - Division 3 Poison (toxic) Gases
- Class 3 Flammable Liquids**
- Flammable Liquids are liquids, which have a flash point not greater than 61 C.
- Class 4 Flammable Solids**  
**Flammable Solids are subdivided into three divisions.**
- Division 1 Substances easily ignited
  - Division 2 Substances Liable to Spontaneous Combustion
  - Division 3 Substances that on Contact with Water Emit Flammable Gases
- Class 5 Oxidizing Substance and Organic Peroxides**  
**Class 5 is subdivided into two divisions**
- Division 2 Organic Peroxides

14.3 continued

**Class 6 Poisonous (toxic) and Infectious Substances**

Division 1 Poisonous Substances

Division 2 Infectious Substances

**Class 7 Radioactive Materials**

Materials emit radiation or sub-atomic particles

**Class 8 Corrosive Materials**Attack or corrode human skin tissue, steel,  
and/or aluminum**Class 9 Miscellaneous Products and Substances****Class 9 is subdivided into three divisions**

Division 1 Miscellaneous Dangerous G

Division 2 Environmentally hazardous substances

Division 3 Dangerous Wastes

**PACKING GROUP**

Packing Group I Very Dangerous

Packing Group II Dangerous

Packing Group III Moderately Dangerous

## 15.0 FIELD COMMUNICATIONS

<b>Function</b>	To outline the communication requirements for field personnel and those needed to improve operations and reporting.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Definition</b>	Communications is defined as an "exchange of information". Clear, concise communications either in the spoken or written form can go a long way towards making a work place safer for all workers.
<b>Radios</b>	If used, radio communications must be made in a manner determined by management and in a format acceptable under federal / provincial licensing agreements. Radio communication may be required for personnel required to work alone.
<b>Land and Mobile Telephones</b>	Land and mobile telephones are an essential part of all communication systems. In an emergency be clear and concise in all questions and answers.
<b>Satellite Tracking</b>	<p>Definite Oil Field Services Ltd. utilizes the GEO Trac system. The system allows dispatch to monitor truck movement, truck speed and allow e-mail capability.</p> <p>The utilization of this system allows the fleet to be in compliance with all work alone issues.</p> <p>All trucks coming into the fleet must be equipped with the tracking system.</p>

## 16.0 STANDARD OPERATING PROCEDURES

### 16.1 Tank Truck – General Loading & Unloading

#### Truck Loading & Unloading Procedures At Mile 54 Tank Farm

##### *Loading Procedure*

1. Talk to dispatch. Get name, volume of Product to load & Tank #, ensure you have MSDS Sheets & Placards.
2. Put on all P.P.E. (coveralls, and H<sup>2</sup>S monitor etc.) Prior to entering any lease.
3. Set Maxi Brake and place chocks to ensure truck is secured when loading.
4. Attach ground cable.
5. Couple up hose to load line.
6. Open all necessary valves and engage PTO to start loading.
7. Watch load line and remain close to truck while loading product. Stay away from venting area.
8. Once loaded, close all necessary valves. Unhook & suck out line.
9. Shut off PTO on truck.
10. Remove ground cable.
11. Leave Ticket in Ticket Box.
12. Call Dispatch & inform him you're loaded & leaving Tank Farm.

##### *Unloading Procedure*

1. Call Dispatch; tell him your Volume & Product you have to unload.
2. Get a Tank Number from him. Check tank to be sure your load will fit.
3. Put on all P.P.E. (coveralls, and H<sup>2</sup>S monitor etc.)
4. Set maxis brakes & place chocks to ensure truck is secured when unloading.
5. Attach ground cable.
6. Couple up hose to load line.
7. Open all necessary valves and engage PTO. Open vent lines only after truck goes on vacuum.
8. Watch load line and remain close to truck while unloading.
9. Once unloaded shut off PTO and close all necessary valves.
10. Place the PTO on suck (to ensure minimum spillage when uncoupling hose).
11. Disconnect ground cable.
12. Leave ticket in ticket box.
13. Call Dispatch and inform him you are unloaded and leaving Tank Farm.

## 16.2 Tank Truck – Loading from a Pressure Vessel or Tank

### Standard Work Procedure

#### Loading from a pressurized tank or vessel

- Talk to dispatch – Get name, volume of product to load and tank # (if known); ensure you have MSDS sheets and placards.
- Find out how much pressure is in vessel / tank
- Put on all PPE (Coveralls and H2S monitor, etc..) Prior to entering any lease (at sour locations, don SCBA)
- Park tank truck 7 meters from P-Tank
- Set maxi brake and place chocks to ensure truck is secured when loaded.
- Attach ground cable
- Couple up hose to load line
- Couple vent hose to Scrubber Unit
- Open all necessary valves (very slowly) and engage PTO to start loading.
- Watch load line on truck and pressure gauge on vessel, remaining close to truck while loading product. Note: stay away from venting area.
- Once loaded, close all necessary valves. Unhook and suck out line. (remove SCBA)
- Shut off PTO on truck.
- Remove ground cable & chocks.
- Remove PPE if necessary and call dispatch to inform him your loaded.

## 16.2 continued

6. Ensure valves on tanks load line not leaking.
7. Ensure fire extinguisher and SCBA are readily available and in operable condition.
8. Ensure vent pipe in tank not plugged or obstructed.
9. Review all applicable customer standards.

**Step by Step Procedure:****A. Position Truck & Connect Lines**

1. **Engage** park brake
2. **Hook up** ground cable to appropriate metal on truck.
3. **Place** wheel chocks
4. **Uncover** drip barrel
5. **Unlock** lock on load line
6. **Hook up** to load line
7. **Open** appropriate valve
8. **Check** tank indicators to ensure working properly.

**B. Load Truck**

1. **Load** truck. **DO NOT** leave truck while loading.

**C. Disconnect Lines**

1. When transfer of fluids completed, **close appropriate valves.**
2. **Evacuate** above ground riser, if possible.
3. **Disconnect** from load line.
4. **Suck out** drip barrel.
5. **Recover** drip barrel and wipe any spills.
6. **Secure** hose on truck.
7. **Lock** load line.
8. **Pick up** wheel chocks.
9. **Disconnect** ground cable and put back in proper location.
10. **Leave** ticket at pre-determined area.

## 16.3 Tank Truck – Transferring Fluids from an Above Ground Tank

### PROCEDURE

#### *Transferring Fluid from an Aboveground Tank*

##### Hazards:

- Static Electricity
- Toxic fumes egress/confined space
- Truck movement
- Explosive mixtures / fire
- Environmental (Spills)

##### Personal Protective Equipment (PPE):

- H2S Monitor
- Hard Hat
- Rubber Gloves
- Steel Toed Boots
- Fire Retardant Clothing
- Breathing Equipment
- Fire Extinguishers

##### Pre-Job Activities:

1. When receiving a call from the customer, ensure that we are aware of the time a truck is to arrive at their site.
2. If at all possible, have an operator available to be present when the truck arrives. Unseen troubles, such as frozen valve or load lines, can then be avoided. This will save the truckers time and ensure they get loaded.
3. Wind direction
4. Ensure truck vent is vented to a safe location, either through a scrubber or to a flare stack.
5. No leaks on truck.

## 16.4 Tank Truck – Transferring Fluid / Ferrying Out

TBA



## 16.5 Loading of Acids or Caustics

### Acid Loading Procedure

1. Arrive at predetermined time
2. Find bulk plant personal. If 15 minutes past load time phone office to locate.
3. Hold safety meeting. Discuss load with driver, how much is to be loaded and where on truck(s) it is going.
4. Evaluate driver, equipment condition, tank inspection dates and TDG card.
5. Put on appropriate safety gear (driver and bulk plant hand), rubber suit, gloves, goggles, boots and hardhat.
6. Spot truck at facility, put down chock blocks and attach ground cable.
7. Load water (gauge tank if needed).
8. Load chemicals (gauge tank if needed).
9. Load acid (gauge tank if needed).
10. Fill out TDG. Give driver MSDS sheets if needed.
11. Discuss which placards to use, Emergency response number and contact if needed.
12. Discuss directions to location and time to be there. If going to location with crew let driver know which truck to follow, and let driver know duration of job.


## 16.6 Tank Truck - Unloading of Acids or Caustics

### Standard Work Procedure

#### Loading / Unloading Acid or Corrosive Substance

- \_ Fill out JSA form
- \_ Ensure you are wearing all proper / required PPE (Face Shield & Chemical Goggles) for the job to be performed and chemical to be handled. Reviewing to the MSDS
- \_ Ensure proper placards are in place before loading as per MSDS
- \_ Place chock blocks under wheels
- \_ Connect ground cable
- \_ Rig hoses to load point. Making sure appropriate hose and fittings are used (brass or stainless steel cam locks) and acid resistant suction hose
- \_ Ensure PSV is set and tested
- \_ Open valves on truck to appropriate compartment
- \_ Engage pump – open valve on load line
- \_ Watch for leaks while loading / unloading
- \_ When loading / unloading is complete close valve on load line and remove cam locks while pump is still running
- \_ Use a drip container to catch any spilled chemical
- \_ Flush hoses with water
- \_ Be sure hoses are sucked clean
- \_ Replace plugs or caps when hoses are empty
- \_ Close valve on tank truck
- \_ Shut off pump
- \_ Put hoses back on truck and secure
- \_ Remove ground cable and wheel chocks
- \_ Write up invoice, then notify dispatch that you are finished

**16.7 Vacuum Truck – General Loading & Unloading**

	<p><b>SAFE OPERATING PROCEDURE</b></p>	<p><b>No. 002 Grande Prairie Division</b></p>
<p><b>TITLE: VACUUM TRUCK LOADING</b></p>		<p><b>Rev: 1 Date: October 22, 2008</b></p>

**1.0 Introduction**

**2.0 Application**

The following procedure applies to all Definite Oil Field Services LTD Truck Operators and swampers.

**3.0 Identification**

All operators / swampers must be trained and competent with all the aspects of this procedure.

Failure to follow this procedure could potentially result in elevating the risks of:

- Fire and / or Explosion
- H2S Release.
- Sparks from an energy source, and / or static charge.
- Unexpected pressure release.
- Product to leak and / of spill.
- Personal injury,
- Injury to others.

**4.0 Personal Protective Equipment**

All operators / swampers will be equipped with the following; Fire Retardant Coveralls, Hardhat, Safety Eyewear, Steel-toe Boots, Gloves, 4-head gas detection monitor and S.C.B.A. or S.A-B.A.

All operators / swampers will be trained in the following: H<sub>2</sub>S Alive, First Aid, T.D.G., W.H.M.I.S., PST and Confined Space.

**5.0 Procedure(s)**

- 1) Drive on to location, park off to the side, making sure not to block in any vehicle or the lease entrance. Once parked, send text message on GEOTrac or phone dispatch, telling him know you are safety on location, and advise of any precautions you may need to take while on site.
- 2) Make sure to put on **ALL** PPE. This Includes H2S Monitor (it's not worth wearing anything if it's not all on and in good working condition.)
- 3) Find company representative, have a pre-job safety meeting (in this meeting, you should find out what the job is that you are doing and if a work permit will be required. Discuss muster area; H3S concentration, wind direction, truck positioning and where the load will be going for disposal.

Prepared By: \_\_\_\_\_


Recommended By: \_\_\_\_\_

Revision Date: \_\_\_\_\_

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_

16.7 continued


	<b>No. 002</b> <b>Grande Prairie</b> <b>Division</b>
	<b>SAFE OPERATING PROCEDURE</b>
<b>TITLE: VACUUM TRUCK LOADING</b>	<b>Rev: 1 Date: October 22, 2008</b>

- 4) After the safety meeting, discuss with your swamper how you will be moving into position. If backing into position, make sure to sound the horn before moving and have your swamper guide you as you back up. Make sure not to park too close to tanks or risers (an extra hose is not a bad idea). Ensure there is a safe route out to safety,
- 5) Get out of the truck, block wheels and set out fire extinguisher in case it might be needed for evacuation purposes.
- 6) Connect ground cables and extension vent line, remembering wind direction discussed in safe meeting.
- 7) Make sure 400bbl tank valve is closed, remove tank valve plug, taking care not to spill any fluid, screw in hose fitting - make sure threads are clean and that it's not cross threaded, tighten fitting to ensure there will be no leaks.
- 8) Hook up hose from truck to tank, inspecting hoses first to make sure there are no cracks (green hoses don't do well under pressure), make sure cam locks have a good seal (heaters may need to be used).
- 9) Before any loading starts, make sure 400bbl tank vent line is open or not hooked to an H2S scrubber (a vacuum truck will suck the fluid out of the scrubber, and thief hatches alone do not let in enough air)
- 10) Make sure vacuum/pressure valve is on vacuum and valve on the top of vacuum tank is open.
- 11) Start vacuum pump, making sure vent line fills up and has no leaks. Before opening any valves, make sure vacuum gauges are showing a negative pressure (-28 Hg).
- 12) Open valve on vacuum truck tank. Make sure valve is not frozen and opens all the way. Check for leaks (you should be able to hear them)
- 13) Slowly open tank valve, checking for leaks.
- 14) Once truck starts to load watch closely, it will not take to long to fill (Vacuum trucks load a lot faster than a tank truck, up to 2m<sup>3</sup> per minute).
- 15) Once 400bbl tank is empty, close valve on vacuum truck tank first, then close valve on 400bbl tank, unhook hose from 400bbl tank, making sure to hold the hose up so no fluid drips out, prop up the end of the hose on the side of the tank or hold it, walk back to the truck briefly open the valve on the truck to ensure the hose is fully empty.
- 16) Unhook hose from the truck, put on cap, close valve on top of vacuum truck tank, and turn off vacuum pump.
- 17) Load hoses, vent line and wheel blocks.

Prepared By: \_\_\_\_\_  
 Recommended By: \_\_\_\_\_  
 Revision Date: \_\_\_\_\_

Approved By: \_\_\_\_\_  
 Date: \_\_\_\_\_

16.7 continued

	<b>SAFE OPERATING PROCEDURE</b>	<b>No. 002 Grande Prairie Division</b>
	<b>TITLE: VACUUM TRUCK LOADING</b>	<b>Rev: 1 Date: October 22, 2008</b>

- 18) Remove fitting from tank, put plug back in.
- 19) Make sure everything was left as you found it at the 400bbl tank.
- 20) Take care a minute to walk around the lease where you were working to make sure everything is as you left it (no mess). Last, walk around the truck to ensure everything is loaded and tied down properly.
- 21) Get in truck, noting how much fluid you loaded, call disposal to book in yourself and your fluid.
- 22) Make out ticket - make sure the company's representative's name and phone number are on the ticket along with the LSD, and any other notes about the job that are needed (they might come in handy for the next person going there) Get the ticket signed by the company representative, let him know you are booked in for disposal.
- 23) Travel safely going home.

**Full Understanding of the S.O.P.**

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**Trained on the job, and fully understand task.**

Print Name \_\_\_\_\_ Sign Name \_\_\_\_\_ Date \_\_\_\_\_

Prepared By: \_\_\_\_\_  
 Recommended By: \_\_\_\_\_  
 Revision Date: \_\_\_\_\_

Approved By: \_\_\_\_\_  
 Date: \_\_\_\_\_

16.7 continued

	<b>SAFE OPERATING PROCEDURE</b>	<b>No. 002 Grande Prairie Division</b>
	<b>TITLE: VACUUM TRUCK LOADING</b>	<b>Rev: 1 Date: October 22, 2008</b>

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**S.O.P. Reviewed**

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Prepared By: \_\_\_\_\_  
 Recommended By: \_\_\_\_\_  
 Revision Date: \_\_\_\_\_

Approved By: \_\_\_\_\_  
 Date: \_\_\_\_\_

**16.8 Vacuum Truck – Opening and/or Flushing Out**

**TBA**

## 16.9 Hot Oiler Procedure

### STANDARD WORK PROCEDURE HOT OIL & PRESSURE UNIT

#### Before operating unit:

1. Hold a pre-job safety meeting to discuss the following:
  - safety equipment location.
  - data on facility and job (e.g. Volume of fluid, max. pressures and temperatures, etc.)
  - emergency procedures
2. Personal protective equipment must be worn at all times while at work site. CSA approved steel-toed boots, safety glasses, hard hat and fireproof coveralls are all required.
3. Personal H2S monitors are in each unit and must be worn by operator of the unit at all times while on location.
4. If on a location where there is a high concentration of sour gas, the breathing apparatus must be set out where it is easily accessible.
5. No smoking on leases as posted. Smoking should be confined to designated areas.
6. The units are equipped with a number of lights; the operator must ensure that all are in proper working condition so as to allow for proper lighting at night jobs.

#### Operating procedures:

1. Station units a minimum of 50m from well head and other equipment, such as service rigs, wireline, etc.
2. Position units so the prevailing wind will be crosswind, or if this is not possible, place unit up wind from well. Be sure fuel vapors cannot get into the air intake on the truck or the blower intake. Wind indicator flags are on all units for this purpose.
3. A ground cable is mounted on each unit and shall be connected before any loading/unloading or pumping takes place.
4. Wheel chocks are to be placed in front and back of wheel before any loading/unloading or pumping.
5. Attach safety cable to unit and facility to prevent whipping.
6. Hose should be attached to unit vent line to ensure venting down wind or crosswind.
7. Apply brakes to unit when it is operating.
8. Pressure test steel lines from unit to wellhead to 125% of pressures anticipated during job. Make sure everyone on location is clear of the line while testing.
9. Use high-pressure steel pipe and connections from the unit to the wellhead. (over 3000 lbs.)



**16.9 continued**


10. Use a high-pressure check valve in the steel line between hot oil unit or pressure unit and wellhead.
11. Circulate cold oil through burner coils before lighting the burner. Pump cold fluid down flowline or well before pumping hot fluid. This will ensure that there is proper circulation before lighting burner. (break circulation)
12. Start burner; set Murphy switches to specifications as discussed in orientation meeting.
13. Do not exceed pressure rating of connections on the wellhead while pumping. Make sure all swivel joints and all connections are tight and leak proof. If leaks develop, bleed off pressure to unit and make repairs.
14. Adjust packing on pumps to eliminate excessive oil leaks.
15. Do not commence hot oiling or pumping operations until you are satisfied that safe conditions exist. Check for leaks around and under the unit and along the line to the well. This check should be made after the first few minutes of pumping and frequently thereafter.
16. If leaks in coils should occur there could be a possible fire in the burner, extinguish fire with CO2 bottle. Shut off burner and keep circulating. If fire cannot be extinguished with CO2 bottle, alert everyone on location of a possible explosion and follow emergency procedures.

**Shut down procedures:**

1. Shut off the burner and circulate fluids back through the burner 3 to 5 barrels before finishing the pumping. This will extinguish the fire and cool the coils sufficiently.
2. Close valves on exit and suction and suck back fluids.
3. Disconnect and replace the line pipe onto the truck.
4. Clean up any oil drainage from the unit and or lines.
5. Pick up fire extinguisher, signs and chock blocks and replace them on the truck in their designated locations.
6. Unhook safety cable.
7. Burner should be flushed with fresh water after pumping corrosives to prevent excessive wear.

**16.10 Pressure Truck Procedures**

**16.10.1 General Pressure Truck**

	<p style="text-align: center;"><b>SAFE OPERATING PROCEDURE</b></p>	<p>No. 001 Grande Prairie Division</p>
		<p><b>TITLE: PRESSURE TRUCK</b> 1.0 Introduction</p>

The operation of a pressure truck is a specialized job requiring a trained operator and equipment in top condition, due to the activity that it is capable of performing.

**2.0 Application**

The following procedure applies to all employees, working for Definite Oil Field Services Ltd. who are trained and operate a pressure truck.

**3.0 Identification**

All personnel must be trained and competent with all the aspects of the spinning samples procedures.

Failure to follow this procedure could potentially result in elevating the risks of:

- Fire and / or Explosion
- H2S Release.
- Sparks from an energy source, and / or static charge.
- Unexpected pressure release.
- Product to leak and /or spill.
- Personal injury.
- Injury to others.

**4.0 Personal Protective Equipment**

All personnel will be equipped with the following; Fire Retardant Coveralls, Hardhat, Safety Eyewear, Steel Toe Boots, and Gloves, 3-way personal monitors and two way communications, all of which are mandatory during operation.


Additional P.P.E, would include, full face shield, half mask respirator, full mask respirator, S.C.B.A., S.A.B.A., wet suit, rubber apron, rubber gloves. This additional P.P.E. is required dependant on the task being performed.

All personnel must be trained and competent with all the operating procedures pertaining to their equipment or task to be performed. All personnel will be trained in the following; First Aid, T.D.G., W.H.I.M.S., Basic Firefighting, G.O.D.I. and Confined Space (if applicable)

Prepared By: \_\_\_\_\_  
 Recommended By: \_\_\_\_\_  
 Revision Date: \_\_\_\_\_

Approved By: \_\_\_\_\_  
 Date: \_\_\_\_\_

16.10.1 continued

	<b>SAFE OPERATING PROCEDURE</b>	<b>No. 001 Grande Prairie Division</b>
	<b>TITLE: PRESSURE TRUCK</b>	<b>Rev: 1 Date: March 2008</b>


**5.0 Procedure(s)**

- 1) Pre-Job safety meeting  
Topics Discussed
  - a) Fluid amounts
  - b) Fluid rates - minimum rates / maximum rates
  - c) Additional P.P.E. required, over and above standard P.P.E. (example: chemical goggles, face shield, nitrile gloves etc.)
  - d) How rig in will take place.
  - e) Potential dangers identified and made aware to all.
- 2) Drive onto location assessing site.
- 3) Park unit in a safe area and apply brakes.
- 4) Wearing all P.P.E., walk location doing a site assessment, looking for slips, trips, fall potentials, uneven ground, pipes, structures, anchors, electrical lines (ground level & over head).
- 5) Note wind direction.
- 6) Plan site set up in co-ordination with other services, engineer, consultant or site representative,
- 7) Locate pressure truck in the appropriate location, being 25 metres from the well head and with the wind being up wind or cross wind.
- 8) With unit in the appropriate location, apply brakes and chock wheels.
- 9) Set up hose and bonding cable in the designated location and attach grounding/bond cable.
- 10) Attach hose or line pipe to the designated tie in point on the well head. Ensure the in line check valve is in good working order, and is in place.
- 11) 'Note' 1" piping or larger will require a safety cable. This is to aid in supporting the weight of the piping during the pump process.
- 12) Ensure pump bypass is open.
- 13) Ensure P.S.V. is set to the lowest point
- 14) Engage pump.
- 15) Slowly close the bypass valve,
- 16) Adjust P.S.V. for the maximum pressure for the job.
- 17) Stop the pump to perform a line test.
- 18) Check line or piping and all connections for leaks or weeping.
  - a) If any leaks or weeping is detected, bleed back pressure and replace line, tighten fitting or replace fitting if required.
  - b) If no leaks are located proceed to next step.
- 19) Ensure all personnel in the area are aware that pumping is to commence.
- 20) Commence pumping.
- 21) Assess all pressures, monitor all equipment and line/piping, during the pump.
- 22) Upon completion of the pump, shut down the pump,
- 23) Close the valve(s) on the well head.
- 24) Bleed back pressure from the line. Suck back on vacuum, until all pressure is relieved.
- 25) Break all line connections and secure all lines / pipe and equipment back onto unit.
- 26) Perform a final walk around to ensure all areas are good. No tools or equipment is left or forgot.
- 27) Exit location.

Prepared By: \_\_\_\_\_  
 Recommended By: \_\_\_\_\_  
 Revision Date: \_\_\_\_\_

Approved By: \_\_\_\_\_  
 Date: \_\_\_\_\_

16.10.1 continued

	<p><b>SAFE OPERATING PROCEDURE</b></p>	<p>No. 001 Grande Prairie Division</p>
<p><b>TITLE: PRESSURE TRUCK</b></p>		<p>Rev: 1 Date: October 2008</p>
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Prepared By: \_\_\_\_\_  
 Recommended By: \_\_\_\_\_  
 Revision Date: \_\_\_\_\_

Approved By: \_\_\_\_\_  
 Date: \_\_\_\_\_

16.10.1 continued

	<b>SAFE OPERATING PROCEDURE</b>	<b>No. 001 Grande Prairie Division</b>
	<b>TITLE: PRESSURE TRUCK</b>	<b>Rev: 1 Date: October 2008</b>

**S.O.P. Reviewed**

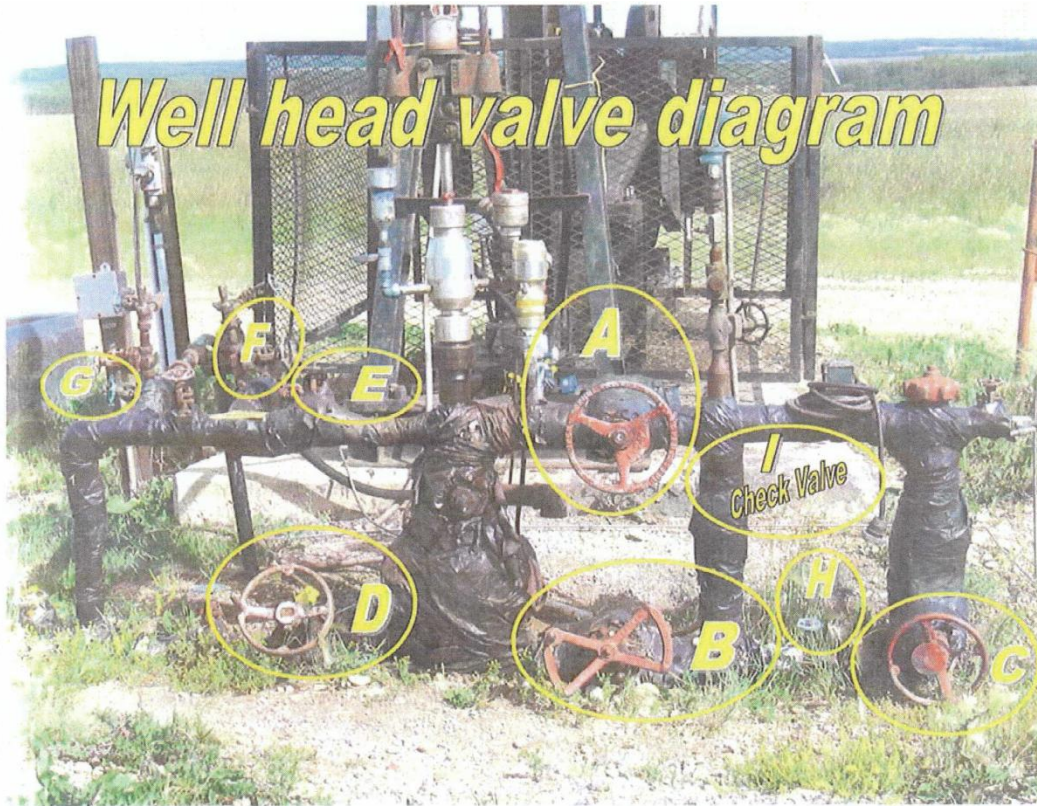
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 Recommended By: \_\_\_\_\_  
 Revision Date: \_\_\_\_\_

Approved By: \_\_\_\_\_  
 Date: \_\_\_\_\_



## 16.10.2 Imperial Oil Pressure Truck Procedures



**Names of Valves**  
**with annigas compressor**  
**or all well heads**

- A) Tubing valve
- B) On side casing valve
- C) Flow line valve
- D) Off side casing valve
- E) Off side tubing valve
- F) Annigas compressor discharge isolation valve
- G) Annigas compressor inlet isolation valve
- H) On side 1/2" tie-in point
- I) Barrett or Durabla (Check Valve)



## Imperial Oil Procedures

### Going into an On-Side Casing with and Annigas Compressor (reference well head valve diagram)

- 1) Shut off tail switch
- 2) Rig into on side tie-in point "H"
- 3) Close valves "A", "C" & "D"
- 4) Pump fluid
- 5) Rig out of tie-in point "H"
- 6) Open valves "C", "A" & "D" – Open valve "D" last – just before tail switch
- 7) Turn on tall switch to start pumpjack.

\*NOTE: Starting the pumpjack should be the last thing done, as it is crucial to keep fluid out of casing gas compressor.

### Going into On-Site Casing (reference well head valve diagram)

- 1) Turn off tail switch
- 2) Close flow line valve "C"
- 3) Close tubing valve "A"
- 4) Tie into valve "H"
- 5) Pump fluid away
- 6) Close valve "H" & Rig out
- 7) Open valve "C", then valve "A"
- 8) Turn on tail switch to start pumpjack

\*NOTE: Can be done when unable to rig into off side for whatever reason.

### Going into Off-Site Casing (reference well head valve diagram)

- 1) Rig into off side "D"
- 2) Close on side casing valve "B"
- 3) Open valve "D"
- 4) Pump fluid
- 5) Close valve "D"
- 6) Open valve "B"
- 7) Rig out

## 1.0 OFFICE SAFETY

<b>Function</b>	To outline the requirements for ensuring the safety of office employees.
<b>Application</b>	All Definite Oil Field Services Ltd. employees.
<b>Procedures</b>	Injuries and accidents in the office are just as painful and costly as those occurring in operations are. The office should be no less safe than any other area and an equal amount of care must be taken to ensure the welfare of the workers. Some simple rules will eliminate the majority of office hazards.

### 1.1 Filing and Storage Cabinets

Prevent cabinets from tipping over by bolting cabinets together side by side where possible, avoid overloading the top shelves, and open drawers one at a time so as not to unbalance the cabinet. Close all the drawers when they are not in use and use the handles to open and close the drawers to prevent pinched fingers. Do not struggle with firmly stuck drawers as the drawer may suddenly pull loose and fall on your foot, or you could pull your back.

### 1.2 Paper Cutters and Shredders

After using the paper cutter make sure that the blade is closed. Be very careful when using the shredder to avoid catching jewellery, ties, clothing or long hair in the blades.

### 1.3 Waste Paper Baskets

Never use a waste paper basket as an ashtray, as this could easily start a fire. If the basket is being used to dispose of glass, sharp edged cans or other similar objects, first place these objects in a bag or wrap them in newspaper and mark the contents clearly. Never leave these items loose in the container.



#### 1.4 Electrical Cords

To avoid a fire hazard ensure that all electrical cords are in good condition and not overloaded. Any cords that are worn or frayed are to be repaired or replaced immediately. Do not run electrical or telephone cords across aisles or walkways. Never remove an electrical cord from the wall socket by pulling on the cord; always pull the plug instead.

#### 1.5 Floors and Aisles

Slipping and tripping hazards are probably the most common hazards in an office setting. To avoid these:

- Keep floors and aisles free of all debris and storage boxes.
- Use the aisles and walkways provided to move around the office, do not take short cuts.
- Do not obstruct your forward view when walking by carrying objects that are very large.

#### 1.6 Stairs

- Never leave or store material on the stairs.
- Pick up debris and wipe up spills on the stairs immediately.
- Report unsafe conditions.
- Hold onto the handrail when using the stairs.

#### 1.7 Ladders

- If the ladder is a step ladder ensure that it is fully open and is on level ground before starting to climb.
- Never stand on the top two rungs of the ladder.
- Never reach to the side of a ladder, instead climb down and move the ladder.
- If at all possible, have a second person assist in stabilizing the ladder.

#### 1.8 Flammable Materials

Never use flammable liquids such as gasoline, naphtha or varsol for cleaning in the office. Keep any flammable material in approved containers that are properly labelled. Do not leave the containers uncapped.

#### 1.9 Fans

Use only fans with a wire mesh guard that completely covers the blades.

### **1.10 Smoking**

Do not smoke while handling computer tapes or other flammable material. Smoking is only allowed in designated smoking areas.

### **1.11 Fire Precautions**

Ensure that all employees know the location of the fire fighting equipment in the office, and also know which type of extinguisher to use on which class of fire.

Ensure that all extinguishers are properly maintained.

Ensure that all personnel are familiar with escape routes to be used in an emergency, and know how to contact the fire department.

Emergency contact names and numbers should be posted near each phone.

### **1.12 Workplace Violence**

Acts or threats of physical violence, including intimidation, harassment, and/or coercion, which involve or affect Definite Oil Field Services Ltd. or which occur on Definite Oil Field Services Ltd. property will not be tolerated.

Acts or threats of violence include conduct which is sufficiently severe, offensive, or intimidating to alter the employment conditions at Definite Oil Field Services Ltd., or to create a hostile, abusive, or intimidating work environment for one or several employees.

Definite Oil Field Services Ltd. prohibition against threats and acts of violence applies to all persons involved in Definite Oil Field Services Ltd.'s operation, including but not limited to personnel, contract, and temporary workers and anyone else on Definite Oil Field Services Ltd. property. Violations of this policy by any individual on Definite Oil Field Services Ltd. property will lead to disciplinary action, up to and including termination and/or legal action as appropriate.

Every employee is encouraged to report incidents of threats or acts of physical violence of which he/she is aware. The report should be made to your supervisor or the Safety Manager.

If an employee is a victim of workplace violence incident they are encouraged to consult a health professional.

Continued on pg.330

## 2.0 HOUSEKEEPING REQUIREMENTS

<b>Function</b>	To outline the requirements for housekeeping and personal conduct from a safety as well as a public image perspective.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Procedures</b>	<p>Housekeeping may be the most frequently neglected part of an employees or contractors responsibility, although it is an extremely important part of all operations. There are important safety reasons for an emphasis on good housekeeping. Liquid spills become slipping or fire hazards. Piles of rags, hydrocarbon soaked dirt or gravel are all fire hazards. Loose boards or piping can be a tripping hazard.</p> <p>Another important factor with good housekeeping is that an untidy work site can quickly become an unsafe work site. If the sight of paper, debris and minor oil spills around the operation can be accepted as normal, other more serious safety hazards can be quickly taken for granted. Good housekeeping can instil a "pride of ownership" feeling for the personnel which soon reflects into a well run, efficient, well maintained work site.</p> <p>Some general rules apply to good housekeeping:</p> <ol style="list-style-type: none"> <li>1) Clean up after any work has been completed. Ensure that all tools, equipment and supplies are cleaned and stored in a safe and tidy manner.</li> <li>2) Slippery and oily spots must be cleaned up or sanded.</li> <li>3) Nails must be removed from waste lumber.</li> <li>4) Extra care will be taken to ensure that aisles and walkways, exits and entrances to buildings, access to safety and fire fighting equipment, and access to first aid equipment are keep clear of obstructions and tripping hazards.</li> <li>5) A JOB IS NOT COMPLETE UNTIL THE CLEAN UP IS DONE.</li> </ol>

## 2.1 Safety Orientation

<b>Function</b> to job	To outline the Definite Oil Field Services Ltd. policy relating orientation and safety.
<b>Application</b>	All new employees and owner operators.
<b>Procedures</b>  as site specific	<p>Upon hiring, new workers must be given a safety orientation prior to commencing job duties. This orientation will serve to familiarize new employees and owner operators with Definite Oil Field Services Company safety policies as well</p> <p>safety issues. The purpose of the safety orientation is to help workers and owner operators carry out their activities in a safe and efficient manner.</p> <p>New workers and owner operators should be given the safety orientation by their Safety Representative. The safety training checklist and all orientation package documentation should be completed by the worker and the supervisor, signed, and filed at the Branch and Head Office.</p>

## 2.1 Core Safety Training Program Requirements

<b>Function</b>	To outline the safety training and certification requirements for Definite Oil Field Services Ltd. personnel.
<b>Application</b>	All field personnel and selected head office production personnel.
<b>Procedures</b>	<p>Within the oilfield industry certain training and certification requirements must be met to ensure that safety is an integral part of all job functions. Training will be carried out to ensure compliance with mandatory requirements, and other training will take place as determined by management.</p> <p>Managers must ensure that all applicable personnel receive the required minimum training for the job task. Additionally, a complete record of all safety training must be retained in a central location.</p> <p>Changes in regulations and training requirements will be regularly monitored to ensure that compliance with safety training needs are maintained.</p> <p>The Safety Manager is responsible to ensure that the following training and certification requirements are met.</p>
<b>Core Training</b>	<p>Facility operators and truck drivers must have the following training:</p> <ul style="list-style-type: none"> <li>- Standard First Aid</li> <li>- C.P.R.</li> <li>- H2S Alive</li> <li>- W.H.M.I.S.</li> <li>- T.D.G.</li> <li>- P.S.T</li> <li>- Confined Space Entry &amp; Rescue</li> <li>- General Oilfield Driving Instruction</li> </ul>

## 2.2 Management Training

Safety Managers and Supervisors are required to have the core training as well as training in loss control and risk.

## 2.3 Service Personnel

Non-Definite Oil Field Services personnel on-site must be qualified in the

following areas:

- Certification required by the nature of the work (e.g. H<sup>2</sup>S alive, transportation of dangerous goods certification for carriers).
- Basic technical training in the operation or service they are there to perform.

## 2.5 Short Service Work Program

New workers, whether new to the company, a job or a worksite, are at greater risk of injury than more knowledgeable and skilled workers. The short service worker (SSW) program therefore, provides a structured approach to orientating, training, mentoring and controlling new workers.

The SSW program establishes the basic skills and knowledge to perform safe work and provides a basic understanding of our safety culture.

### Regulations

Regulations include occupational health and safety regulations, as well as, all regulations, policies and procedures outlined in the Definite Oil Field Services Trucking Ltd. Safety Manual.

### Standards

Definite Oil Field Services Ltd. must ensure that new workers are enrolled in our company's SSW program and remain enrolled until they:

1. Have been in the SSW program under a mentor for at least 2 weeks or a minimum of 100 hours.
2. Are competent in the basic skills required to do safe work.
3. Understand and are committed to our safety culture.

Definite Oil Field Services Ltd. must ensure that all trainers and mentors have:

1. An understanding of the material they are teaching.
2. Effective training skills.
3. A positive safety attitude and an understanding of our corporate safety culture.
4. Responsibility for safety of their short service workers during the SSW period.

### ALL WORKERS MUST:

1. Provide instruction, coaching and additional safety precautions for short service workers to ensure their safety.
2. Not request a short service worker to do new tasks they are not trained for or competent in.

## 2.6 Safety Competency Evaluation

<b>Function</b>	To outline requirements for the evaluation of safety related competency of new workers.
<b>Application</b>	All new Definite Oil Field Services workers and owner operators.
<b>Scope</b>	Safety Managers are responsible for evaluating the knowledge and general safety competency of new workers and owner operators. This is done to ensure that work is done effectively and efficiently, while at the same time preventing the unnecessary waste of resources involving manpower, equipment, materials and the environment.
<b>Competency</b>	<p>Workers must attain the minimum skill level needed to operate in an unsupervised manner and to ensure compliance with Provincial Health and Safety Legislation which stipulates that where work may endanger a worker, it must be done by a competent worker. A competent worker is defined as a worker adequately qualified, suitably trained and sufficiently experienced.</p> <p>Definite Oil Field Services has developed a Code of Practice Job Observation Program that can be used as a tool to assist in demonstrating competency and safe work behaviours.</p>
<b>Evaluation</b>	<p>The following are considerations for Branch and Safety Managers when evaluating the safety competency of an employee / owner operator:</p> <ul style="list-style-type: none"> <li>- Does worker show regard for their own safety.</li> <li>- Does worker show regard for others safety.</li> <li>- Does worker show regard towards company safety policies.</li> <li>- Is the worker capable of completing the task safely.</li> </ul>



## CODE OF PRACTICE

Subject: Job Observation Program

### POLICY STATEMENT

The Job Observation program is used to identify behaviours (Safe or At Risk) at our operations. Through this process we will be able to determine Safe or At Risk behaviours on a job specific basis and take a proactive approach to modify behaviours which influence attitude and drive continuous improvement.

#### *Background*

- This is a tool which will measure and at risk behaviours.
- Job observations should be documented for both safe and at risk behaviours so it can be a proactive tool and not a fault finding medium.
- All employees on the job should be informed of this process.

#### Pre-Job Plan

- Determine frequency for completion of job observation report

#### Job Observation Checklist

- Identify Job or tasks to be observed.
- Supervisor is to fill in the report on a pre-determined basis (weekly, monthly, end of job, etc.).
- Retain checklists for period of time until all corrective action has been addressed.

## 2.6 continued

**OBSERVATION GUIDELINES**

The goal of the seven-step observation procedure is standardization and thoroughness. It is important that all observers do their observations in the same way. And thoroughness is important because the observations need to cover all of the same ground. Thoroughness is achieved by having the observer do both situation-centered and data sheet-centered observation in one procedure.

1. **Go to the action.** This means doing the observation where things are happening - the observer looks for the action. Observers who see that someone is about to get hurt stop the accident from happening.
2. **Look at people as much as possible.** This does not mean that the observers should not look at things and conditions. When they look at them, however, they must consider what the conditions indicate about the behaviour of people. The way the boxes are stacked over there, is it a sign that someone has moved them by hand or with a lift? This is the kind of question the observer asks continually.
3. **Introduce yourself.** When observers begin, they introduce themselves to the workers and explain what they are doing. They are not spies, and they show people their data sheet and talk with them about the observation process. Observers are a champion of the process, telling people to continue with their work and that they will be told what was observed when the observation is finished. Respect the people who are being observed. They know what they are doing, and they probably have reasons for doing the job the way they are. It is not the observer's job to boss them. The observer and the workforce share a common ground - no one wants an accident.
4. **Situation centered observation.** The observer takes time and studies the situation, looking for potential injuries. Effective observers do not go on to the next step until they either have a sense of potential injuries in the situation, or see that the situation is fundamentally safe.
5. **Data sheet-centered observation.** Now the observer goes down the data sheet like a check list, very systematically.
6. **Give verbal feedback.** After the observer has logged the safes and at-risks and has calculated the percent-safe, he or she is ready to give feedback on what was observed. **Stick to the facts.** When observers are discussing behaviour, they stick to the facts and do not talk about people or preach to them about safety. **Be specific.** The observer cites specific things so that people know what the feedback means. **Acknowledge people's progress.** The observer emphasizes improved performance as well as discussing areas for further improvement. **Discuss and ask.** When something that workers are doing looks at-risk to the observer, the observer discusses it with the workers and asks questions about the situation. **Do not argue.** The observer does not argue with someone who is resistant to the observation process.
7. **From start to finish - 20 to 30 minutes.** The whole procedure, including feedback, should take only 20 to 30 minutes.

**JOB OBSERVATION CHECKLIST**



**OBSERVATION CHECKLIST**

DECIDE-STOP-OBSERVE-ACT-REPORT

Behaviour	Safe	At Risk
Any change in behaviour as a result of being observed.	<input type="checkbox"/>	<input type="checkbox"/>
Personal protective equipment	<input type="checkbox"/>	<input type="checkbox"/>
Positions of people (striking against, struck by, caught, falling, contacting temp. extremes or electricity, inhaling, absorbing, swallowing)	<input type="checkbox"/>	<input type="checkbox"/>
Tools/equipment fit job	<input type="checkbox"/>	<input type="checkbox"/>
Use of tools/equipment	<input type="checkbox"/>	<input type="checkbox"/>
Procedures followed	<input type="checkbox"/>	<input type="checkbox"/>
Work practices followed	<input type="checkbox"/>	<input type="checkbox"/>
Rules followed	<input type="checkbox"/>	<input type="checkbox"/>
Housekeeping behaviour	<input type="checkbox"/>	<input type="checkbox"/>
Communication	<input type="checkbox"/>	<input type="checkbox"/>
Attention to work	<input type="checkbox"/>	<input type="checkbox"/>
<b>Work Site/Work System</b>		
Housekeeping	<input type="checkbox"/>	<input type="checkbox"/>
Workplace design, for examples:	<input type="checkbox"/>	<input type="checkbox"/>
- physical layout	<input type="checkbox"/>	<input type="checkbox"/>
-strength and exertion required	<input type="checkbox"/>	<input type="checkbox"/>
Conditions e.g. slippery surface	<input type="checkbox"/>	<input type="checkbox"/>
Conditions of tools/equipment	<input type="checkbox"/>	<input type="checkbox"/>
Safeguards in place	<input type="checkbox"/>	<input type="checkbox"/>
Procedure/job aids available	<input type="checkbox"/>	<input type="checkbox"/>
Communication System	<input type="checkbox"/>	<input type="checkbox"/>
Training System	<input type="checkbox"/>	<input type="checkbox"/>




Job Task Evaluated: \_\_\_\_\_ Date: \_\_\_\_\_

Observations:	Reinforcement (R/C) Correction	Follow-up Action
_____ ( )	_____ ( )	_____
_____ ( )	_____ ( )	_____
_____ ( )	_____ ( )	_____
_____ ( )	_____ ( )	_____

Print Name: \_\_\_\_\_ Date: \_\_\_\_\_

No Correction Required:  Correction Required:

If correction required, please check all applicable items below requiring attention.

 Reaction of People	 Positions of People	 P.P.E.
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### 3.0 FACILITY SECURITY REQUIREMENTS

<b>Function</b>	To limit access to an Definite Oil Field Services site and equipment.
<b>Application</b>	Unauthorized personnel.
<b>Procedures</b>	<p>All operations must be equipped with a locking gate.</p> <p>The gate, if possible, must remain locked when the operation is unattended by Definite Oil Field Services personnel.</p> <p>All operations must be surrounded with a perimeter fence, preferably chain link topped with three barbed wire strands. The fence should be 1.8 metres high and have emergency exits, which open only from the inside, located at appropriate positions around the perimeter. The fence shall be kept in good repair at all times. No unauthorized personnel are allowed on an Definite Oil Field Services Trucking Ltd. owned or operated site without authorization.</p> <p>All tank drain valves on all tanks must be blinded or plugged and chain locked.</p> <p>All buildings must be equipped with locking doors. All doors must be locked when operation is unattended by Definite Oil Field Services personnel.</p> <p>All unload riser shut off valves must be chain locked when not in use. All fluid transfers must be overseen.</p> <p>All visitor and contractor handling requirements outlined in Section 8.0 of this manual must be followed.</p>
<b>Hazards</b>	All employees must be aware of the potential hazards associated with unauthorized entry to the operation sites. These hazards include vandalism, theft, and fluid releases.

## 4.0 EQUIPMENT PROTECTION DEVICES

<b>Function</b>	To outline the procedures for the safe use of equipment protection devices.
<b>Application</b>	All field and office operation equipment.
<b>Procedures</b>	Equipment protection devices must not be altered, tampered with, adjusted or repaired except by qualified persons designated by the Branch Manager or Supervisor.

### 4.1 Shut Downs

Equipment shut down systems (electrical, mechanical or pneumatic) must not be bypassed. Instead, the piece of equipment should be taken out of service to facilitate the repairs. If it is impossible to undertake repairs without bypassing or jumping the shut downs, then the following procedures must be followed to ensure adequate monitoring and subsequent removal of the bypass or jumper:

- 1) A work permit must be issued by the supervisor to install a bypass or a jumper.
- 2) The field supervisor is responsible for the removal of the bypass or the jumper and must note on the permit the following:
  - Reason for the bypass or jumper.
  - Approximate length of time required.
  - Who installed the bypass or jumper and an alternate who knows its location.
  - Who will remove the bypass or jumper.
- 3) The permit must be given to the person installing the jumper.
- 4) At least two "DANGER" tags must be installed noting that the safety system is bypassed; one tag must be placed locally at the jumper location and the second on the control panel relating to the piece of equipment.
- 5) There must be continuous monitoring of the equipment that is bypassed for the duration of the job. If the equipment cannot be monitored it must be shut down. Alternatively an emergency shut down of equivalent protection may be installed in place of continuous monitoring.

## 4.1 continued

- 6) The installation and location of the bypass must be noted in the work site logbooks.
- 7) Upon removal of the bypass or jumper the "DANGER" tags must be removed and the work permit returned to the issuer. The removal of the bypass or jumper must be recorded in the daily log at the work site.

## 5.0 GUARDING

<b>Function</b>	To outline the procedures required to protect personnel from injury due to improperly guarded rotating equipment or heat sources.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Procedures</b>	<p>Safeguards are usually supplied with and installed on equipment from the manufacturer, and should not be removed except for maintenance, repair, testing or adjusting, where the equipment has been locked out. Upon completion of a task any safeguards removed must be replaced prior to returning the equipment to service.</p> <p>Safeguards are required in order to protect workers from coming into contact with:</p> <ul style="list-style-type: none"><li>- All rotating equipment, belts, pulleys, etc.</li><li>- Pinch points.</li><li>- All piping and equipment operating at a temperature that could cause injury (hot or cold). Insulation or cladding is an acceptable safeguard.</li><li>- Any openings that could present a hazard.</li><li>- Open flame.</li><li>- Steam, hot water or refrigeration lines.</li></ul> <p>Before any guards are removed from rotating equipment, it must be locked out and tagged in accordance with the lockout procedures (6.36).</p>



## 6.0 MATERIAL HANDLING

<b>Function</b>	To provide the procedures for safely handling materials.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Procedures</b>	<p>The improper handling of materials is one of the greatest single causes of injury in industry. Most of the injuries are caused by simple, sometimes repetitive action. Such injuries could be avoided by the employee, had full attention been given to the job at hand.</p> <p>Bruises, lacerations and puncture wounds of the extremities and strains and sprains of the back and other joints are the types of injuries encountered most frequently from material handling.</p> <p>Before handling materials, be alert to the possibility of sharp edges, nails, splinters, sharp wire ends, strap ends or other projections that might cause cuts or punctures.</p> <p>Wear serviceable and appropriate gloves and safety footwear when handling rough or heavy objects.</p> <p>Be sure to keep hands and fingers away from the point of "pinch" or "bite" between the material being handled and another item, or the bench, floor, ground, structure or other fixed object.</p> <p>Never carry sheet glass, tin or similar material under the arm. Wear appropriate gloves, use both hands and carry it to the front and side, where it does not block your vision. If at all possible, use two people to perform the task.</p> <p>If an object is heavy or large, check its weight by tipping or moving it before attempting to lift or carry it.</p> <p>If an object is too heavy or bulky for you to lift, get someone to help you - or use mechanical means.</p>

## 6.1 Lifting Objects

When it is necessary for you to lift an object, use the following method:

- 1) Fill out a JSA/Hazard assessment before conducting work.
- 2) Face the object, place feet fairly close together and get close to the object to lift.
- 3) Bend the knees and squat by the object in a comfortable position (Don't stoop over it).
- 4) Get a firm, balanced grip on the object.
- 5) Keep the back and arms as straight as possible (do not twist the body).
- 6) Lift the object by straightening the legs while keeping the back straight (don't jerk).
- 7) Keep the object as close to the body as possible.

## 6.2 Moving Objects

When it is necessary to move an object from one location to another, use the following procedure:

- 1) Be sure to fill out a JSA before conducting work.
- 2) Be sure you are capable of lifting and carrying it.
- 3) Be sure you have a clear route to where you are going.
- 4) Be sure your footing is O.K.
- 5) Be sure you have a clear place to put the object down.
- 6) Pick the object up as described above.
- 7) Walk carefully, twisting as little as possible.
- 8) Set the object down carefully, by reversing the lifting procedure.

Never carry a heavy object onto or off of a truck, unless the truck bed is flush with, and against the dock or loading platform, or a suitable deck plate or ramp is securely in place.

Don't attempt to step up or down a high step with a heavy or bulky object. Use a ramp or skid instead.

Use care and caution in the handling of all objects. Many items, harmless in themselves, can cause injury if improperly or thoughtlessly handled.

### 6.3 Handling Lumber

The handling of lumber, both new and used, is much more hazardous than it appears on the surface.

Appropriate gloves must always be worn when handling any type of lumber.

When handling used lumber, particularly from a scrap pile, be especially alert for protruding nails, wires, poisonous plants and snakes.

Protruding nails should always be removed from scrap lumber whether it's to be used again or discarded. Bending nails over helps but does not completely eliminate the hazard.

Never loosen your grip and allow lumber to slide through your hands.

Lifting large pieces of lumber that are water logged or extremely muddy can be a hazard. Pry them loose and test their weight before attempting to lift them. If they are too heavy - get help.

One person should not carry extremely long pieces of lumber in congested areas even if the weight is not too great. Two persons should carry near each end to protect against injury to others.

Full sheets of plywood or insulation (4' x 8' or larger) are too large and awkward for one person to handle. Get help and be sure your vision is not blocked.

If mechanical means are not available, long, heavy timbers should be carried by at least two people. The people should lift, carry and lower on signal so that no one will be hurt.

## 6.4 Handling Drums

To loosen or tighten a bung, always use a proper type bung wrench with a long handle.

A wadded rag, piece of waste paper or similar item should be held tightly over the bung when it is loosened to catch any potential spray from pressure within the drum.

If a drum contains acid, caustic or any other injurious chemical, all appropriate safety attire will be worn when removing the bung.

The use of drum carts, drum tilters and drum racks will greatly increase the safety factor when handling full or partly full drums. Be sure the chime catch is securely engaged before raising or tilting the drum.

Appropriate gloves should always be worn when handling or moving drums.

A drum may be moved a short distance by tilting and rolling it on the bottom chime. Extreme care must be taken, however, to watch both the balance of the drum and other objects which might strike the fingers.

When necessary to move a drum from one location to another, always use a winch, hoist, or other power equipment if available and practical.

To lay a full or partly full drum on its side, use the following procedure:

- 1) Stand facing the drum, with one foot against the bottom, legs apart and the other foot back about one-half steps.
- 2) Reach to the far side of drum and pull it towards you.
- 3) When drum is balanced, steady it with both hands and face it with feet spread apart.
- 4) Lower drum with both hands on the inner side of top chime.
- 5) Keep your back straight while lowering drum.
- 6) WATCH OUT FOR YOUR TOES.

Roll drums by pushing, with hands on top. Change direction by gripping one chime and pulling back, then proceed to push with both hands on top. Do not kick or roll the drum with your feet.

**6.4 continued**

When necessary to go down a skid or slope, skid the drum endwise or use a snub rope with the drum in a roiling position.

To go up a skid or steep slope, if power is not available, use a snub rope, with one man pulling and at least two men pushing.

To set a full or partly full drum upright, use the following procedure:

- 1) Stand close to end of drum with one foot directly in front and the other a little to the side.
- 2) Squat, and keeping your back straight, place hands about 8" apart under bottom chime.
- 3) Using legs and arms, raise drum to balance position.
- 4) Guide the drum to a standing position with both hands on the inner side of the chime, on the near side.

Never put fingers on outside edge of chime when setting up or moving a drum in close quarters.

**6.5 Handling Sacked Materials**

Use the proper position and action for lifting.

When standing fairly erect, rest the sack against one hip and your abdomen. Walk carefully, balancing sack with the other hand.

To carry a sack on your shoulder while in a standing position, boost the sack to one shoulder, place hand on your hip so the sack rests partially on your shoulder and partially on your arm, balance sack with the other hand.

When the sack is to be put down, reverse the lifting procedure. If it must be lowered to the ground, bend your knees not your back.

If building a pile, swing the sack forward to its proper place from either the shoulder or hip, depending on the height of the pile. Do not attempt to heave or toss the sack.

Sacked material should always be properly "cross-tied" if piled more than two sacks high.

When handling cement, chemically treated muds, quicklime, or other materials that create excessive flying particles or dust, proper eye protection and dust masks must be worn.

**6.5 continued**

When handling sacked material for prolonged periods, employees shall keep as much of the body covered as possible. Exposed parts of the body should be washed frequently to prevent chemical irritations and burns. Review the product M.S.D.S prior to commencing work, if product being handled is questionable.

**6.6 Handling Chemicals**

Due to the many kinds and types of chemicals used in our operations, it is not feasible to detail the specific hazards involved and the safety precautions necessary to protect against them, in this manual. For additional information contact immediate supervisor / appropriate safety personnel.

All containers of hazardous chemicals shall be plainly labelled to properly identify their contents and warn against their dangers.

Always determine exactly what chemicals you are using and know all the precautions that are necessary to prevent injury.

Chemical goggles, chemical gloves, proper respirators and suitable body and clothing protection, as applicable, shall be worn when handling hazardous chemicals.

All chemical containers shall be kept tightly closed when not in use and shall be kept in a clean, dry place, away from excessive heat.

All chemical containers shall have a safe means of removing the chemical without excessive splash, spray or other uncontrolled contamination of the surroundings.

When necessary to dilute a chemical with water, as a general rule, the chemical should always be put into the water. Water should not be added to the chemical. When diluting an acid, the acid must always be added to the water.

Any mixing of chemicals shall be done exactly as directed by the manufacturer.

When any hazardous chemical is spilled, proper cleanup and disposal of the spill and any contaminated cleanup materials shall be handled in accordance with directions contained in the "spills" section of this part (33.0) and the material MSDS.

Hazardous chemicals to be disposed of must not be dumped into public sewer systems or into lines emptying into creeks or rivers. They should be disposed of in an environmentally safe manner.

## 6.7 Handling Materials by Power

All materials which are too large or too heavy to be safely handled by hand shall be handled by power operated equipment.

When power operated equipment is available it should be used on large or extended jobs of handling small materials. This can usually be done with a saving of time and increased safety.

All basic power operated equipment including winches, drums, cables, blocks, safety hooks, slings, etc., shall be inspected in accordance with applicable regulations and be kept in good operating condition at all times.

Ties, slings, bridles, etc. shall be of proper size and strength for the load to be lifted and shall be securely fastened to the load.

All operators must be competent in the use of any equipment.

If the operator cannot clearly see every part of the operation to be performed, a signalman will be required to assist him. Radio communication may be required, dependant on individual situations.

When a signalman is used, he / she shall be in a position to see every phase of the operation and be clearly seen by the operator.

Any signal that might possibly be required will be thoroughly understood by both the operator and the signalman.

No worker shall ever go under a suspended load.

If it is necessary to guide a load, guidelines / tag lines of sufficient length for complete safety of the workmen will be used.

When loading material with a winch line, workers shall stay far enough away to avoid injury if the line should fail.

When handling material by use of a "come-along", good judgement is to be used to avoid sudden movement or shock that would put undue strain on the equipment.

When filling out JSA, all considerations must be identified.

A)Weight.

B)Size.

C)Number of times load is moved.

D)The manner in which the load is moved.

All lifting/Moving equipment will be provided by management and Will also train a competent worker on how to use it.

Ergonomic training will be provided.

## 7.0 PIPING IDENTIFICATION

<b>Function</b>	To outline requirements for piping identification in operation facilities / tank farms
<b>Application</b>	All Definite Oil Field Services Ltd. operation facilities / tank farms
<b>Procedures</b>	<p>Managers will ensure that each facility / tank farm has a satisfactory piping identification system in place to identify substances hazardous to workers, by reason of being flammable, corrosive, toxic, or of hazardous temperature or pressure. This system of identification will be made known to workers and maintained in a legible condition.</p> <p>Piping identification can be done by colour coding (painting) or by labelling. Direction of flow will be indicated by arrows. Identification markings should be located so as to be visible from the regular work area.</p> <p>Piping identification schemes should be developed with an attempt at following industry standards (CSA standard # B53-1958) and be consistent throughout the entire facility.</p>



## 8.0 EXITS

### Function

To outline the requirements for exits from a work site.

### Application

All Definite Oil Field Services Ltd. operations.

### Issue

A lack of exits in sufficient number or locations at a work site can result in a worker being unable to escape an area in the event of a hazardous situation arising. Becoming trapped within a work site that contains breathing, fire, explosion, electrical or other hazards could result in injury or even death for a worker.

## 8.1

### Emergency

#### Exits

Managers shall ensure that all work areas within an operation have an emergency means of escape to allow for evacuation of workers in the event that the malfunctioning of work processes create an immediate danger where regular means of exit could be rendered dangerous or unusable.

## 8.2

### Doors

Doors to and from a work area must open away from a hazard without substantial effort and be kept free of obstruction. Doors should not open directly onto stairways but shall open onto floors or landings having a width in excess of the swing of the doors.

## 9.0 WARNING SIGNS, TEMPORARY SIGNS & BARRICADES

<b>Function</b>	To outline the requirements for temporary signs and barricades to be used to warn of hazards in and around work areas.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Temporary Hazards</b>	<p>Wherever and whenever hazards exist, no matter how temporary due to operations or maintenance being performed, the necessary signs / barricades must be in place to ensure the safety of persons who may be in or who may enter the location and must clearly identify the hazard.</p> <p>Whenever overhead work is being carried out, the work area must be conspicuously posted with signs reading "DANGER - WORKERS OVERHEAD"</p> <p>Whenever hot work is being carried out. "DANGER - HOT WORK IN PROGRESS"</p> <p>The appropriate sign should be posted at the work site, if applicable, to warn all personnel of the potential danger in the immediate area.</p>

## 10.0 FACILITY LIGHTING

<b>Function</b>	To outline requirements for lighting at Definite Oil Field Services Trucking Ltd. operations.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Issue</b>	Poor lighting can result in potential hazards in the work place, especially in areas which include stairs and other falling hazards, process areas with moving machinery, and areas where vehicles are operating.
<b>Requirements</b>	<p>The Manager or designated supervisor shall ensure that sufficient illumination is available at a work site to enable work to be done safely. In instances where failure of normal lighting could endanger workers, the Manager or designated supervisor shall ensure that emergency lighting will generate sufficient illumination to enable workers to do all of the following:</p> <ul style="list-style-type: none"> <li>- Leave work site in a safe condition</li> <li>- Initiate emergency shut-down procedures</li> <li>- Restore normal lighting</li> </ul>
<b>Restricted Visibility</b>	Workers shall not be permitted to work where visibility is restricted by the presence of smoke, steam or other substances in the atmosphere, to the extent that it might result in workers being injured, unless safe means of communication are provided.

## 11.0 WELDING & CUTTING

<b>Function</b>	To outline the requirements for the safe performance of welding tasks.
<b>Application</b>	Any Definite Oil Field Services Ltd. operation where welding operations may take place.
<b>Issue</b>	Welding is an inherently hazardous operation. However, with adequate safety precautions in place and due care observed by all employees there need be no danger to the health and safety of welders or any other person.

### 11.1

#### Hazards

An understanding of the potential hazards common to most types of welding is essential.

- Damage to the eyes and skin from infrared or ultra violet light.
- Burns to the skin or eyes from contact with hot metal or sparks.
- Harmful physiological effects from breathing fumes or gases.
- Material handling accidents.
- Shocks from electric current.

Blinding light is a familiar observation in the welding process. The molten metal manifests infrared radiation while the electric arc produces ultra violet radiation. The complete welding operation thus produces intense visible light.

Sudden and pulsating flashes can result in "weld flash" or "flash burns" to the eyes. Eye burns are extremely painful and must be treated immediately. Repeated exposures can cause permanent eye damage.

Intense radiant energy may also cause skin to be damaged and cotton clothing to deteriorate. Woollen or leather garments are recommended to provide better protection from sparks.

The potential harm from gas fumes generated from the welding process depend upon the chemical composition of the fume, the concentration of the fumes in the breathing zone and the length of time the individual is exposed to the fumes.

The composition of the fume depends upon the various materials being used in the welding process and by the temperature of the welding operation.

## 11.1 continued

The more important elements that may be present are ozone, carbon dioxide, carbon monoxide, the oxides of nitrogen and the various specific constituents of the rods, rod coatings and the metals themselves.

The oxides of nitrogen and ozone are the principle toxic gases produced by welding on steel. Ozone is an intensely irritating gas produced by the action of the electric arc. Other toxic fumes may be produced if the steel has been coated with certain material or when welding on certain alloys.

Some non-toxic paints can give off toxic fumes when heated under the welding arc or cutting torch.

Fumes from such metals as copper and zinc have been known to produce what is known as "metal fume fever". While this has never been known to be fatal, the distress and discomfort are very objectionable.

Most welding is done using coated rods or electrodes. Compounds that are contained in the welding rod or electrode coating include oxides of various metals, hydroxides, carbonates, silicates, fluorides and organic materials.

The fluorides are of the greatest significance due to their toxicity and the fact that large amounts are released during the welding process, specifically the coating on the rods for welding stainless steel, which are invariably high in fluoride content and require strict controls. Fluorides are also present in some fluxes used for welding, brazing and soldering.

Avoiding electric shock is largely in the control of the welder. Most electric shocks experienced at welding voltages have not caused serious injury; however, these voltages are sufficiently high that under certain conditions they may be fatal. Even mild shocks can cause involuntary muscle contractions leading to the possibility of a fall, sometimes from a high place.

Wearing clothing that is damp from perspiration or working in a wet place can reduce the skin contact resistance and increase the risk of electric shock.

## 11.2 Controlling Welding Hazards

Welding is defined as hot work. A safe work permit is required for welding operations. Welding hazards are controlled by using proper ventilation methods, using respirators as required, using proper personal protective equipment and clothing as required and by using safe work practices.

## 11.3 Ventilation

The following is the minimum proper ventilation to be used:

- 1) For highly toxic fumes and heavy production or welding in confined areas, mechanical exhaust ventilation must be used and comply with legislated requirements for air exchange.
- 2) When welding coated metals containing toxic material in the coating, the use of supplied air respirators or a specifically designed exhaust system is mandatory. Controls for the ventilation system that must meet the regulated requirements for air exchange should be near the welding station.
- 3) When welding is taking place in a confined space such as a tank or boiler then an air supplied hood or respirator must be used.

Both the welder and the assistant must wear protective clothing. The clothing required depends on the size, nature and the location of the work.

## 11.4 Clothing

Both the welder and the assistant must use the appropriate eye protection during welding or cutting operations. Whether that is goggles, helmets, or hand shields, will be determined by the nature of the task and the welder's experience.

Except when engaged in light work the welder should also wear flameproof gauntlet style gloves, flameproof and radiation proof apron, woollen clothing (less likely to ignite), flame resistant leggings, high boots (or use metal screens in front of the legs), and ear protection for work in confined spaces, overhead welding or plasma torch applications.

## 11.5 Safe Welding Practices

The following safe welding practices are to be followed by all welding operations:

- 1) Ensure only qualified and competent personnel operate welding equipment.
- 2) Maintain all equipment in good mechanical and electrical condition. Report defective equipment and hazardous working conditions immediately.
- 3) Be alert to possible fire hazards. Always ensure that the item to be welded is in a safe location or remove any flammables or combustibles from the immediate welding area.
- 4) Ensure that the proper fire extinguishers are provided and that both the welder and the assistant know how to use them.
- 5) Check that the ventilation system is operational prior to starting work and at regular intervals during the work to ensure that it is still functional.
- 6) Ensure that no painting or similar operation is taking place in the immediate vicinity of the welding task. Under no circumstance is welding to be performed in an atmosphere containing a suspended mist because of the significant explosion hazard.
- 7) Prior to carrying out any welding or cutting procedure inside a confined space, ensure that combustible gas and oxygen deficiency tests have been carried out in the presence of and to the satisfaction of the welder.
- 8) Warn all other workers in the immediate area about weld flashes / sparks.
- 9) Under no circumstances are welding operations to be performed in the same working area where degreasing or other cleaning operations are being done.
- 10) Under no circumstances are propane torches to be used without a regulator.
- 11) When working overhead, rope off the area below the work or take equivalent measures to protect the other workers in the vicinity. Signs reading "Danger - Persons Overhead" are to be conspicuously posted. If conditions warrant, position a safety watch for warning persons who may approach, about the overhead danger.

## 11.5 continued

- 12) Keep cylinders, cylinder valves, and cylinder regulators free from oil, grease or soap. This is particularly important in oxygen cylinders as a mixture of oxygen and oil / grease can potentially
- 13) Do not use fittings of copper or copper alloy of more than 70 in acetylene use as this combination may form explosive compounds.
- 14) Do not store, transport or use acetylene cylinders on their side as this permits loss of acetone and may cause an explosion.
- 15) Use a cradle or box when hoisting cylinders. Never use cylinders as rollers.
- 16) If a cylinder catches fire and cannot be extinguished, cool the outside of the cylinder with water, if safe to do so, to prevent a rupture while the contents burn themselves out.



## 12.0 HAND TOOLS / POWER HAND TOOLS

**Function** To outline procedures for the safe use of hand tools and power hand tools.

**Application** All Definite Oil Field Services Ltd. personnel.

### Procedures

#### Hand Tools

Examine tools carefully before using them to see that they are safe. Do not use tools with loose or split handles, burred heads, wrenches with jaws spread, etc.

Chisels meant for pneumatic tools must not be struck with a hand hammer.

Workers using shovels, picks, axes, etc., must be spaced far enough apart to eliminate the possibility of their striking each other. The job supervisor should watch this closely.

Be sure that you have the proper tool for the job (that it is not too large or too small) and that your wrenches are COMPLETELY on the nut or pipe to be turned. The jaws must point in the same direction the nut is to be turned.

Files without handles must not be used.

When working above ground, handle your tools deliberately.

Keep all tools clean and free of oils or grease,

PASS tools from one worker to another - - do not throw them.

In hoisting or lowering tools, use tool buckets and make sure they are well secured and that there is no possibility of any of them falling while being hoisted.

When laying tools down, pay particular attention that you place them where they cannot be jarred or knocked off. Also, place them where they will not create a stumbling hazard.

Do not throw tools down after a job is completed.

Wherever possible, workers should not work at any place where other workers are handling tools overhead. However, in some types of work it is impractical to always follow this rule.

Do not overload chain falls and blocks, as it stretches the hooks and weakens them for future use.

## 12.0 continued

Flange spreaders should be used whenever possible to minimize the use of wedges.

## 12.1

**Power Hand Tools**

- All belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains or other reciprocating, rotating or moving parts of equipment shall be guarded.
- All machine guards shall be kept in good condition and appropriate guards shall be fastened in place.
- All hand tools shall be guarded at point of operation.
- Employees are not to operate tools or machines unless guards are in place.
- All power tools and machines shall be stopped and power supply shall be turned off or disconnected and lockout tag attached before they are adjusted, lubricated or repaired.
- All portable, power-driven, circular woodworking saws shall be equipped with guards above and below the base plate or shoe. The lower guard shall automatically and instantly return to the covering position after the cut is made.
- All portable abrasive wheels larger than 2 inches or 5.08 cm in diameter shall have safety guards covering the spindle and 180 degrees of wheel. Guards are not required on wheels while they are being used for internal work only.
- All abrasive wheels shall be checked before mounting to be sure the spindle speed is not greater than that for which the wheel is designed.
- Grinding wheels shall fit freely on the spindles. If a bushing is used, it must be shorter than the width of the wheel so it does not contact the flanges.
- All hand and power tools and similar equipment are to be maintained in good condition.
- Personnel using hand and power tools who are exposed to the hazards of falling, flying, abrasive or splashing objects, or are exposed to harmful dusts, fumes, mists, vapours or gases, must use the appropriate personal protective equipment which is intended to protect them from the hazard involved.

## 12.1 continued

- All hand-held powered plate sanders, grinders with wheels 2 inches or 5.08 cm or less in diameter, routers, planers, laminate trimmers, nibblers, shears, scroll saws and jigsaws with shanks one-fourth inch wide or less may be equipped with only a positive on-off control.
- All hand-held powered drills, tappers, fastener drivers, horizontal, vertical and angle grinders with wheels greater than 2 inches or 5.08 cm in diameter, disc sanders, reciprocating saws, sabre saws and other similar operating power tools shall be equipped with a momentary contact on-off control. (They may have a lock-on control provided that turn-off can be accomplished by a single motion of the same finger or fingers that turn it on.)
- All other hand-held powered tools, such as circular saws, chain saws, and percussion tools without accessory holding means must be equipped with a constant pressure switch that will shut the power off when the pressure is released.

**12.2****Electrically Driven Hand Tools**

- All electrical portable tools shall be grounded by use of three conductor cord and polarised plug and receptacle or be of approved double-insulated type.
- Electric cords shall not be used for hoisting or lowering tools.
- Electric cords shall be repaired or replaced if terminals become loose or insulation is cracked or broken.
- Only explosion proof electric tools shall be used in gas hazardous areas.

**12.3****Air Driven Hand Tools**

- When compressed air is used for cleaning purposes, the nozzle pressure shall be reduced to 206 KPA or less.
- Effective chip guarding shall be provided when compressed air is used for cleaning purposes.
- Proper personal protective equipment such as goggles, face shields, respirators, etc., as applicable, shall be worn when using air for cleaning purposes.

## 12.3 continued

- All abrasive blast cleaning nozzles shall be equipped with "dead man" controls.
- Air hoses and connections used for air tools shall be designed for service for which they are used.
- When connecting the air hose to the tool, the supply end shall be connected first and the hose blown clear of any moisture or foreign matter before connecting the tool.
- Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tools from being accidentally disconnected.
- Safety clips or retainers shall be securely installed on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.
- Only heavy duty impact-type sockets shall be used on powered impact wrenches. Ordinary sockets designed for hand tools will not withstand the shock loading of the power tool.
- When using powered tools, the operator must be aware of any torque exerted by the tool and position himself to overcome the shock should the driven element hang or stick.
- Chisels, chippers or the like shall be removed from power tools when they are not in use.
- Power tool heads such as chisels, chippers, etc. shall not be struck with a hand hammer or used for anything other than their intended purpose.
- All pneumatically driven nailers, staplers, and other similar equipment provided with automatic fastener feed, which operate at more than 100 psi or 68 kpu pressure at the tool, shall have a safety device on the muzzle to prevent the tool from ejecting fasteners unless the muzzle is in contact with the work surface.
- Airless spray guns which atomize paints and fluids at high pressure shall be equipped with automatic or visible manual safety devices, or their equivalent protection, which will prevent release of the fluid until the safety device is manually released.
- Air hoses exceeding 1/2 inch or 1.27cm, inside diameter, shall have a safety device at the source of supply or branch line that will reduce pressure in case of hose failure.
- Air hoses shall not be used for hoisting or lowering tools.

## 12.4

### Hydraulic Hand Tools

- All hydraulic jacks shall have the rated lift legibly and permanently affixed on the jack.
- All hydraulic jacks shall be thoroughly inspected at least every six months. If used at other locations, it shall be inspected each time it is sent out and returned.
- All hydraulic jacks shall be properly maintained and lubricated.
- Fluid used in hydraulic jacks shall be fire resistant and meet Bureau of Mines standards.
- All jacks shall have a positive stop to prevent over-travel.

## 12.5

### Explosives Actuated Hand Tools

- There are few, if any, explosive actuated hand tools used in our operations.
- If any explosive actuated hand tools are purchased, they shall meet CSA Standard 2166-1975 or ANSI Standard, A10.3-1970, Specifications for Explosive Actuated Fastening Tools.
- Any worker who is to use explosive actuated tools shall be thoroughly trained in the use of the particular tools and shall be familiar with requirements of OH&S General Safety Regulation 448/85 Regulation 43, Explosive Actuated Fastening Tools.

## 12.6

### Fuel Powered Hand Tools

- Fuel powered hand tools shall not be operated in a flammable atmosphere.
- Fuel powered tools such as chain saws, lawnmowers, edgers and the like are only to be operated by persons thoroughly familiar with their hazards.
- Engine-mounted fuel tanks are not to be re-fuelled until the engine has been stopped and allowed to cool.
- No maintenance, repairs or mechanical adjustments shall be made on fuel powered hand tools unless the engine has been
- Newly purchased power lawnmowers shall meet the latest ANSI Standard B71.1, Specifications for Power Lawnmowers.

### 13.0 UNDERGROUND UTILITY LOCATIONS / EXCAVATIONS

<b>Function</b>	To outline the procedures for the conduction of excavating and trenching.
<b>Application</b>	All Definite Oil Field Services Ltd. Personnel.
<b>Procedures</b>	Any ground disturbance on site must be accompanied by the appropriate precautions as workers could be injured by ground collapsing. Damage to underground lines could lead to expensive repairs and possible injury or death (explosions, electrocution, etc.).
<b>Underground Utility Locations</b>	Prior to any ground disturbance, underground lines in the area where the work is to be done must be located on the surface by contacting the local utility companies or Alberta One Call. All underground lines must be uncovered by hand digging or day-lighting prior to operating trenching equipment within 5m of the line.
<b>Excavations And Trenches</b>	<p>Before a worker can begin work in an excavation or trench more than 1.5m in depth (and closer to the wall than depth of excavation) the following should be done to protect the worker from cave-ins:</p> <ul style="list-style-type: none"> <li>- Cut back wall of excavation (at an angle not less than 45 degrees) to reduce height of walls to less than 1.5m.</li> <li>- Install temporary protective structures.</li> <li>- A combination of cutting back walls and installing temporary protective structures.</li> <li>- Excavations and trenches over 3m deep must have temporary protective structures certified by a professional engineer and be of sufficient strength to prevent walls from collapsing.</li> <li>- Foundations near the excavation site must be properly supported prior to commencement of digging.</li> <li>- Support for power line poles must not be reduced by excavation work.</li> <li>- Material excavated during digging should not be piled within 1m of the edge of the excavation and should not have an angle of less than 45 degrees from the vertical.</li> <li>- Power equipment such as backhoes or post hole augers must not be operated within 0.6m (2') of an exposed underground utility.</li> </ul>

## 14.0 ELECTRICAL SAFETY

<b>Function</b>	To outline the requirements for the safe performance of work in the vicinity of or involving electrical equipment.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Procedure</b>	Electrical equipment presents a hazard to workers when improper procedures regarding its handling and maintenance are not followed. Unnecessary risks should be avoided, even at low voltages, as under certain conditions a shock from 100 volts or lower can be fatal. Only qualified personnel are allowed to perform work on electrical equipment.
<b>Warning Signs</b>	Managers or designated supervisors must ensure that all high voltage equipment is properly marked as well as buried lines.
<b>General</b>	<p>The following are general electrical safety precautions:</p> <ul style="list-style-type: none"> <li>- Never handle electrical wires while standing or sitting in a wet or damp place.</li> <li>- Switches must be shut off and padlocked in accordance with the Zero Energy State lock-out and Tagging procedures (3.36).</li> <li>- Use caution when throwing high voltage breakers. Arcing parts or sudden moving parts such as fuses or circuit breakers and their handles must be located and shielded to preventing burning or injuring personnel.</li> <li>- Electricians must notify Definite Oil Field Services personnel before closing a switch.</li> <li>- No work should be done on any live circuit, as the insulation on electrical wires cannot be depended upon. If absolutely necessary to work on live circuits, wires should be worked on one at a time.</li> <li>- Keep all parts of the body well insulated and away from contact with the ground or other equipment by using rubber type footwear, rubber mats, and rubber gloves.</li> <li>- Electricians must wear fibre type or non-conducting type of hard hat.</li> <li>- Handles of electrical tools must be properly insulated to prevent short circuits across them.</li> </ul>

## 14.0 continued

- Watch out for other types of wires getting crossed with high-tension lines, thus becoming dangerously charged.
- Lighting installed for tank cleaning purposes should be explosion proof and located at the man-ways.
- Light circuits must be de-energized before removing or installing light bulbs.
- Fuses must never be bridged with a wire and fuse boxes will be kept closed.

### Electrical Grounding

The following are rules for safe grounding:

- The neutral wire of 110-200, 3 wire service must be grounded at the transformer service switch and cabinet.
- Grounding must be in accordance with provincial regulations.
- Frames of all electrical machines must be grounded.
- All service switch boxes, motors and conduit systems must be grounded.

### Electrical Overhead Hazards

No cranes, back hoes or similar lifting devices shall be operated or located within 6 meters (20 feet) of power lines. Operation within this distance requires a Safe Work Permit / isolation.

Clearance distance:

All voltages to Ground <u>Line voltages</u>	Minimum Distance	
	<u>Meters</u>	<u>Feet</u>
0 - 5,000	2	7
5,000 - 50,000	3	10
50,000 - 250,000	4.5	16
Over 250,000	6.0	20

Clearances apply in any direction, vertical or horizontal. If it is necessary to work closer than the minimum distance listed, authorization is required from the local Power Company.



14.0 continued

## **Emergency Response**

If anyone should come into contact with a live wire or cable, and be unable to let go, on no account try to pull them with your bare hands or you too will be similarly affected. Instead, shut off the current if possible and protect yourself before attempting rescue.

All electricians and helpers should know how to apply artificial respiration.

If victim is not breathing, apply artificial respiration. When breathing starts, treat for shock and apply first aid. Victims of electrical accidents must receive medical attention.

Electrical fires should be fought using a CO<sub>2</sub> dry chemical extinguisher (NEVER use water or foam).

## 15.0 FALL PROTECTION, RESTRAINT, AND FALL ARRESTING DEVICES

**Objective** To outline requirements for protection against falling hazards and the proper use of safety belts, harnesses, lanyards, and lifelines.

**Application** All Definite Oil Field Services Ltd. personnel.

**Discussion** Managers or designated supervisor shall ensure that where it is possible for a worker to fall a vertical distance greater than 3.5m from a temporary work area or 1.2m from a permanent work area, the worker is protected from falling by one of the following:

- Guardrail around the work area.
- Safety net.
- Fall arresting device.
- A safety belt or harness securely attached to an anchor point in accordance with Provincial safety regulations.

### Fall Arresting Devices

Safety harness, lanyards or lifelines or any combination of the same may be required when working from an elevation which does not provide adequate protection, or when working in a confined space.

Where a lifeline or lanyard is used it must be continuously attended by another worker at ground level or at the entrance to a confined space.

A fall arrest system must be used:

- When a worker is more than 3.5 meters above the ground. Specifically when working on the storage tanks outside the railings.
- When work is being done over operating equipment or other hazards that could injure a worker.
- When working over water.

Safety harness, lanyards, lifelines or trail ropes are to be arranged such that all workers are supported independently and no person could fall more than 1.2 meters.

Fall arrest / restraint systems must be inspected / re-set only in accordance with the manufacturers and/or recommendations.

Each lifeline must be attached to a separate anchor and extend to the ground or a safe landing below the working level. Protective thimbles will be used to connect ropes or straps to eyes and rings. Safety belts are not required if a worker is on a properly constructed scaffold with guardrails and a toe board.

## 16.0 SCAFFOLDS

<b>Function</b>	To outline the requirements for the use of scaffolds in construction and plant or site operation.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Procedures</b>	<p>Scaffolds are elevated work platforms (usually temporary). They may be built up from the ground, attached to ladders or suspended from above.</p> <p>The following are guidelines for the safe use of scaffolds:</p> <ul style="list-style-type: none"> <li>- Make sure scaffolds are sturdy. They must be able to support four times the maximum intended load.</li> <li>- Use sufficient scaffold boards to ensure proper stage and footing. Do not use an unsafely constructed scaffold. See that scaffolding is provided with guard rails or safety lines.</li> <li>- Always clear work surfaces of snow, ice or other slippery materials.</li> <li>- Never overcrowd scaffolds with people, equipment or supplies.</li> <li>- Scaffolds must comply with OH&amp;S regulations. Regulations should be reviewed prior to erection of the scaffolding.</li> <li>- Never leave an opening unprotected. Provide a cover, guard-rail, or report the condition to your supervisor immediately.</li> <li>- Scaffolds shall be made with planks that are properly marked showing that they are specifically intended for scaffolds.</li> <li>- Make certain that any scaffold on which you are to work is a safe one. This caution refers to the scaffold as a whole and to all its component parts including scaffold planks.</li> <li>- All loose material on the scaffold must be secured to prevent it from falling.</li> <li>- All scaffold boards must have been tested before use and ends banded or bolted.</li> <li>- The footing or anchorage for scaffolds must be sound, rigid and capable of carrying the maximum intended load without displacement or settling.</li> <li>- Scaffold planks are to extend over their end supports not than fifteen centimetres or more than thirty centimetres and be secured from movement.</li> <li>- Personnel are not permitted to work on scaffolds during storms or high winds.</li> </ul>

## 17.0 STAIRWAYS AND WALKWAYS

<b>Function</b>	To provide requirements for construction of stairways and walkways.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Procedures</b>	<p>Stairways are provided for safety and convenience and must be used with caution:</p> <ul style="list-style-type: none"><li>- Never allow tools or materials to be left on a stairway.</li><li>- Look before you step to be sure the footing is clear.</li><li>- Don't carry an object that blocks your view.</li><li>- Walk - don't run - either up or down.</li><li>- Always use the handrail.</li></ul> <p>Stairways and walkways shall meet the following requirements:</p> <ul style="list-style-type: none"><li>- Stairways shall have a uniform combination of rise and tread dimensions.</li><li>- Stairways and walkways shall be kept free of any obstructions unless they are necessary to work that is actually being performed.</li><li>- Where slipping hazards exist on stairways and walkways, adequate provision to maintain traction must be in place.</li><li>- Stair railings are to be provided on the open side or sides of all exposed stairways.</li><li>- Handrails are to be provided on at least one side of all closed stairways.</li><li>- All stairways and walkways shall be provided with adequate lighting any time that they are in use.</li></ul>

## 18.0 SAFE WORK PERMITS (HOT AND COLD WORK)

<b>Function</b>	To provide procedures for the issuing of work permits to ensure that all persons involved in a specific job are aware of all the conditions and potential hazards.
<b>Application</b>	Safe work permits apply to all Definite Oil Field Services personnel and contractors.
<b>Procedures</b>	<p>Safe work permits must be issued for any work activities that fall outside of normal operating requirements. The need for "Cold Work" permits will be dictated by the size of the job and the number of persons involved in the work. <b>Any work performed by a contractor must be permitted.</b></p> <p>The work permit procedure specifies what checks are required and what procedures are to be used. The person issuing the permit must use due diligence to determine the types of hazards that may occur during the work task, and the person receiving the permit must read and acknowledge the contents of the permit, and additionally understand that the safe completion of a task is as much his responsibility as it is the responsibility of the person issuing the permit.</p>
<b>Hot Work Permits</b>	<p>A hot work permit will be issued when:</p> <ul style="list-style-type: none"> <li>- Danger from fire or explosion exists.</li> <li>- A worker is required to enter a confined space.</li> <li>- The atmosphere is, or could become, in excess of occupational exposure limits.</li> <li>- There is a danger from electricity.</li> <li>- Immediate access or egress is not guaranteed.</li> </ul>
<b>Cold Work Permits</b>	<p>A cold work permit will be issued to contractors when:</p> <ul style="list-style-type: none"> <li>- There is no danger from fire or explosion.</li> <li>- The atmosphere will remain normal.</li> <li>- Excavation or trenching will be carried out.</li> </ul> <p>A permit must always be issued if there is any question as to whether or not it is required.</p>

## 18.0 continued

Permits are issued as a priority safety checklist, a control over the work performed, a control over the number of persons at a hazardous location and as a means as communication.

It also underscores the importance of protecting personnel and equipment. It is important that tasks be completed on time, but control and safety must never be compromised.

Examples of hot and cold work permits (typical) can be found in the appendix.

**Responsibility**

The site supervisor or delegate can issue a safe work permit. Before any permit is issued it must clearly outline any special task requirements or specialized equipment necessary.

The "Issuer" will approve the permit only after being certain that all necessary safeguards and precautions have been taken to ensure that the work can be performed safely. The person receiving the permit will sign it only after being completely satisfied as to the contents of the permit, and is certain that the work can be completed safely. All concerns should be addressed at this time and prior to commencement of any work.

**Work Requiring  
Hot Work  
Permits**

Hot work permits are essential and must be issued when certain tasks are performed in potentially hazardous location. Hot work permits are required but not limited to the following tasks.

- Welding.
- Heating and cutting with torches.
- Using power chipping and grinding tools.
- Sandblasting operations.
- Hot tapping operations.
- Confined Space Entry
- Entry of non-routine vehicles or equipment with internal combustion engines onto the plant site.
- Photographic equipment use.
- Hammer wrench use.
- Stress relieving.
- Use of electric or electronic equipment that is not rated for the hazardous area.
- Servicing of electrical or electronic equipment.

It is essential that hot work permits are carefully prepared and that all tests and inspections are carried out as thoroughly as possible.

18.0 continued

**Safety  
Standby**

Some hot work may require a safety standby as described in Section 6.34 of this manual. If a standby person is required then this shall be noted on the permit and be identified in the site specific procedures.

**Permit  
Preparation**

Any area for which a hot work permit is being prepared must be inspected by the "Issuer" just prior to issuing the permit. The inspection must include but is not restricted to the following where applicable;

- All equipment to be worked on must be positively isolated from all sources of combustion, ignition and toxic material.
- No enclosed or confined area, vessel, line or equipment shall be considered safe for hot work until it has been completely purged and then tested with appropriate monitoring equipment to ensure that the space is "gas free". Vessels with linings or pipes with sleeves must be drilled to ensure that no gas or liquid hydrocarbons are trapped.
- All combustibles must be removed and securely covered.
- Fire retardant tarpaulins must be washed down or sanded and oily rags and garbage removed.
- Sewers must be flushed with water, and all vents and openings sealed.
- Valves cannot be assumed to be leak proof, bleed valves and pumps, lines and vessels must be plugged.
- All fire fighting equipment must be checked and be ready for use. The safety standby must know how to use the equipment.
- Walkways, ladders and approaches must be clear and accessible.
- Welding equipment must be in good condition and machinery and gas cylinders located at a safe distance from the hot work area.
- Any splices in cables or hoses must be properly made and insulated.
- Immediately prior to, and during, hot work the area must be monitored.

## 18.0 continued

**Validity**

Permits will be valid to the end of an operations shift or the completion of the work, whichever is sooner. Permits must be turned in at the end of the work, and any work extending beyond the end of a shift will require a new permit. Permits which are cancelled due to a change in conditions, cannot be reissued until the hazardous condition is controlled or eliminated.

**Completion**

All permits must upon completion of work be marked complete and "signed off". A task is not complete until the clean up has been done.



## 19.0 ZERO ENERGY STATE LOCKOUTS AND TAGGING

<b>Objective</b>	To provide procedures for locking, tagging and trying of equipment prior to shutdown for servicing, repairs, tests or adjustments.
<b>Application</b>	All areas where a source of energy could result in accidental movement of equipment or other energy source which could result in injury to persons, property or process.
<b>Discussion</b>	<p>Neither "DO NOT OPERATE" tag nor a lock alone constitutes a lock out device; a combination of a lock and tag is required.</p> <p>Authority to work on equipment must first be obtained from the site supervisor or his designate who will then take the following steps to ensure that the equipment or machinery is properly prepared for repair or maintenance.</p> <p>Shut down equipment as required.</p> <p>Place "DO NOT OPERATE" tags on all necessary controls.</p> <p>Install locks as required.</p> <p>Block in, de-pressure and purge as required.</p> <p>Lock control devices in the inoperative position and attach a supplemental tag describing the work to be done and the name of the worker who installed the lock out device. Only the worker who installed the device or the site supervisor may remove it.</p> <p>Ensure that all hazards, pressure conditions, tension or toxic substances have been removed or rendered safe.</p>
<b>Locks</b>	<p>Each trade or group of workers must install its own locks on the mechanical lock out device prior to the commencement of work. Such locks shall be removed only by the worker who installed the lockout device. These locks must be removed only by the trade or group of workers applying the lock or in the case of an emergency the supervisor or his designate.</p>
<b>Re-commissioning</b>	It is the responsibility of the site supervisor or his/her designate to ensure that all equipment and machinery is ready for service and all locks, blinds, tools, etc., have been removed.

## 20.0 COMMUNITY AFFAIRS PROGRAM

<b>Function</b>	To outline requirements for community affairs programs for operations near industrial or residential development.
<b>Application</b>	All Definite Oil Field Services Ltd. operations, including all employees and Representatives
<b>Procedures</b>	<p>All Divisions are required to develop a community affairs program. The program will provide Definite Oil Field Services with an opportunity to discuss its operations with neighbours / municipal officials and to become better informed of community related issues. It also provides an opportunity to educate neighbours about Definite Oil Field Services and to identify and respond to community issues before they become a regulatory concern. The program will focus on areas of sensitivity.</p> <p>Site specific programs will document the following:</p> <ul style="list-style-type: none"> <li>- Names and addresses of local contacts</li> <li>- Issues to be addressed</li> <li>- Feedback received</li> <li>- Follow up action if required</li> <li>- Date of interview</li> <li>- Records of open houses held, community donations, trade fairs attended etc.</li> </ul> <p>The following are guidelines for conduct to help preserve Definite Oil Field Services's public reputation:</p> <ul style="list-style-type: none"> <li>- When meeting people, identify yourself by name and company.</li> <li>- Invite and maintain contact with neighbouring landowners and local officials.</li> <li>- Inform local landowners, residents and civic officials about Definite Oil Field Services's activities (as appropriate).</li> <li>- Encourage staff to participate in local events.</li> <li>- Encourage staff to keep management informed of local events and issues that are relevant to company business.</li> <li>- Avoid actions that could provoke company complaints (such as speeding and odour complaints).</li> <li>- Respond to landowner and other complaints promptly and with conviction.</li> <li>- Retain a record of complaints and follow-up actions.</li> <li>- Maintain a good appearance of company equipment, vehicles, personal protective equipment, and merchandise bearing the Definite Oil Field Services's logo.</li> </ul>

## 21.0 EMISSION CONTROL

<b>Function</b>	To outline requirements and procedures for the control of atmospheric emissions.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Procedures</b>	It is necessary to control all atmospheric emissions so as to protect the health and well-being of employees, avoid nuisance odours to nearby residents, and avoid environmental impact.
<b>Sources</b>	Examples include leaking flanges, valves and packing glands, tank vents, thief hatches, vessel relief and other occasional sources. Any time that chemicals are handled open to the atmosphere, and especially at higher temperatures, there is a potential for atmospheric emissions being released.
<b>Responsibility</b>	All Managers and Owner Operators are responsible for ensuring that equipment is being operated in compliance with safe operating procedures as well as provincial regulations. All personnel are responsible for reporting emission problem areas and eliminating them whenever possible (i.e. tightening leaky flanges).
<b>Solutions</b>	Guidelines to control emissions include the following: <ul style="list-style-type: none"><li>- All piping, especially scrubber units and the associated piping are too checked regularly for leaks; repairs will be carried out promptly to minimize emissions.</li><li>- Dust from Division operation sites or access roads will be controlled by the proper use of dust suppressants.</li><li>- Hatches and lids on storage tanks will be kept closed whenever possible to reduce emissions.</li><li>- Heating of odour producing materials will be avoided unless necessary for processing.</li></ul>

## 22.0 NOISE CONTROL

<b>Function</b>	To outline requirements for the control of noise produced by operations in order to operate in compliance with provincial noise control regulations.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Purpose</b>	It is Definite Oil Field Services Ltd.'s aim to preserve the quality of life for neighbours of operations by complying with all applicable noise control regulations.
<b>Background</b>	<p>Noise is unwanted sound which can prevent people from performing at optimum levels and, at high levels, can cause hearing damage.</p> <p>The human ear can hear sound over a wide range of sound pressure levels. The unit of measurement commonly used is decibel (dB), which is usually expressed on the "A" scale which attempts to represent the way a human ear hears different sounds. In addition to the sound level measured at any instant in time, dBA, the average noise level over a six or 24 hour time period can be measured to provide an average noise level. This is called the equivalent sound level (Leq).</p>
<b>Impact Assessment</b>	A noise impact assessment must be completed for any new permanent operation or for modifications to existing permanent operation where there is a reasonable expectation of a continuous noise source. Provincial guidelines should be consulted for information on how to carry out such assessments.
<b>Noise Reduction</b>	Noise control implemented at the design stage is preferential to retrofitting existing operations. Therefore, noise concerns should be discussed with residents during the design, construction, and operation phases of an operation. Hearing protection that meets CSA requirements is necessary. See pg 327 for noise management

## 22.0 continued

**Regulations**

**British Columbia** - There is no pertinent legislation in place that governs noise pollution. Contact EMPR or BC Environment with regards to noise control.

**Saskatchewan** - Does not have any legislation concerning noise pollution, but Air Quality Section, Air and Land Protection Branch - EPS does have a role in noise control.

**Alberta** - EUB regulations govern noise pollution.

<u>Source</u>	<u>Sound Level (dBA)</u>
Quiet office	40
Quiet street	50
Noisy office	60
Highway traffic at 15m	75
Tractor at 15m	80 to 95
Freight train at 15m	95
Jet taking off at 600m	100
Air raid siren	130

**Noise Exposure**

Table 16.1 Occupational exposure limits for noise (appears a Table 1 of Schedule 3 of the OHS Code)

(dBA)	Exposure Level Duration
82	16 hours
83	12 hours and 41 minutes
84	10 hours and 41 minutes
85	8 hours
88	4 hours
91	2 hours
94	1 hour
97	30 minutes
100	15 minutes
103	8 minutes
106	4 minutes
109	2 minutes
112	56 seconds
115 and greater	0

For Noise management program please see pg. 327-328

## 23.0 CONTRACT REQUIREMENTS

**Objective** To outline the safety requirements to be included in all Definite Oil Field Services Trucking Ltd. contracts.

**Application** All Definite Oil Field Services personnel responsible for engaging contractors and

**Discussion** issuing contract documents.

**Contractors** Definite Oil Field Services Ltd. has a responsibility to ensure, where possible, the health and safety of all employers and workers on a worksite. By establishing worksite requirements in the contract documents, Definite Oil Field Services obligates its contractors to implement the required health and safety programs. Legislated responsibilities are the minimum acceptable standard for a contractor health and safety program.

**Sub Contractors** The Contractor has a responsibility to ensure, where reasonably practical, the health and safety of its employees, both contracted and permanent. The contractor shall maintain Workers Compensation Board coverage and insurance as required by the governing province and Definite Oil Field Services.

**Standard Sections for a Typical Contract** Sub Contractors have a responsibility for the health and safety of their employees, and compliance with relevant worksite safety programs and legislation. The sub-contractor shall maintain Workers Compensation Board coverage and insurance as required by the governing province and Definite Oil Field Services.

**Contractor** The Contractor shall take all reasonable steps to protect the health and safety of all workers, employees and third parties from injury or illness as a result of the work contracted. All equipment provided by the Contractor shall be maintained in good condition and shall meet all standards, regulations and legislation requirements. All work procedures shall be in accordance with Definite Oil Field Services Trucking Ltd. and legislated standards and only competent personnel shall be allowed to work on the job site.

The Contractor shall cease all work in the area of a defined health or safety hazard until it is resolved. The Contractor shall immediately remove from the worksite any Contractor or Sub Contractor employee who fails to comply with safety requirements.

23.0 continued

**Contractor  
Health & Safety  
Program**

The Definite Oil Field Services Ltd. Contractor health and safety program shall be included as part of the bid documents and the Contractor shall comply with all its requirements or with the requirements of another mutually acceptable health and safety program. The Contractor shall designate competent worksite personnel to be responsible for compliance with the program and all legislated requirements.

**Sub Contractors**

The Contractor shall include all provisions of this contract relating to health and safety in any agreement with a Sub Contractor.

**W.C.B. and  
Insurance**

The Contractor shall provide documentary evidence of an account in good standing with the applicable Workers Compensation Board provincial jurisdiction prior to the beginning of the work, and shall maintain this account in good standing throughout the duration of the contract. The Contractor is additionally responsible to ensure that all Sub Contractors comply with W.C.B. legislation. The contractor shall provide documentary evidence of insurance coverage. The Definite Oil Field Services purchaser shall ensure that the contractor and sub-contractor vendor status is verified.

**Company's  
Rights**

The Company may perform all site inspections and audits as necessary to satisfy itself that all health and safety requirements are being met. At no additional cost to the Company, the Company may require immediate removal or repair of any unsafe or defective equipment used in the performance of the work. The Company may also require the removal from the worksite of any persons failing to comply with health and safety requirements.

**Delays**

If the Contractor is responsible for a delay in the progress of the work due to an infraction of legislated or Company health and safety requirements the Contractor shall, without additional cost to the Company, work such overtime and acquire and use for the execution of the work such additional labour and equipment that may be necessary, in the opinion of the Definite Oil Field Services Ltd. representative, to avoid delay in the final completion of the work, or any operations thereof.

## 23.0 continued

Contractors execution of the work. The Contractor shall investigate such accidents or occurrences, prepare a written report and furnish such to Definite Oil Field Services Ltd. within five (5) working days. The Contractor shall furthermore assist in any investigation of accidents or injuries related thereto.

**Designated Safety Representative**

The Contractor shall identify to Definite Oil Field Services Ltd. the supervisory person who shall be responsible for health and safety programs at the worksite.

**Pre-job Meeting**

The Contractor shall attend, if necessary, a pre job meeting where the specific health and safety requirements for the job shall be discussed.

**Contractor / Visitor Orientations**

shall receive a

All contractors and visitors to a Definite Oil Field Services operation shall receive a site specific orientation from an authorized Definite Oil Field Services representative. The orientation will include contents of the Definite Oil Field Services Safety Handbook.

**Reporting Requirements**

The Contractor shall promptly report to Definite Oil Field Services Ltd. and all applicable legislated authorities having jurisdiction, any accident or occurrence resulting in injury, death or illness to any of its employees subcontractors or any other person at the worksite, arising from the



### 23.1 Preferred Contractors Requirements

<b>Function</b>	To outline requirements for selecting contractors.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Purpose</b>	To ensure contractors are competent and capable of the tasks required, the Company must verify the experience and training of each contractor and its employees before allowing them to work.
<b>W.C.B.</b>	Contractors must provide proof of an up to date W.C.B. account in order to work on a Company site.
<b>Insurance Liability</b>	Contractors must provide an insurance certificate verifying general liability insurance coverage. A minimum liability of \$1,000,000 must be covered.
<b>Tickets/ Certificates</b>	Contractors must hold up-to-date tickets and certificates required for the task at hand as well as any additional safety training which may be required.
<b>Experience/ History</b>	Contractors should be experienced in the work they are hired for and be able to supply references of past work for consultation. Contractors who have performed satisfactory work with Definite Oil Field Services previously should be preferentially used since they will already be familiar with some Definite Oil Field Services operating procedures and requirements.  Contractors who have a history of safety violations and/or poor quality work should not be used.
<b>Miscellaneous</b>	Contractors should not be hired on the basis of personal association (i.e. friends and/or relatives).  Preferential consideration should be given to contractors who have participated in the "Partnerships in Health and Safety" Program.

## 23.2 Preferred Contractors List

<b>Function</b>	To outline requirements and procedures for developing a site specific list of preferred contractors.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Procedures</b>	All Definite Oil Field Services Managers will develop a site specific list of preferred contractors to be kept on file. This will allow preferred contractors to be used even in times when the Manager is unavailable for consultation and will ensure only qualified and reliable contractors are used.

### 23.3 Contractor Handling

<b>Function</b>	To outline proper handling of Definite Oil Field Services Ltd. contractors in order to ensure the safety of all contractors and to ensure that contractors do not endanger the safety and/or security of the operation or its employees.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel responsible for dealing with contractors.
<b>Scope</b>	<p>A contractor is any individual or company hired under contract to provide services or supplies to a Definite Oil Field Services Ltd. operation. Since a contractor may be required to perform work directly within an operation or process area, stringent controls are needed.</p> <p>All contractors are responsible for working safely at an Definite Oil Field Services operation. Under the law, the company is regarded as the prime contractor, and as such, is responsible for the competence, activities and safety of its contractors.</p>
<b>Rules and Regulations</b>	<ol style="list-style-type: none"> <li>1) Contractors will comply with all Definite Oil Field Services safety policies as well as all site specific safety rules, and will review and sign the company safety handbook.</li> <li>2) Contractors are required to provide and wear clothing and P.P.E. required by Definite Oil Field Services Policy (6.29).</li> <li>3) No smoking outside designated smoking areas (i.e. lunchrooms).</li> <li>4) No running during operations, other than in an emergency situation.</li> <li>5) Maximum vehicle speed on a site is 10 km/hr (unless posted otherwise).</li> <li>6) Before being allowed to commence work a contractor must obtain the required safe work permits for Hot/Cold Work (6.32).</li> <li>7) Before being allowed to commence work within a facility a contractor must undergo a safety orientation (8.6).</li> <li>8) All contractors must sign in and out of the visitor log sheets.</li> </ol>

23.3 continued

**Employee  
Awareness**

Operation personnel will be informed of the presence of contractors on site as well as the nature of the work being performed so as to avoid accidents caused by unawareness (i.e. vehicle collisions, handling of flammable materials near welding, etc.).

## 23.4 Visitor Handling Procedures

<b>Function</b>	To outline proper handling of visitors to an Definite Oil Field Services operation, in order to ensure the safety of all visitors and to ensure that visitors do not endanger the safety and/or security of an operation or its employees.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Procedure</b>	<p>A visitor to an Definite Oil Field Services Ltd. operation is anyone who is not:</p> <ol style="list-style-type: none"> <li>1) An Definite Oil Field Services employee within a given operation.</li> <li>2) A contract employee providing regular service to the operation.</li> <li>3) Contractors required for specific jobs (e.g. high pressure cleaning, turnaround maintenance, cranes, backhoes, etc.). This type of contractor must be guided by more stringent controls than the casual visitor because they are performing work within a facility.</li> </ol>
<b>Rules and Regulations</b>	<ol style="list-style-type: none"> <li>1) Visitors having beards or excess facial hair will not be allowed in the area of operation without approval of the Manager or site supervisor. Such visitors will however be allowed in all safe areas. Example; offices</li> <li>2) Visitors are required to wear clothing and P.P.E. required by Definite Oil Field Services Policy (6.29).</li> <li>3) No ignition devices (matches, lighters, flash cameras) are to be taken into an operations area. Such devices are to be left in the visitors car or at the office.</li> <li>4) No smoking outside of designated smoking areas (i.e. lunchrooms).</li> <li>5) No running within an Definite Oil Field Services operation other than in the event of an emergency.</li> <li>6) Maximum vehicle speed is 10 km/hr (unless posted otherwise).</li> <li>7) If the emergency alarm sounds proceed immediately to the safe meeting / muster point as designated during the safety orientation.</li> <li>8) Visitors in an operations area must be accompanied by a Definite Oil Field Services representative at all times.</li> </ol>

23.4 continued

**Entry Guidelines**

## A) Regular Office Hours

- 1) Visitors shall stop at the main office and be given a safety orientation (Section 8.6).
- 2) Visitors' vehicles shall be parked in the parking lot in the designated parking area. Back in parking only.
- 3) All visitors admitted must sign in and out of the visitor log sheets.

## B) Non-Regular Office Hours

- 1) All visitors must contact an Definite Oil Field Services representative and wait prior to entering a site.
- 2) The representative contacted will decide whether the visitor will be allowed admission or requested to return during office hours.
- 3) Visitor's vehicles shall be parked in the parking lot in the designated parking area. Back in parking only.
- 4) All visitors admitted during off-hours must be accompanied by the Definite Oil Field Services representative at all times.
- 5) All visitors admitted during off-hours must sign in and out of the visitor log sheets.

**Tours**

Definite Oil Field Services personnel will be made aware of visitors / tours in the operations area so as to eliminate hazards caused by being unaware of a tours' presence. This can also be helpful in preserving the company's image.

### 23.5 Visitor and Contractor Safety Orientations

<b>Function</b>	To outline procedures for proper safety orientation of visitors and contractors.
<b>Application</b>	All visitors and contractors to Definite Oil Field Services Ltd. operations.
<b>Procedures</b>	All visitors and contractors to an operation must be given a safety orientation prior to their first time entering an operation. Should safety conditions or operations within the operation change then visitors and contractors should be re-oriented to the new safety concerns.
<b>Orientation</b>	<p>The following steps must be followed to ensure a visitor or contractor receives a proper safety orientation:</p> <ol style="list-style-type: none"> <li>1) Upon first visit to an Definite Oil Field Services operation the visitor/contractor is required to read and sign the Definite Oil Field Services Safety Handbook. A safety orientation sticker is issued and is applied to the visitor/contractors hardhat, to indicate that an orientation has been conducted.</li> <li>2) The visitor/contractor should be briefed on emergency response procedures and the muster point area(s) that they should proceed to in the case of an emergency should be made clear. Alarm systems should be identified.</li> <li>3) Any site specific safety rules should be discussed.</li> <li>4) Emergency equipment and supplies (i.e. eyewashes, fire extinguishers, etc.) should be pointed out.</li> <li>5) Any existing potential hazards should be pointed out for the areas that a visitor/contractor will enter.</li> <li>6) The visitor/contractor should be loaned and made to wear required personal protective equipment prior to entering an Definite Oil Field Services operation if such equipment is not possessed by the visitor/contractor.</li> <li>7) Any other relevant information on policies dealing specifically with work to be done (in the case of a contractor) should be made clear.</li> <li>8) Contractors should be informed of the site specific piping identification system.</li> </ol>

## 24.0 PRE-JOB PLANNING MEETINGS

<b>Function</b>	To outline requirements for safety and planning meetings prior to commencing a job.
<b>Application</b>	All jobs to be conducted at an Definite Oil Field Services operation that are outside of the regular daily duties.
<b>Procedures</b>	<p>Pre-job safety/planning meetings will be held prior to the commencement of any new, unfamiliar, non-routine or potentially hazardous task. The contents of this meeting shall include, but will not be confined to:</p> <ul style="list-style-type: none"> <li>➤ Method of performing the tasks.</li> <li>➤ General Safety Requirements.</li> <li>➤ Hazards likely to be encountered.</li> <li>➤ Procedures to control the hazards.</li> <li>➤ Contents and type of work permit.</li> <li>➤ Rescue procedures.</li> <li>➤ Communications and equipment requirements.</li> </ul>
<b>Record Keeping</b>	Minutes of the pre-job safety meetings must be taken and a signed roster of all persons involved in the work task should be kept on file at the Branch (in the daily log book) and a copy given to contractors taking part in the meeting for their own records.
<b>Tailgate Meetings</b>	"Tailgate" talks with the local supervisor to discuss safety related problems and concerns after the work has commenced are extremely valuable and are encouraged.



**Pre-Job Safety Meeting Report**

Job Description \_\_\_\_\_

Meeting # \_\_\_\_\_ Site Location \_\_\_\_\_

**Equipment & Job Requirements**




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Written Job Procedures Available.

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Hard Hat   | <input type="checkbox"/> Approved Lighting        |   |
| <input type="checkbox"/> Eye Protection                                     | <input type="checkbox"/> O <sub>2</sub> Detectors | <input type="checkbox"/> Non Sparking Tools |
| <b>Workers have demonstrated the proper use of the following equipment:</b> |   |   |
| <input type="checkbox"/> Welding Protection                                 | <input type="checkbox"/> Respiratory Protection   | <input type="checkbox"/> Facial Hair        |
| <input type="checkbox"/> Hearing Protection                                 | <input type="checkbox"/> First Aid Equipment      | <input type="checkbox"/> Communications     |
| <input type="checkbox"/> Safety Boots                                       | <input type="checkbox"/> Fire Control Equipment   |   |
| <input type="checkbox"/> Lanyard & Lifelines                                | <input type="checkbox"/> Safety Containers        |   |
| <input type="checkbox"/> Gas Detectors                                      | <input type="checkbox"/> Signs & Barricades       |   |
- 
- 
-

**25.0 ALARMS AND INITIATION OF EMERGENCY RESPONSE PLANS**

**Function** To outline requirements for operation emergency alarms, emergency shut-down switches and initiation of the site specific Emergency Response Plans.

**Application** All Definite Oil Field Services Ltd. operations.

**Procedures** All operations are required to have alarm systems in place which are able to be heard and recognized from all work sites by all persons on site. Alarms should be able to be triggered from accessible locations throughout the operation as well as from the office.

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**Emergency Shut Down Switches** All facilities should be equipped with emergency shut down switches (ESD) to allow equipment to be powered down in the event of an emergency. These switches should be tied in with the alarm system so as to sound the alarm when triggered.

**Initiation** An emergency is defined as any event that calls for immediate special action to prevent or minimize danger to life, property or the environment. Emergency response plans should be initiated for any emergency. If there is any doubt as to whether or not there is an emergency, then initiate the emergency response plan.

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Specific instructions given to workers (list)

\_\_\_\_\_  
 Contractor Supervisor Signature \_\_\_\_\_  
 Supervisor

## 25.1 Required First Aid Supplies and Equipment

<b>Function</b>	To outline the requirements for the provision of first aid equipment, and the training of employees or representatives to ensure that adequate first aid treatment is available.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Qualifications</b>	<p>All workers and representatives are required to take the St. John Ambulance or the Red Cross Standard First Aid course in addition to the Canadian Heart Foundation Cardiopulmonary Resuscitation course. The content of the course must conform to Occupational Health and Safety requirements.</p> <p>A trained first aider should be able to render assistance to an injured worker without reliance on formal pre-packaged first aid supplies.</p>
<b>Emergency Conveyance</b>	Definite Oil Field Services Ltd. must ensure that emergency conveyance is available before non routine work commences at a worksite. If local ambulance service is not available or could not be called to the worksite then a suitable conveyance must be arranged at the worksite and this can be designated as the emergency conveyance. Air ambulance service can be substituted for local service if response time is good and service is guaranteed.
<b>Equipment</b>	Provisions must be made if specialized equipment is needed to extricate an injured worker from an inaccessible workplace (i.e. shafts, tunnels, vessels, etc.).
<b>First Aid Supplies</b>	<p>The following first aid supplies or equivalent substitutes will be available at all times on a work site where there are five or more workers present on any shift. They must be replenished within 24 hours of providing first aid care which depletes the supply below the minimum level.</p> <ul style="list-style-type: none"> <li>4 - gauze bandage rolls 2.5 cm x 4.5 cm</li> <li>4 - gauze bandage roll 5 cm x 4.5 cm</li> <li>4 - gauze bandage roll 10 cm x 4.5 cm</li> <li>10 - gauze pads 7.5 cm x 12 cm</li> <li>10 - 10 eye pads</li> <li>4 - tensor bandages 5 cm x 4.5 m</li> <li>4 - tensor bandages 7.5 cm x 4.5 m</li> <li>10 - triangular bandages</li> <li>20 - safety pins</li> <li>25 - adhesive bandages of assorted sizes</li> <li>25 - antiseptic swabs</li> <li>2 - adhesive tape rolls 1.2 cm x 4.5 m</li> </ul>

## 25.1 continued

To outline the requirements for the provision and placement of eyewash stations and / or deluge showers.

All Definite Oil Field Services Ltd. operations where contamination of personnel by chemicals or fire is possible.

Eyewash stations and deluge showers if required must be placed at or close to high risk areas, determined at the time of construction or during a safety / loss audit. It is recommended to place the equipment 3 - 10 m (10' - 30') from the high risk area in such a location as to protect it from chemical or heat exposure.

The safety shower must meet the requirements of A.N.S.i. standard Z358.1 - 1981, and must supply warm water (15 degrees - 35 degrees C) at a rate of at least 114 L/min and the eyewash station at a rate of at least 11.4 L/min for at least 15 minutes.

Where water systems are not practical, approved portable eyewash stations are recommended, and as a minimum operators should carry with them at least one litre of fresh water in case of an emergency when no other equipment is available.

## 25.2 Eyewash Stations / Deluge Showers

<b>Function</b>	2 - adhesive tape rolls 2.5 cm x 4.5 m 1 - pair of scissors 1 - pair of forceps
<b>Application</b>	10 - pairs of disposable latex gloves 2 - blankets
<b>Procedures</b>	First Aid Manual
<b>Location of Equipment</b>	Emergency Telephone Numbers Injury and first Aid Treatment Record Pencil and Paper Inventory of First Aid Supplies
<b>Volumes of Water Required</b>	A stretcher and Back Board should also be available on site. All first aid situations must be reported back to the designated Safety personal and or management.

### Inspection and Maintenance

All inspections and maintenance must be carried out in accordance with manufacturers specifications, and must be carried out by a trained person. The following are the minimum required inspections, which must also be recorded and kept on file.

Monthly Inspections:

- All units must be in their designated location and clearly visible with specific locations denoted on a plot plan.
- All units must be checked for operational reliability (i.e. properly sealed, filled, nozzles unobstructed, easy access, etc.).
- All units must be clean and free of dust.

Any equipment found to be defective will be immediately removed from service and shall be repaired or replaced.

### 25.3 Fire Fighting Equipment

<b>Function</b>	To outline the equipment necessary for reliable fire suppression, and the types of protection necessary in specific work areas relative to their classification. In addition to outline the method to inspect the equipment to ensure correct maintenance and function at all times.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel and field locations.
<b>Procedures</b>	All Definite Oil Field Services Ltd. personnel and representatives are encouraged to have the basic firefighting or greater.
<b>Standard Equipment</b>	The extinguisher of choice shall be a 30 lb hand portable, Purple "K" or equivalent shall be the dry powder medium of choice. All units shall have an expellant cartridge of nitrogen for low temperatures. Equipment that does not comply with this standard shall be replaced as soon as possible.
<b>Classes of Fire</b>	<p>Class "A" fires - usually occurs in ordinary combustible material such as wood, paper or cloth. The most common extinguishing agents for this class are water or A.B.C. dry chemical. Extinguishing equipment for this type of fire will be identified with a letter "A" in a green triangle.</p> <p>Class "B" fires - this type of fire is usually associated with the vapour / air combustion over the surface of a flammable liquid, (i.e. grease, oil or gasoline). Extinguishing agents commonly used for this class are water mist, foam, CO. or B.C. dry chemical. Extinguishing equipment for this type of fire will be identified with the letter "B" in a red square.</p> <p>Class "C" fires - this fire type occurs in electrical equipment and for this reason non - conducting extinguishing agents must be used. Carbon Dioxide (CO<sub>2</sub>) and Halon are the most commonly used agents. Dry chemical agents can be used but the need for extensive clean up and repair must be borne in mind. Extinguishing equipment for this type of fire will be identified with the letter "C" in a blue circle.</p> <p>Class "D" fires - this type of fire occurs in combustible material / metal such as magnesium, titanium and sodium. Specialized extinguishing agents such as MET -L - X and special equipment have been developed for this application. Extinguishing equipment for this type of fire will be identified with the letter "D" on a yellow star.</p> <p>In accordance with the protocols from the 1988 Montreal Conference on C.F.C's, it is Definite Oil Field Services's policy not to discharge halon fire extinguishers for any reason other than fire fighting in an emergency situation. Any halon extinguisher so requiring shall be returned to the manufacturer for recharging and testing.</p>

25.3 continued

**Location of Extinguishers**

The placement of extinguishers shall be in accordance with both local and national fire protection regulations (N.F.P.A.). The location will be determined at the time of construction or as required by a safety/loss control audit. A guideline for the placement follows.

Model	Agent	Location
<b>Class A Locations</b>		
General C.TCP-5J (or equivalent)	Triplex	Company Vehicles Offices Warehouses
<b>Class B Locations</b>		
General KGC-30 (or equivalent) Portable	Purple K	Field Trucks Field Facilities Maintenance Area
<b>Class C Locations</b>		
General C-10RH [or equivalent)	C02	Electrical
General C-GH-6J	Halon	Electrical Control Panels Computer Installations

**Recharge**

Extinguishers must be recharged after use, and only with the manufacturers recommended chemical. Chemicals must never be mixed as this can damage the extinguisher and create a safety hazard. External cartridge type extinguishers must be recharged by a trained person.

**Inspection and Maintenance**

All inspections and maintenance must be carried out in accordance with manufacturer's specifications, and must be carried out by a trained person. The following are the minimum required inspections, which must also be recorded and kept on file.

Any equipment found to be defective will be immediately removed from service and shall be repaired or replaced.

**Halon**

Monthly Inspections:

- All units must be in their designated location and clearly visible. Specific locations within a facility should be designated by number and that number shown on the extinguisher.
- All units must be checked for operational reliability (i.e. seals in place, nozzles and hoses unobstructed, easy access, etc.).

### Annual Inspections (Portable Units)

- 1) Cartridges on hand portable units must be removed and weighed. The weight must be within one half ounce of the weight stamped on the cartridge neck.
- 2) All dry chemical units must have the hose removed and inspected for signs of deterioration. Air must be blown through the hose to ensure that it is clear and the nozzle shut off valve is functional.
- 3) The dry chemical nozzle must be checked, and lubricated with silicon to ensure that the moving parts operate freely. Ensure the nozzle is clear of obstructions (paper or small stones).
- 4) All extinguishers must be checked to ensure that the chemical contents match the extinguisher classification on the nameplate and that the extinguisher is properly designed for the hazard location. The chemical in the extinguisher should be above the expellant tube and checked to make sure that no "caking" has occurred.

If "caking" is present then a piece of the caked chemical should be dropped onto a hard surface from about six inches. If the cake does not break up completely then the chemical must be replaced.

- 5) All cartridge dry chemical must be checked to ensure the following:
  - The cartridge receiver gasket is in good condition and properly lubricated and the safety relief pin is clear.
  - The fill cap gaskets are in good condition and properly lubricated. The fill cap indicator pin must be lubricated to ensure free movement. All relief vent grooves must be clean and free of obstruction.
  - The hose must be sealed in place with a visual inspection seal to prevent accidental puncturing of the cartridge.



All units must be checked annually to ensure compliance with the applicable hydrostatic testing requirements. All testing shall be performed by a qualified outside agency, and the frequency is shown in this table.

All units must be properly mounted and protected from the weather as much as possible. Each unit must be checked at least annually for corrosion or dents, and all surfaces requiring painting must be painted. Units that are damaged or dented must be removed from service and replaced with a serviceable unit.

All hydrostatic testing, cartridge filling and gas tube replacement must be performed by a qualified outside agency.

**Corrosion  
Damage**

All routine inspections or maintenance shall be performed by trained Definite Oil Field Services personnel or representative in accordance with manufacturers specifications and the guidelines set out in this section.

**Servicing**

All particulars of the maintenance and inspection must be recorded and a tag attached to the extinguisher. In addition this information must be documented and kept on file.

The effectiveness of fire fighting equipment may be increased as much as 40 when used by a trained employee or representative. Regular fire fighting training is a requirement under Occupational Health and Safety legislation, and is in Definite Oil Field Services Ltd.'s best interest to prevent loss to people, property and process.

**Fire Fighting  
Training**

Type of Unit	Cartridge (years)	Shell (years)	Cylinder (years)
Hand Portable (external cartridge)	10	12	N/A
CO <sub>2</sub>	N/A	5	N/A
Halon	N/A	12	N/A

## 25.4 Fire Pre-Plans

### Hydrostatic Function Testing Application

### Procedures

To outline requirements and procedures for developing fire pre-plans.

All Definite Oil Field Services Ltd. operations.

In addition to Emergency Response Plans for implementation in the event of a fire, fire pre-plans are a useful tool for mitigating the effects of a fire. Fire pre-plans serve as an information source for emergency response crews (i.e. fire department) in the event of an emergency. Fire pre-plans are essential for fires that occur when no employees are on site or when employees are disoriented or incapable of supplying information about hazards and emergency equipment.

All operations must have a fire pre-plan which consists of an up-to-date site plan (if applicable) which has hazard and emergency equipment locations marked on it as well as emergency shutdowns and gas shut-off valves. A list of items that should be marked on the fire pre-plan is included at the end of this section (12.5) along with appropriate symbols to be used in developing the plan.

### Lock Box

The completed fire pre-plan is to be kept in a locked box at the approach road to the operation with a key given to the local fire department and the Branch Manager. The fire pre-plan should be protected from the weather (i.e. laminated).

Branch Managers will ensure that fire pre-plans are in place and up-to-date for all operations.

## 25.5 Drills and Exercises

### Function

### Application

### Procedures

### Responsibility And Frequency Responsibility

Safety Managers and Representatives are responsible for ensuring that emergency drills and exercises are carried out and that their workers and representatives are capable and prepared to perform satisfactorily. Mock exercises are to be held at least two times a year.

In order to carry out a mock emergency, either the Safety Manager or a worker / representative appointed by him / her will initiate a drill or exercise.

Drills and exercises can be either discussed prior to initiation or done in a surprise manner at the Manager's discretion.

Mock emergency situations will be chosen so as to address emergency response concerns at a facility. The following are suggestions for mock emergency situations:

- Fire / explosion and evacuation drills.
- Serious injury and evacuation response drills.
- SCBA practice drills.
- H2S release and man down drills.
- Environmental spills practices.
- Confined space rescue.
- Bomb threat and security breach.

25.5 continued

**Reporting**

To outline the requirements for holding drills and exercises to test emergency preparedness and response.

All Definite Oil Field Services Ltd. operations.

A valuable tool for evaluating emergency preparedness and response, in order to identify deficiencies, is the use of mock emergencies. Through holding mock emergencies, problems that may arise during a real emergency can be identified and mitigated before they can lead to damage or injury.

In emergencies, response time is critical. The use of drills and exercises can help make workers quicker to respond through familiarity with procedures. Having to stop and figure out what to do in an emergency can cost valuable time which could make it too late to effectively deal with an emergency or to save lives.

Workers and representatives that are well prepared for emergencies that may arise are much more effective than workers and representatives who are not familiar with a situation. Well prepared employees and representatives are less likely to panic and are better equipped to evacuate properly or attempt a rescue.

Post-mock emergency meetings will be held in order to determine deficiencies and concerns regarding emergency preparedness and response.

Mock emergency reports must be filled out following all drills and exercises. Reports will have the following form:

**Date:** Date mock emergency was held.

**Nature of Occurrence:** Situation the drill was simulating (i.e. small explosion and tank fire).

**Personnel on Site:** List of personnel on site.

**Vehicles:** List of company, employee, contractor and visitor vehicles on site.

**Location of Emergency:** Location on site where mock emergency happened.

**Simulation of Events:** Summary of events of mock emergency with times denoted in chronological order.

**Conclusions:** List of items identified as concerns during post-mock emergency meeting.

**Recommendations:** List of recommendations for mitigation of concerns outlined in post-mock emergency meeting.

Reports will be submitted within one week of the mock emergency to Head Office and a copy must be maintained on site.

**Drills and Exercises**

25.5 continued

**Evacuation**

The senior Definite Oil Field Services Ltd. representative on site will have the responsibility to commence evacuation of the area identified in the Local Emergency Procedures Guide. If possible the evacuation should be coordinated with the head office support group.

**Evacuation of Injured**

The senior Definite Oil Field Services Ltd. representative on site will organize evacuation of all injured worker / representatives involved in incident.

**Next of Kin Notification**

An Definite Oil Field Services employee or representative shall accompany each

individual being transported at all times.

The next of kin of a seriously injured employee must be notified at the earliest possible moment. This notification must be made by an appropriate authority such as the police or the senior Definite Oil Field Services

Trucking Ltd. representative at the scene.

In the case of a serious accident notification should be as follows:

"(verify contact) this is (identify caller), a serious accident has occurred at (location) and your (relationship), (victims name) has been injured and taken to (name) hospital at (location) for treatment. We will be sure to keep you informed of further details as we receive them"

**Preservation of Evidence**

In the case of a fatality, certification of death by a doctor or the police must precede notification, where possible notification should be made in person and if possible in the presence of a worker known to the family, and / or the police. If the next of kin does not reside in the area arrangements should be made through the Emergency Response Director for appropriate notification.

Should the injury or a fatality occur it is essential that the same contract be authorized by the Director, to ensure that the next of kin of their investigate, along with the appropriate competent authority, that Definite Oil Field Services Ltd. personnel are required in order to advise in order that the loss of life or property victims can be released.

Where loss of Company property or loss of revenue has occurred, evidence should not be disturbed until permitted by the Company insurance adjusters.

## 26.0 INCIDENT REPORTING REQUIREMENTS

### Function

### Application

### Procedures

#### Incidents

All incidents of a significant nature must be reported so that the circumstances surrounding the event will be communicated, causation identified, mitigative measures implemented and further reoccurrence minimized.

Incidents can be divided into the following categories: near misses and accidents. A near miss is any event where no injury or loss occurred from an unexpected, unintentional, and undesirable occurrence however, injury or loss could have resulted. An accident is any event involving injury, spill, property damage, loss to process or death. All incidents must be rated by their potential severity (major, serious, or minor) on the incident report.

#### Qualifying and Reporting

Level I incidents typically involve incidents where no danger exists outside of company or contractor property, and where the situation can be handled entirely by Definite Oil Field Services workers. Level I incidents may include but are not limited to on-site spills, on-site emissions, property damage (> \$1,000), process operational upsets (loss to process), lost time injuries, restricted work injuries, medical treatment injuries, vehicle accidents, and vehicle violations (transport related). Level I incidents must be reported to Head Office within 24 hours or next working day, using the Definite Oil Field Services incident report form. Near misses are reported if the Manager or person in charge believes the severity potential was major or serious.

Level II incidents typically involve situations where there is no immediate danger to off-site property or the environment, but the potential exists for the situation to effect property or the environment beyond site limits. Local support services (local fire departments, police and other emergency groups) must be alerted to these incidents as required, and kept informed of the situation. Level II incidents include: major accident - no spill or injury; major on-site spill; major property damage; major plant upset or regulatory investigation, regulatory inspections (major non-compliance), lost time injuries, restricted work injuries, and medical treatment injuries.

## 26.0 continued

To outline the requirements for qualifying and reporting incidents.

All Definite Oil Field Services Ltd. workers.

Level III incidents usually involve situations where safe operating control has been lost, resulting in or potentially resulting in fatalities; serious injury to Definite Oil Field Services personnel, contractors or the public; serious property damage; serious impacts to the environment; or major impact to surrounding communities. Level III incidents may include but are not limited to: major injury or death of an employee(s) or contractors; off-site spills; off-site emissions; vehicle accidents involving injury or spill; major fire or explosion; or major plant upsets-unusual occurrences. All level III incidents must be reported immediately by telephone and / fax. In the case of Level III incidents, Emergency Response Plans may require implementation.

**Information**

In the event of serious or catastrophic situations which occur after normal working hours, appropriate senior management must be contacted by telephone.

To ensure that incident reporting is consistent, the following information must be provided in the incident report.

- Names of individuals directly / indirectly involved: Definite Oil Field Services and third party.
- Location, date and time of the incident.
- Name of the injured employee(s), description of the illness or injury.
- Description of the events leading to the incident.
- Description of the damage to Definite Oil Field Services or third party property.
- Description of the spill / volume; air emission / duration.
- Description of the accident or incident.
- Definite Oil Field Services personnel informed.

If required the following must be notified:

- Police; all emergency situations.
- Regulatory; reportable spills and OH&S incidents.
- Ambulance; as required for emergency situations.

26.0 continued

**Incident Review by Branches**

The Head Office will provide Branch Operations with monthly incident summaries. This information must be formally discussed at branch level safety meetings and safety steering committee meetings. Discussion of this information will increase safety awareness and minimize the potential for similar incidents to occur at other Definite Oil Field Services operations.

**Regulatory Spill Reporting Requirements**

Reports to the Regulatory Agencies must be made by the Environment & Safety Manager.

**Alberta Energy & Utilities Board**

- Unrefined product, on lease greater than 2m3.
- Refined product, on lease causing or having the potential to cause an adverse environmental effect / spill volumes which exceed reportable quantities. (Part I, section 10)
- All off-site spills.
- In the case of a Transport Division spill, one call to the EUB will satisfy AEP reporting requirements.

**Alberta Environmental Protection**

- All spills (refined / unrefined product) either on the lease or off-site which have caused, are causing or may cause an adverse environmental effect / spill volumes which exceed certain quantities. (See Part I, section 10)

**Saskatchewan Environment Resource Management**

- All spills either on-site or off lease, exceeding the reportable quantities outlined in Part I, section 10.

**British Columbia Ministry Environment, Lands & Parks**

- Refined product; on and off-site which exceed the reportable quantities. (Part I, section 10)
- Waste oil greater than 100 litres
- Flammable liquids greater than 100 litres.
- Corrosive liquids greater than 5 litres.
- Flammable solids greater than 25 kg.

**Notifications**



26.0 continued

**British Columbia Ministry Energy,  
Mines & Petroleum Resources**

- Unrefined product on lease greater than 100 litres.
- Unrefined product; all off-site spills.
- Produced water on lease greater than 2 m3.
- Produced water, all off-site releases.

**Dangerous Goods in Transport**

- Refined product; greater than 200 litres flammable liquids.
- Refined product; greater than 25 kg flammable solids.

**Occupational Health  
And Safety Reporting  
Requirements**

Reports to the Regulatory Agencies must be made by the Environment & Safety Manager.

WCB forms must be completed and submitted to the appropriate provincial agency for all medical treatment and lost time injuries and / or work related illnesses.

All incidents involving: death; an incident where the employee is hospitalized for more than 2 days; an unplanned explosion or fire which has caused, is causing or has the potential cause a serious injury or accident; and the collapse of a building or structure are incidents reportable to Alberta Occupational Health & Safety.

Incidents involving: death; critical injuries with risk of death; major structural failure; major release of chemicals or toxic substances, and blasting must be reported to BC WCB if the incident resulted in medical treatment by a physician or did not cause an injury a potential for causing an injury.

26.0 continued

**Saskatchewan  
Occupational  
Health & Safety**

Incidents involving: death; serious injury; and / or dangerous occurrences must be reported to Saskatchewan OH&S.

Serious injury is defined as:

- A fracture of the skull, spine, pelvis, femur, humerus, fibula, tibia, radius or ulna;
- An amputation of a major part of a hand or foot;
- The permanent loss of the sight of an eye;
- Any serious internal haemorrhage;
- Any burn that is caused by electricity and requires medical attention;
- Any third degree burns;
- Any injury caused directly or indirectly by explosives;
- Any asphyxiation or poisoning that causes a partial or total loss of physical control.

**Workers  
Compensation  
Board**

A dangerous occurrence is defined as:

- The structural failure of a building, structure, temporary false work or concrete formwork;
- Contact with an un-insulated electrical conductor by hoisting or excavating equipment, by any vehicle or by any load associated with that equipment or vehicle;

**Alberta  
Occupational  
Health & Safety**

- The structural failure of all or part of temporary or permanent supports for a shaft, tunnel, caisson, coffer dam, trench or excavation;

**British Columbia  
Workers  
Compensation  
Board**

- The bursting of a grindstone or grinding wheel;
- An uncontrolled spill or escape of a toxic, corrosive or explosive substance that has or may have seriously affected the health and safety of workers;
- Any premature detonation or uncontrolled use of explosives; and
- The failure of a support system of any suspended platform.

## 26.1 Incident Investigation Guidelines & Reports

**Function** To outline requirements and procedures for incident investigations.

**Application** All Definite Oil Field Services Ltd. personnel.

**Procedures** Incident investigation determines why accidents occur and how to prevent their reoccurrence. The investigation provides management with information that can be used to assess the appropriateness of work procedures, standards, training programs, communication systems / equipment.

Management relies on the accuracy of the information in all respects in making follow-up decisions.

Investigation reports must be written using the established corporate report format. Utilizing this format will provide consistency in the data record and ensure that critical information is documented. Investigation reports must be completed and submitted to Head Office within one week following the Incident. All investigation reports sent to Head Office must be directed to the Manager of Environment & Safety.

When an incident occurs, the first priority must be to take care of the injured worker / contain the spill, prevent further loss, remove all potential hazards and to report the incident. Following this, the investigation should take place. The shorter the time interval between the incident and the investigation the more vivid the recollection of details, observers will not have had time to have their opinions biased by discussion with others, evidence will be preserved and equally important, a quick investigation is an opportunity for management to demonstrate their commitment to the risk management program.

### Incidents Requiring Investigation

The following incidents must be investigated:

- Spills which exceed the Definite Oil Field Services and/or regulatory reporting requirement.
- Personal injuries (MTI, RWI, LTI).
- Near misses (of a high severity potential).
- Odour complaints.
- Regulatory investigations.
- Vehicle accidents.
- Property damage exceeding \$1,000.00.
- Level III incidents.

26.1 continued

**Investigation Team**

Investigations will be conducted by an Investigations Team. The severity of the incident will determine the team make-up. The Environmental and Safety Manager will be responsible to determine the make-up of the investigation team for Group 3 incidents (refer to Table 1). The team will also be required to write the investigation report.

**TABLE I**

INCIDENT	TEAM MAKE-UP
Internal Reportable Spill Odour Complaints Vehicle accidents, no injuries MTI, RWI Injuries	Branch Manager, Employee(s) and/or Owner Operator
Regulatory Reportable Spill Odour Complaints involving Regulators Property Damage > \$1,000.00	Branch Manager, Employee(s), Owner Operator, Environment & Safety Manager and/or District Manager
LTI Injuries Near Misses (of a high severity potential) Plant Upsets (of a substantive nature) Regulatory Investigations Vehicle Accidents Involving Injury All Level III Incidents	Branch Manager, Employee(s) Owner Operator, District Manager, Environment & Safety Manager and/or Operations Manager

Near misses of a major or serious nature must be investigated.

**Investigation Report**

Investigation reports are formal records which document the Corporation's response to incidents. Therefore it is imperative that Definite Oil Field Services maintain high Incident Investigation standards.

The detailed report must include the following headings:

**Incident Particulars**

- Incident date.
- Incident reported.
- Nature of incident.
- Operators on duty / operators involved in the incident.
- Injuries sustained.
- Agencies notified.
- Estimate of property damage.
- Estimate of spill clean-up cost.

Spill clean-up estimates should include: internal labour costs; third party costs; facility down time - loss to process; property damage; loss of product; investigation time; and other relevant factors.

Estimate of property damage should include: cost to repair and / or replace property and interim rental costs where applicable.

**Investigation Team**

Make up of the team members.

**Investigation**

This brief summary covers the nature and scope of the investigation; investigation initiated by; who was interviewed and when; and the purpose of the report.

**Analysis**

The analysis will include a discussion of the chronological events leading to the incident, the nature of the incident and what actions were taken to respond.

The discussion should be brief yet address all relevant factors. The discussion should be factual not subjective.

**Causation**

This discussion must summarize the immediate and root cause(s) which resulted in the incident. See Appendix B.

Immediate causes are the substandard conditions / actions which resulted in the incident (failure to warn, using defective equipment, improper placement, poor housekeeping, inadequate guards, etc.)

Root Causes are the specific personal or job related factors which resulted in the incident (lack of knowledge, stress, improper motivation, lack of skill, inadequate supervision, inadequate maintenance, inadequate equipment, inadequate engineering). Root causes should be listed in the order of greatest contribution to the incident.

**Recommendations and Action Plan**

This section must clearly indicate what measures are required to address the root cause(s) of the incident.

The recommendations are to be specific, indicate completion target date and indicate who is responsible to complete the follow-up work. The time frame for completing the recommendations must be realistic and be completed in a timely manner.

**Sign-Off**

The Investigation Team must sign the report.

**Distribution**

The report must be submitted to the Head Office.

## 27.0 MANAGEMENT OF WORK INJURIES

**Function:** To outline procedures for proper claims management and the assignment of modified work duties.

**Procedures:**

- Corporate incident reports must be completed for all injuries and submitted to the Operations and Corporate office within 24 hours for medical treatment injuries (MTI) and immediately for restricted work injuries (RWI) and lost time injuries (LTI).
- Injured employees when attended by physicians, are required to inform the physician that modified duties are available, such that the physician can indicate this option on the Doctor's report submitted to the WCB. The form provided in this section is to be used in all cases when he/she seeks medical attention. Employees are required to have the form completed by the Doctor and return a copy of the completed form to the Branch Manager prior to their next shift.
- Based on the Physicians report Branch Managers are required to provide a modified work program to employees to provide a modified work program to employees that are capable of performing meaningful and productive modified work duties prior to their next scheduled shift. A copy of a modified work offer memorandum is also provided in this section.
- WCB employer reports must be submitted by the Branch Manager within 72 hours of the incident. The form must indicate the modified work duties are being performed. A follow up phone call must be made to WCB to inform them of the modified work.
- A copy of the modified work program must be sent to the Director of Human Resources.
- The Branch Manager must monitor the modified work program to ensure that it results in meaningful work and that it does not impede the individual's rehabilitation.
- As with all incidents the investigation report must be submitted within seven days of the incident.

DEFINITE OIL FIELD SERVICES LTD  
MODIFIED / RESTRICTED DUTY PROGRAM AND  
MEDICAL INFORMATION RELEASE

Date: \_\_\_\_\_

RE: \_\_\_\_\_  
Employee Name Accident Date

The individual seeking medical attention is an employee, contractor or worker for Definite Oil Field Services Ltd.. The employee was injured as a result of performing routine duties.

As a component of Definite Oil Field Services Ltd.'s Occupational Health and Safety Program, the Company fully endorses the use of modified/restricted work duties.

Definite Oil Field Services will make available modified/restricted work duties consistent with your medical recommendations.

In order to accomplish this program effectively, we would ask you to complete the attached Medical Information Release so that we can provide the employee modified/restricted work. Should there be a fee associated with completing the form, Definite Oil Field Services will assume the cost.

Thank you in advance for your cooperation.

Diagnosis of Injury: \_\_\_\_\_

Is the employee fit for regular duty? \_\_\_ YES \_\_\_ NO

If no, we ask that you review these classifications and indicate which of these our employee is capable of performing:

- | <b>Sedentary</b> ___   | <b>Light</b> ___                                       | <b>Heavy</b> ___   |
|--|--|--|
| - Primarily sitting, with occasional walking and/or standing   | - Infrequent lifting and/or carrying up to 10 lbs.     | - Lifting 50 lbs.  |
| - Writing/revising Standard Operating Procedures   | - May require walking/standing to a significant degree | - Frequent lifting and/or carrying up to 20 lbs.                       |
| - Participating in video training programs   | - Inspections and/or monitoring of plant operations    | - Operating plant equipment  |
| - Administrative duties (telephone work, filing, data review and entry, report writing, inventory tracking, issue safe work permits) | - Sorting small parts inventory                        | - Light painting of facility   |
|  | - Laboratory sample cataloguing and/or disposal        | - Safety equipment maintenance and/or cleaning                         |
|  |  | - Light maintenance duties   |
|  |  | - Providing operational support with assistance from a second operator |

Are there specific restrictions or recommendations? \_\_\_\_\_

Will a further medical assessment be required?

Days: \_\_\_\_\_ Weeks: \_\_\_\_\_

M.D. \_\_\_\_\_ signature  
\_\_\_\_\_ date

I hereby authorize any physician or hospital to release medical information to Definite Oil Field Services pertaining to the above illness/injury for the purpose of recommending Modified/ Restricted Duty alternatives.

Employee: \_\_\_\_\_ Sign: \_\_\_\_\_  
Date: \_\_\_\_\_



## 28.0 CONFINED SPACE ENTRY "CODE OF PRACTICE"

<b>Objective</b>	To identify the requirements for safe entry into a confined space.
<b>Definition</b>	A confined space is defined as an enclosed space with limited access and egress (e.g. crawl space, coffer dam, pressure vessel, storage tank, manhole, trench or pipe line) where a job hazard does or could exist, due to the possibility of reduced oxygen levels, vapour or dust explosion hazards, the presence of toxic gases and/or collapse of the space.
<b>Application</b>	All personnel who may be required to enter a confined space. A safe work permit must be issued for all confined space entries.
<b>Discussion</b>	<p>Any work performed must be under the direction of a supervisor fully conversant with the hazards pertinent to the job at hand, and additionally with other safety requirements such as fire and first aid procedures. Responsibility for assigning tasks to competent workers and taking steps to reduce or eliminate hazards rests with the supervisor. A pre-job safety meeting and if necessary a specific procedure must be completed, prior to commencing work.</p> <p>All workers involved in the confined space entry must be competent and fully understand all safety precautions and rescue procedures, as well as being knowledgeable about potential hazards. Any worker not fully conversant with these requirements must receive the necessary training prior to entering the confined space. All training must be documented and the worker must remain under the direct supervision of a competent worker.</p>
<b>Hazards</b>	<p>In any type of confined space, certain hazards can exist. The following are some commonly encountered hazards.</p> <ul style="list-style-type: none"> <li>- Toxic vapours in excessive concentrations, as a result of materials releasing vapours in poorly ventilated work areas.</li> <li>- Oxygen deficiency as a result of chemicals used to absorb or displace oxygen to reduce the possibility of explosion, or a poorly ventilated area.</li> <li>- Flammable gases, vapours or liquids.</li> <li>- Combustible levels of dusts.</li> <li>- Electric shock from electric lights, tools or other equipment.</li> <li>- Injury from mechanical equipment such as mixers or conveyors being inadvertently activated.</li> <li>- Injury from direct contact with corrosive or other dangerous material.</li> <li>- Contaminants entering the confined space from other areas through ducts or piping.</li> <li>- Excavation or trench cave-in.</li> </ul>

28.0 continued

**Personal Protective Equipment**

Personal protective equipment must be selected to meet the requirements of the task being performed i.e. lifelines and harnesses for vessel entry, respiratory protective equipment.

Appropriate respiratory and skin protection is required

**Safety Standby**

A safety standby is required as outlined in Section 3.13.

**Testing**

Portable atmospheric testing instrumentation is required to evaluate the levels of oxygen, combustible gas or toxics in the confined space.

When personnel must enter the space to conduct a test the appropriate respiratory protective equipment must be worn.

Concentrations of combustible gas must be below 10 of the lower explosive limit (L.E.L) before entry is allowed and must be maintained when work is in progress.

**Isolation**

The supervisor in charge must use the following procedure to ensure that the space is safe for entry:

Before any worker or workers enter a confined space it must be isolated in such a way as to prevent accidental contamination from another source. Acceptable isolation methods are blinding, blanking, spool separation and plugging.

Blanks and blinds must be installed close to the space in order to avoid "dead legs" as far as possible. If toxic gas was present breathing apparatus must be worn when installing the blanks or blinds. It is the supervisor's responsibility to ensure correct installation of isolating equipment.

Where purging is required to remove or prevent hazardous atmospheres, water, steam or inert gases are acceptable purging mediums. All appropriate tests for toxic, combustible or oxygen deficient atmosphere must be completed after purging and prior to entry.

All power driven internal equipment and all power sources must be locked out at the main breaker or fuse panel and properly tagged. Before entry all machine controls must be operated (test to the on position) to ensure that the system is de-energized.

28.0 continued

**Cleaning**

Entry into a confined space will include an assessment to determine if residual matter can be removed by pumping, draining, floating off and then cleaning by hot or cold water, steaming, chemical neutralization, inert gas flooding, or purging. Following purging and cleaning, if residual matter still exists then confined space entry for manual cleaning may proceed, following the requirements of the "Code of Practice".

Sludge and scale removed should be dried except in the case of iron sulphide, which is spontaneously combustible and must be kept damp to prevent ignition. Disposal of iron sulphide and other waste must follow appropriate waste management guidelines.

**Ventilation**

Confined spaces must, where appropriate (i.e. tanks and vessels), have a positive air displacement, mechanical ventilation system installed so that air is moved through the space. This will remove dusts and other residual contaminants left after purging and secondly will keep air circulating in the space reducing the possibility of L.E.L. conditions, dust build-up, accidental contamination and/or heat build up.

**Heat**

Excessive heat can develop during welding or cutting operations in confined spaces, and adequate ventilation must be installed to control excessive heat over extended periods. This may be in addition to ventilation methods mentioned above, and should exhaust the area with approximately 56.6 cubic metres per minute per welder.

**Additional  
Precautions****Written procedures specific to the confined space entry are required.**

Where the entry requires a worker to wear breathing apparatus or where rescue may be difficult, the worker must wear a lifeline and body harness.

For specific confined space entry (i.e. inspection, maintenance only) entry without respiratory protective equipment and/or skin protection may proceed, provided the area has been thoroughly tested, and is monitored throughout the work.

Standby persons must have sufficient equipment for a rescue, and must have a means of communication with the workers inside the space.

28.0 continued

When an ignition source is introduced into the space (i.e. work tools, static) a combustible gas test must be performed. The space must be ventilated continually.

**Job  
Completion**

At the end of a job it is the supervisor's responsibility to ensure the following:

- No tools, equipment or workers have been left behind in the confined space.
- All blinds and blanks have been removed, pups replaced and flanges tightened, and that all valves have been returned to the correct position.
- The equipment and process have been determined to be fit to return to service.
- The work permit has been returned and signed off.
- Arrangements have been made to properly dispose of all wastes.

## 28.1 Safety Standby

<b>Function</b>	To outline the requirements and procedures to be used by the safety standby person acting as an observer and back up during specific work procedures.
<b>Application</b>	All field personnel and contract personnel.
<b>Description</b>	<p>A safety standby person is one used as an observer and if necessary back up in certain work situations as specified in the hot work permit and the list below. The standby person(s) is not a part of the work crew and is concerned solely with the safety of the workers. This person is to be delegated by the Manager or site supervisor prior to any of the following work being conducted:</p> <ul style="list-style-type: none"> <li>- Confined Space Entry</li> <li>- Hot Work Welding and Grinding</li> <li>- Purging Lines or Vessels</li> <li>- Trenching</li> <li>- Cleaning Tanks/ Treaters</li> </ul> <p>The safety standby person must have up to date knowledge in the areas of safe work procedures and rescue, and have the physical ability to rescue personnel if qualified assistance is unavailable. The knowledge base of the safety standby should include:</p> <ul style="list-style-type: none"> <li>- Site specific job procedures.</li> <li>- Operating procedures for the safety equipment to be used.</li> <li>- Potential hazards.</li> <li>- Rescue techniques.</li> </ul> <p>The safety standby person is one who observes the work task, and is capable of providing the following assistance if required:</p> <ul style="list-style-type: none"> <li>- Rescue of other personnel.</li> <li>- Fire suppression.</li> <li>- Monitoring of atmospheric conditions - from outside the confined space.</li> <li>- Assuring the air supply to supplied air breathing apparatus is uninterrupted.</li> <li>- Providing communication between workers and other personnel, particularly in the event of an emergency.</li> <li>- Any additional duties, relating specifically to the job task, as defined in the pre job meeting.</li> </ul>

28.1 continued

**Responsibility**

The prime function of a Safety Standby is to monitor for changing situations that may adversely affect the well-being of persons committed to his care.

The enforcement of Company safety rules, Occupational Health & Safety Regulations or other pertinent Government regulations is not the responsibility of a Safety Standby, nor is it his responsibility to approve the initial criteria to allow the commencement of the job at hand.

**Responsibility**

Responsibility rests solely with the manager or site supervisor and personnel charged with overseeing that particular jurisdiction.

Prior to the start of the job at hand, the manager / supervisor and workers must be aware of all hazards which may be encountered and the primary responsibility cannot be delegated to the Safety Standby.

**Authority**

The Safety Standby has the authority to shut down a job, without prior permission or consultation, and evacuate the work area if the following conditions occur:

**Qualifications**

- If unexpected toxic gases accumulate in the work area.
- If an unexpected explosive condition occurs due to an accumulation of gas.
- If any local conditions change from those specified in the Safe Work Permit.
- If the worker(s) in his care disregard the conditions stipulated in the safe work permit.

The Safety Standby has the authority to prevent anyone or anything entering into or onto the work site, which could create a hazardous condition to those workers being guarded.

Should a Safety Standby exercise their authority in this manner, he/she must immediately report the incident to the manager or site supervisor.

28.1 continued

**Safety  
Equipment**

All safety equipment required must be specified in the site specific job procedures, and must be discussed and if necessary, inspected and function tested at the pre-job safety meeting.

Safety and rescue equipment should include monitoring equipment, breathing apparatus, emergency communication devices, method of anchoring and pulling in safety rope.

**Emergency  
Action**

In the event of an emergency, the safety standby person must do, or have done, the following:

- Inform the appropriate back-up / support group about the emergency, the call must be clear and concise, for example "man down, "fire", etc., and the location of the incident.
- Repeat the message only if there is no immediate response, and then proceed with the appropriate action.

In the event of a "man down" situation, the safety standby must:

- Communicate the situation to back-up / support group as defined in steps 1 and 2 above.
- Put on respiratory protective equipment.
- Remove the victim to a safe area.
- Perform, if necessary, emergency first aid / CPR.
- Report the incident immediately and arrange for the victim to receive medical attention.

## 28.2 Fit Testing

All Definite Oil Field Services Ltd. workers who are required to be at a facility, lease or worksite where a toxic, oxygen deficient or other hazardous atmosphere may exist, must be clean shaven (excluding a small trimmed moustache). Scalp hair must be trimmed short enough or restrained so that it will not interfere with the effective sealing of respiratory equipment. Conditions such as unusual facial contours, scars, skin eruptions, eyeglasses or missing dentures may effect the sealing of a face piece. For that reason, the fit must be tested prior to each use and satisfactory seal achieved.

### Training

All personnel entering a work site where a respiratory hazard may exist must be trained in accordance with legislated requirements and must include:

- Identification of the properties and toxicity of the hazard.
- The reason for choosing a specific piece of equipment and its capabilities and limitations.
- The correct use of self contained and supplied air-breathing apparatus.

The frequency of training will be dependent on the job requirements but will be at least annually. Whenever a confined space entry is to be undertaken, training in the use of the respiratory protective equipment is a requirement for inclusion in the pre-entry / pre-job safety meeting. Documentation of each training session, type and attendance must be kept on file.

### Maintenance

Immediately after use, the equipment must be cleaned and sanitized, and stored in its proper location. The cleaning, maintenance and storage of respiratory protective equipment must be consistent with manufacture requirements.

### Inspection

A trained worker must inspect equipment that is not regularly used, at least monthly. The inspection must ensure that the equipment is in satisfactory working condition, clean and in its proper location. Written documentation of this inspection must be kept on file and must include the inspectors name and the date performed. The supervisor in charge of the work site must designate a trained worker to complete the monthly inspection.



## 29.0 ENGINEERING CONTROLS / CONSTRUCTION REQUIREMENTS

<b>Function</b>	To outline safety engineering controls used by Definite Oil Field Services Trucking Ltd. when purchasing products, equipment and services.
<b>Application</b>	All Definite Oil Field Services Ltd. purchases.
<b>Procedures</b>	<p>In buying, designing and constructing equipment, materials, parts, facilities and processes, Definite Oil Field Services shall follow regulatory requirements as minimum operating standards. We, as a company, also follow the following engineering standards prepared by the following organizations:</p> <ul style="list-style-type: none"> <li>American National Standards Institute</li> <li>American Petroleum Institute</li> <li>American Society of Mechanical Engineers</li> <li>Canadian Standards Association</li> <li>National Fire Protection Association</li> <li>Provincial and National Engineering Association</li> <li>Provincial Boilers Branch</li> <li>Provincial Department of Occupational Health and Safety</li> <li>Provincial Electrical Protection Branches</li> <li>Underwriters Laboratories of Canada</li> <li>Workers Compensation Board</li> <li>Any other organization accredited by the Standards Council of Canada</li> </ul>
<b>Reviews</b>	<p>All equipment and facilities shall be reviewed to ensure workers are not exposed to any of the substandard conditions.</p> <p>This review shall occur annually to validate the manufacturer or supplier specifications. If a less hazardous product or design is available then the less hazardous product or design will be used.</p>

### 30.0 FACILITY / OPERATIONAL CHANGE PROCEDURE

<b>Function</b>	<p>To ensure that operational changes are reviewed and authorized by appropriate personnel so that the regulatory compliance, environmental protection and safety of the operations is not compromised.</p> <p>To this end, the following are provided:</p> <ul style="list-style-type: none"> <li>• a definition of what constitutes a change</li> <li>• documentation of the proposed operational change</li> <li>• review, authorization and implementation consistent with corporate risk management policies</li> <li>• communication of changes and provision of any necessary training to affected employees.</li> </ul>
<b>Application</b>	<p>This procedure applies to changes made to the physical characteristics of the operation (equipment, instrumentation) as well as to changes in the operational procedures.</p> <p>The following are examples of operational changes which would come under this procedure:</p> <ul style="list-style-type: none"> <li>• piping modifications</li> <li>• equipment modifications</li> <li>• field instrument modifications that result in a change to the P&amp;ID (e.g. instrument type, control valve failure position)</li> <li>• any modification that results in a significant change to a controlled document (controlled documents include site drawings, process flow diagrams, piping &amp; instrumentation drawings, shutdown key, operating and control philosophy, critical task procedures, emergency procedures)</li> <li>• procedural modifications (e.g. operating outside limits specified in SOP'S)</li> <li>• safety equipment modifications (e.g. safety relief valve setting or capacity)</li> <li>• dismantling</li> <li>• building modifications (e.g. structure, safety facilities)</li> </ul> <p>The following are examples of facility / operational changes that would not likely require use of this procedure:</p> <ul style="list-style-type: none"> <li>• maintenance activities involving replacement in kind</li> <li>• instrument modifications that do not require a change to the P&amp;ID</li> <li>• building modifications not affecting structural or safety features</li> </ul>

30.0 continued

**Procedure****Step One:**

The individual proposing the work determines if it constitutes a 'change' or it is a 'replacement in kind'. Some detailed examples of each of these activities are presented in attachments at the end of this section to assist in making this determination.

If the proposal is in fact a 'change' then this procedure applies and an **Operational Change Proposal form** is to be completed. In the case of capital work, the project manager would complete the form. Non-capital work would be proposed by the branch manager as a direct report.

The first section of the form is used to describe the proposal, explain the reason for the work and to identify potential impacts.

- environmental / regulatory (e.g. permit modification)
- health and safety (e.g. increase in occupational exposure)
- engineering (e.g. higher boiler operating pressure)
- codes (e.g. tank spacing requirements from fire code)

The initiator and his / her supervisor consider these potential consequences to determine if further review is required from the Environmental Health and Safety or Engineering groups to adequately address the potential impacts - consistent with the Corporation's risk management policies and procedures.

Two checklists have been prepared (one for each group) which will assist in making this determination. These checklists are presented at the end of this section. There is a section on the proposal form to indicate this decision.

There is also a section to indicate if any control documents will require updating as a result of the proposal. This is used to trigger follow-up by the Technical group to ensure that changes are incorporated in the next update of site documents. Control documents include site plan, general arrangement drawings, PFD, P&ID, electrical areas classification drawings, electrical single line drawings, shutdown key, control philosophy and environmental management system.

Process follow-up may be required for evaluation of aspects of the change or if the change may have application to other sites. The need for this follow-up can also be indicated on the form.

**Step Two:**

A copy of the proposal form, signed by the initiator and approved by his / her supervisor is then submitted to the Administrative Assistant for the Technical group where it will be logged in and given a tracking number. If the Engineering and EH&S checklists were completed, they must accompany the change proposal form. If no further review has been requested, the Technical group will co-ordinate any required controlled document update or process follow-up and the change can proceed once the numbered copy is returned to the initiator.

If the requirement for further review has been indicated on the proposal form, a copy of the form will be forwarded to the appropriate Director. It is their responsibility to determine the level of review required. If the proposal is relatively straight-forward and only requires some clarification of requirements or interpretation of existing standards, then a departmental review is probably all that is necessary. However, if additional expertise is required, e.g. to develop a component of the proposal or development of a new standard, a more detailed review will be necessary. This may take the form of a formal process hazards review.

The objective is to have departments that are conducting reviews get back to the originator within 5 working days from receipt of the change proposal form. If the review itself is not complete in this time frame, the reviewer will outline the proposal steps and schedule.

Upon completion of the review, a summary report will be issued. If the proposal has been accepted as is, this will be noted on the change proposal form. If it is accepted with recommendations, this will be noted on the form and these will be attached and returned to the initiator. If the proposal is not accepted, then an explanation of the reason(s) will be provided to the initiator.

**Step Three:**

Once the proposal form is signed off, implementation of the change can continue. This may include:

- i) preparation of design package / drawings
- ii) submission of an AFE
- iii) material procurement
- iv) construction
- v) preparation of procedures and training.
- vi) follow-up documentation

30.0 continued

**Step Four:**

Upon completion of the change, the change proposal form is signed off and returned to the Administrative Assistant for the Technical group. There is a section on the form for any comments regarding the effectiveness of the change. The return of the form initiates any follow-up that has been identified.

A flow chart summarizing the above steps follows.

## Examples of Replacement in Kind vs. Changes

This list, by no means covers all the changes that can occur. If there are any concerns on whether the work identified is 'Replacement in Kind' or a change, contact the Technical group for verification.

Replacement in Kind	Change
<b>Operation and Technology</b>	
Increasing or decreasing temperature of a vessel within specified limits of the equipment	Increasing or decreasing temperatures of equipment to outside of the specified limits
	Changing the operating pressure of a piece of equipment (i.e. outside normal operating range)
Replacing a control scheme with an identical one	Changing control schemes that may effect plant operation
Changing an on critical alarm set point	Changing critical alarm set points
	By-passing equipment or PSV's even if temporary
<b>Process Equipment Changes</b>	
Replacing equipment with the same spec, size, pressure and temperature rating, etc. This includes using a different manufacturer as long as nothing is different between the two	Changing any one part of the piece of equipment (i.e. size, metallurgy, rating, spec, etc.)
	Adding new equipment or piping
	Installing temporary changes to the process
Placing equipment back in service that has been down for a short period of time	Placing equipment back in service that has been out of service for a next ended period of time
<b>Changes in Procedures</b>	
Reducing inspection frequency based on Engineering calculations	Changing type of inspection
	Changing start-up, shut-down or emergency procedures
	Changing Maintenance procedures that effect the way a piece of equipment is repaired, handled or replaced.
<b>Site Equipment Changes</b>	
Recharging the fire protection system with identical material	Modifying existing fire protection system
	Changing building ventilation
<b>Policy Changes</b>	
	Operation of equipment with safety system out of service

## 30.0 continued

**OPERATIONAL CHANGE - ENGINEERING CHECKLIST**

->This reference checklist is provided to support the Facility / Operational Change Procedure

->These are examples of questions to be considered in the review of changes, the checklist can be used to document this effort.

->All questions are to be answered. Indicate N/A if the question does not apply. Consult the Technical group if you need assistance.

OPERATION: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

#	Situation	Yes/No	Response/ Comments
1.	If valves/piping are being modified or added, describe the service:	---	
	Material being handled	---	
	Sweet/Sour	---	
	Temperature	---	
	Pressure	---	
	Is proposed piping specification suitable for above conditions?		
2.	If existing tanks are being modified, added or service changed:	---	
	Are tanks built to appropriate code for service; e.g. API 650 for tanks containing flammables in down stream operations.		
	Are tanks suitable for re-use? (e.g. adequate wall thickness)		
	Is the condition documented?		
	Do the tank have the following?	---	
	Pressure/vacuum thief hatch		
	Emergency pressure relief (for flammable service)		
	Emergency high level nozzle		
	Electronic level gauge		
	Down comer		
	Venting		
	Grounding		
3.	Are drawings required for permit approvals? (e.g. drawings detailing containment; revised site drawing)		
	If yes, indicate requirements		
4.	If drawings exist for the affected area, who will be responsible for marking up the changes/additions?	---	
5.	If drawings do not exist, who is responsible for preparing the necessary documentation?	---	
6.	Is the electrical classification of the affected area documented?		
7.	If no area classification drawing exists, who is responsible for preparation of drawing?	---	
8.	Is equipment being changed/added compatible with electrical classification of area?		

## 30.0 continued

#	Situation	Yes/No	Response/Comments
9.	If pressure vessels are being modified/added, has the appropriate re-certification/certification been obtained?		
10.	If PSV's are being reset/added, is the basis for the sizing documented and approved?		
	Has the potential for creating a vacuum in the system changed?		
	If so, are controls adequate?		
11.	Have preventive maintenance checks been updated to include additional equipment and instrumentation?		
12.	If structures/foundations are being modified/added, have loads been verified?		
13.	If lifting devices are being modified/added, has The appropriate safety factor been used in the design?		
	Has maximum lifting capacity been identified on unit?		
14.	If change involves building modifications/additions, has appropriate design consideration been given to:	---	
	Ventilation?		
	Lighting (including emergency)?		
	Emergency egress?		
	Fire protection?		
	Gas detection?		
15.	If fire protection systems are being modified/added, is adequate design documentation available?		
16.	Is access for operating and maintenance Activities adequate?		
17.	Has all major equipment been grounded?		
<b>COMPLETED BY:</b> _____			<b>DATE:</b> _____



**31.0 OPERATING PERMITS**

<b>Function</b>	To outline requirements concerning site specific operating permits.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Procedures</b>	A copy of the operating permit, all amendments, and applications are to be maintained on site. Managers are required to be fully knowledgeable of permit conditions and maintain regulatory compliance.

## 32.0 FACILITY STORAGE

<b>Function</b>	To outline requirements for facility storage to minimize the risk of environmental impact and ensure regulatory compliance.
<b>Application</b>	Applies to all storage systems including bulk pads, bins, above ground storage tanks, underground storage tanks, and oily waste storage pads. This does not apply to sumps used for floor drains.
<b>Procedures</b>	All Definite Oil Field Services Ltd. operations must comply with provincial regulations governing storage requirements. Managers are responsible for ensuring requirements are met.
<b>General Requirements</b>	<p>Environmental protection and safety measures related to all storage systems are summarized into three distinct categories.</p> <p><b>Integrity</b></p> <p>Storage systems must be constructed to ensure that the integrity of the primary containment device (tank, pad, container) is not adversely affected by the waste stored in it.</p> <p>As a minimum all primary containment devices (&gt;5,000 litres) must be cleaned and visually inspected internally every five years after installation. Tanks that can not be internally inspected must prove their integrity by non-destructive testing methods (pressure test, radiography, leak test, etc.).</p> <p><b>Leak Detection</b></p> <p>All storage systems at an Definite Oil Field Services operation must be designed to allow for visual inspection or physical monitoring to detect leaks.</p> <p>Workplace inspections (Section 11.1) must cover inspection of tanks on a weekly, monthly, quarterly and semi-annual basis.</p> <p><b>Secondary Containment</b></p> <p>Secondary containment is required for all liquid (except freshwater) storage systems to provide for environmental protection and spill containment where the integrity of the primary containment is breached.</p>

### Storage Tank Management Program

All operations must have a management program in place to maintain the integrity of their storage systems and ensure compliance with all regulatory requirements.

The Program must include the following components:

- Tank location and identification number
- Capacity
- Commissioning date
- Storage type (AST, LIST, pad)
- Type of leak detection (visual, sampling)
- Type of secondary containment
- Inspection date and inspection type

### 33.0 SPILLS

#### 33.1 Spill Minimization

<b>Function</b>	To outline measures to be implemented in order to reduce the risk of spills and to minimize their impact.
<b>Application</b>	All Definite Oil Field Services Ltd. facility operations.
<b>Procedures</b>	<p>The following guidelines should be considered to minimize the risk of spills of oil, produced water, or chemicals at facilities:</p> <ul style="list-style-type: none"><li>- Dykes are to be constructed around all tank farms as a condition of permit or approval, where it is deemed that a spill may occur resulting in loss.</li><li>- Level alarms on tanks should also be considered.</li><li>- Leak detection, level alarms and other spill prevention instrumentation should be checked on a regular basis.</li><li>- Unnecessary gauges, sight glasses, nipples and other potential points of failure should be removed.</li><li>- All berms, dykes or diversion ditches for spill containment must be properly maintained.</li><li>- All dead-end piping or tubing that could leak fluids must be terminated with a bull plug, blind flange or equivalent.</li><li>- Loading or transferring of products must be properly supervised.</li><li>- Corrosion monitoring and prevention practices should be reviewed on a regular basis.</li></ul>

### 33.2 Spill Response

<b>Function</b>	To outline procedures for responding to spills, products or chemicals.
<b>Application</b>	All Definite Oil Field Services Ltd. personnel.
<b>Procedures</b>	<p>The first priorities after discovering a spill are to protect the safety of all personnel and the public, minimize damage to the environment and control costs associated with loss of product or equipment. The key actions to take immediately following a spill are to:</p> <ul style="list-style-type: none"><li>- Assess the safety of the situation (including surrounding public).</li><li>- Remove any sources of ignition if it is safe to do so.</li><li>- Notify your supervisor. The senior employee or company representative on-site is responsible for initiating notification and emergency response procedures.</li><li>- Approach the spill site from upwind side if possible. Positive Pressure Breathing Apparatus (PPBA) should be worn in an H<sub>2</sub>S spill area until atmospheric tests prove the area is safe.</li><li>- Shut in the source of the spill if it is safe to do so.</li><li>- Find information regarding the hazards of all chemicals handled on-site in the Material Safety Data Sheets (MSDS).</li><li>- Begin containment of the spills with dykes, booms etc.</li><li>- Begin recovery procedures using vacuum trucks, etc.</li><li>- Where applicable obtain assistance from an appropriate oil spill co-op or consultants for clean up and reclamation as required.</li><li>- Complete and submit required incident reports after spill is contained.</li></ul>

### 33.3 Spill Site Reclamation

<b>Function</b>	To outline procedures for clean-up and reclamation of spills to reduce impact on land surrounding an operation.
<b>Application</b>	All on site and off site spills that involve Definite Oil Field Services Ltd..
<b>Procedures</b>	<p>Spill site reclamation should commence immediately after the spill has been contained and the clean up of the spilled product has been completed.</p> <p>Immediate clean up response followed by a prompt reclamation program will limit the long term costs associated with spills.</p>
<b>Site Assessment</b>	<p>Spills that are contained entirely within the lease do not usually require immediate reclamation of the soil for plant growth. In this case, the contaminated soil should be excavated and the area repaired with clean fill or gravel. The contaminated soil can be sent to a waste management facility or an alternative approved site.</p> <p>For off-lease spills, it is usually necessary to restore the chemical and physical properties of the soil to allow crops or native vegetation to re-establish. This can often be accomplished by adding the appropriate soil amendments and allowing the natural micro-organisms in the soil to decompose any residual oil. A reclamation program should begin with a site assessment to establish the extent of contamination and to use the results of soil analysis to develop a reclamation plan. This information should be documented for submission to regulatory officials and to keep track of the work since it usually takes several years to completely restore the site.</p> <p>Some suggestions for site assessment include the following:</p> <ul style="list-style-type: none"> <li>- Make a sketch of the site, take photographs, and make notes of the surrounding terrain conditions and nearest watercourses.</li> <li>- Collect a sample of the spilled product.</li> <li>- Keep a record of spilled and recovered volumes, disposal methods, soil treatments and other reclamation work.</li> <li>- For a salt water spill, it may be valuable to conduct an electromagnetic soil conductivity survey to define the contamination boundaries.</li> </ul>

## 33.3 continued

- Samples should be taken from the surface soil, at the 15 cm depth (and deeper if necessary to get below the contamination) and from the adjacent field in an uncontaminated area as a control sample. The control sample will be collected first so the sampling shovel or auger is not contaminated.
- The samples are to be analyzed for pH, electrical conductivity, chlorides, sulphates, nutrients, percent oil, gypsum requirement, lime requirement and fertilizer recommendations.

### Reclamation Procedures

Spills contained within the surface soils of an off site area can be reclaimed at the direction of the Division Manager or the Environment and Safety Manager.

General reclamation guidelines for typical spills are outlined below.

Oil and Hydrocarbons - incorporation of organic material such as manure or straw to allow for aeration and plant growth. Application of area 46-0-0 at 300 - 400 lbs/acre or ammonium nitrate 34-0-0 at 400 - 500 lbs/acre.

Repeated tilling or cultivation to the depth of the spill will be required.

Re-vegetation of the site may take place after the initial application and tilling. A grass mix compatible with the surrounding area is preferred.

Salt Water - apply calcium amendments such as gypsum (25 tons/acre) or calcium nitrate (4kg of 15-0-0 / 100 sq ft) to displace salt and bring both salinity (EC) and sodium adsorption ratio (SAR) down to normal levels.

Any run off salt water must be collected and deep-well disposed.

Re-vegetation will generally not be established until the EC < 4 ds/m.

An environmental consulting professional approved for use by Definite Oil Field Services should be retained to reclaim all off site chemical spills or spills that extend beyond the surface soils to the sub-soils and groundwater.

### 33.4 Surface Water and Groundwater Protection

<b>Function</b>	To outline procedures and requirements for the protection of surface and groundwater from contamination.
<b>Application</b>	All Definite Oil Field Services Ltd. tank farm operations.
<b>Procedures</b>	Effective protection of surface and groundwater can minimize pollution by Definite Oil Field Services operations.
<b>Damage Causes</b>	<p>Rainfall or snow melt on a facility can lead to pollution or soil damage in the following ways:</p> <ul style="list-style-type: none"> <li>- Water which soaks into the ground could carry contaminants downward to the groundwater.</li> <li>- Impounded water could become contaminated and carry contamination off site if discharged.</li> <li>- Run-off water from a facility could cause erosion.</li> <li>- Water on a facility could undermine footings or foundations and makes foot or vehicle traffic difficult.</li> </ul>
<b>Courses of Action:</b>	<p>Procedures for avoiding surface water or groundwater contamination include the following:</p> <p>Surface Water</p> <ul style="list-style-type: none"> <li>- Rainfall or snow melt water which falls within developed process areas should be diverted to a collection pond for visual inspection prior to discharge. Any water with a hydrocarbon sheen must be treated or disposed of accordingly.</li> <li>- Surface run-off water collected within the secondary containment system must be field tested and meet with regulatory criteria prior to being discharged.</li> <li>- Water that is discharged to the surrounding environment must be done so in a non-erosive manner, it shall be discharged into an area with well-established vegetation but not where it can run directly into natural watercourses, wells, or dug-outs.</li> <li>- Calculations must be done to determine the diking and the capacity capabilities of the collection ponds.</li> </ul>



## 33.4 continued

## Groundwater.

- By properly managing storage and piping facilities, eliminating spills, and controlling surface water protection of the groundwater will be achieved.
- All Definite Oil Field Services tank farm operations must monitor the groundwater where it is required.

### 33.5 Vegetation Management

<b>Function</b>	To provide an overview of vegetation control and to establish guidelines for the selection of vegetation control methods.
<b>Application</b>	All Definite Oil Field Services Ltd. operations.
<b>Procedures</b>	<p>Control of vegetation within a lease site is important for fire safety and also demonstrates good operating practice and appearance.</p> <p>The objectives of vegetation management are to:</p> <ul style="list-style-type: none"> <li>- Reduce the fire hazard and make operation and maintenance easier.</li> <li>- Comply with regulations controlling noxious weeds.</li> <li>- Foster good relations with adjacent landowners and employee pride in the operations.</li> <li>- Minimize costly off-lease damage caused by improper or excessive use of herbicides or sterilants.</li> </ul>
<b>Contractor Selection</b>	<p>Contractors must:</p> <ul style="list-style-type: none"> <li>- Have a valid Pesticide Applicators Certificate (Industrial Class).</li> <li>- Be knowledgeable of the particular duties to be performed.</li> <li>- Comply with the Definite Oil Field Services safety program and also have their own basic safety program.</li> <li>- Comply with regulatory criteria and industry standards for vegetation management.</li> </ul>
<b>Site Assessment</b>	<p>A vegetation management plan will consider:</p> <ul style="list-style-type: none"> <li>- Long-term use of site - for example, a permanent tank farm operation.</li> <li>- Sensitivity of surrounding area - Herbicide drift from spraying operations can be a problem in some areas if the surrounding lands contain sensitive crops.</li> </ul>

## 33.5 continued

- Soil Type - The main factors are soil texture and drainage class which affect erosion potential. Also, the mobility of some herbicides is directly related to texture.
- Water Sources - Herbicides are toxic and can have adverse effects on humans and wildlife. Care must be taken to eliminate the possibility of contaminating nearby water sources such as creeks, ponds, dugouts or ditches.
- Past History - Sites that have had past problems with vegetation control should be assessed carefully to ensure current practices are safe and reliable.
- Community Relations - Vegetation control should be tailored to local conditions. Check with landowners and local authorities.
- Sterilants - Must not be used for vegetation control.

### **Vegetation Control Methods**

The preferred method of vegetation control is to establish a healthy grass cover in all areas that do not require bare ground for safety or operational reasons. This natural competition method has the following advantages:

- Ease of maintenance
- Aesthetic appeal
- Soil holding capability
- Reduced soil erosion potential
- Easier reclamation vs. sites where chemical vegetation control methods have been used

Establishment may take time in some areas and some weed control may be required initially. Short, slow-growing grasses are available in a special mix. These types of grasses will reduce maintenance costs.

### **Mechanical Control**

The second preference, after natural competition, is to use mechanical methods to control vegetation.

Mowing is the best example and is very common. It provides instant results, offers reasonable weed control, looks neat and controls erosion. Weeds must be cut prior to setting seed.

33.5 continued

It is a good alternative where chemical use is not possible.

### **Chemical Control**

This is the third control method and is required in some cases where the other methods are not adequate (e.g. flare stacks, and around buildings). If improperly used, herbicides can be hazardous to the people using them or others who come in contact with them. Wildlife can also be affected if herbicides are improperly applied. Soil sterilants must not be used.

34.0

### **Rigging**

Definite Oil Field Services and the Employee must ensure that rigging is not subjected to a load more than:

- A) 10% of breaking strength of the weakest part of the rigging.
- B) 20% of ultimate the ultimate breaking strength of the rigging.
- C) If rigging is fatigue rated and worker is being raised or lowered, max load must not exceed 25% of ultimate breaking strength.

Management and or employee must make sure the max load ratings are available to access if not able to mark on equipment.

### **Inspections**

Prior to each work shift, an inspection must be performed thoroughly to ensure that the rigging is functional and safe.

Rigging equipment that is "below the hook" ie. Slings, cables, cableways... must meet ASME standard B30.20.

Inspect that all hooks have safety latches and are functional.

Any piece of rigging with any damage or wear must be removed from the rigging and not used.

## 35.0 Noise Management Program

**Function:** To reduce worker exposure to noise in areas where workers may be present. Noise is a recognized workplace hazard. It must be assessed as required by section 7 of the OHS Code, and then eliminated and controlled as required by section 9.

**Application:** All Definite Oil Field Services employee's and sub-contractors

**Program:** For noise exposure levels please see pg 262

What needs to be done to protect workers depends on the level and type of noise they are exposed to at the workplace. Measuring sound levels identifies noise sources and those workers most likely to be exposed to noise exceeding the occupational exposure limits.

Warning signs must be posted at the periphery of any work area where the noise level exceeds 85 dBA. The signs should include a statement that hearing protectors must be worn while in the area. A supply of several types of hearing protectors should be readily accessible to those entering the area. Signs should present their warning graphically and in words. The words should be written in English and if workers are unable to read English, the words should also appear in the predominant language of the workplace.

### Audiometric testing

Workers exposed to noise levels exceeding the occupational exposure limits listed in Table 1 of Schedule 3 must undergo audiometric testing. The purpose of testing is to establish a baseline measurement of the worker's hearing and to then monitor the worker's hearing at regular intervals to detect changes in hearing ability.

### Use of noise control methods

When reducing worker exposure to noise, engineering controls are preferred, then administrative controls, and finally appropriate personal hearing protection. Engineering controls try to minimize or eliminate exposure by altering or removing the source; administrative controls try to control exposure by modifying the circumstances of the worker's exposure; personal hearing protection reduces exposure when the other approaches have not reduced the hazard to an acceptable level.

### Selection, use and maintenance of hearing protectors

Hearing protectors are subject to many problems and should be considered the last resort against hazardous noise situations. Hearing protectors can fail to provide adequate protection in many situations due to discomfort, incorrect use with other safety equipment, dislodgment, deterioration and abuse. Hearing protectors provide their greatest protection against high frequency noise and significantly less protection against low frequency noise. Nevertheless, hearing protectors can protect against noise-induced hearing loss if their use is carefully planned, evaluated and supervised.

All types of hearing protection must meet CSA standard Z-94.2-02

Definite Oil Field Services employee's are to be provided with a choice of two or three types of protectors from the class of hearing protection considered to be most appropriate for each worker's work area noise level and hearing deficit (if any). The type of protection most appropriate for a particular worker depends on the other equipment that must be worn such as safety headwear, protective eyewear, respirator, etc., the shape and size of the worker's head and ear canals, and relative comfort. Comfort is very subjective and is not related to the Class of protector i.e. a Class C protector is not necessarily any more or less comfortable than a Class B protector.

All components of the program should be reviewed for compliance with the employer's policies and procedures, for completeness and accuracy, and for compliance with regulatory requirements.

### 36.0 Cranes, Hoists and Lifting Devices (>2000 Kg Rating)

**Function:** To outline the safety of the use and care of all cranes, hoists and all lifting devices.

**Application** All Definite Oil Field Services employees and sub-contractors

**Procedures** All cranes, hoists, and or lifting devices must be labelled with identification of :

- A) The manufactures load capacity rating
- B) Manufactures name, the model, s/n number, year of manufacture date or shipment date.

This marking must be visible on a weatherproof plate attached to the equipment with the load rating capacity visible.

The operator of the lifting device must deem the area safe before moving any equipment in the area. Do a walk around of the area and conduct a **JSA** and safety meeting with anyone working in the area of movement.

A load must not be moved over top of any workers for any reason unless:

- A) No other practical alternative exists in the circumstances
- B) The workers are effectively warned in a safety meeting with documentation

Thus the travel of the load must be as low as possible to the ground.

Any employee operating any lifting equipment must be deemed competent by the Safety officer or supervisor on location.

A log of all information must be kept with the device and include details

### 3.5 cont. Chemical, Biological Hazards and Harmful Substances

**Function:**

To ensure all employees and contractors exposure to any substance listed in Schedule 1, Table 2 is kept as low as reasonably achievable.

**Application:**

All Definite Oil Field Services employees and contractors.

**Procedures:**

Definite Oil Field Services is to ensure that worker exposure to a harmful substance is kept as low as reasonably practicable/reasonably achievable and does not exceed the substance's OELs. This is based on the principle that for each substance there is a safe or tolerable level of exposure below which no significant adverse health effects are likely to occur. Many factors affect total exposure, including

(a) the potential for absorption into the body by inhalation, ingestion or skin absorption,

(b) the duration of exposure, and

(c) the effect of simultaneous exposure to multiple substances.

Employees are to ensure all hazard assessments are completed prior to work.

Atmospheric testing must also be done prior to work.

If an employee or contractor is working in the area where chemicals that are harmful to the eyes or skin are used, Definite Oil Field Services will ensure that access to emergency showers, baths or eye wash equipment, or other equipment appropriate for the potential level of exposure.