CHINOOK
CONSULTING SERVICES

CHINOOK CONSULTING SERVICES	**Chinook Consulting Services (2004) Ltd.** Safety Management System	Doc No:	Manual
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HSE POLICIES MANUAL

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COMMITMENT TO SAFETY

Occupational health and safety values will not be compromised. No job is so important and no task so urgent that the necessary steps cannot be taken to perform it safely and maintain the health of our clients, subcontractors and the public.

The management philosophy for Chinook Consulting Services (2004) Ltd. incorporates health, safety and environmental excellence as a core value. Along with our customers, subcontractors and suppliers, we share the vision that we can perform our operations in such a way that no one gets hurt and nothing gets harmed or adversely impacted. Therefore, it is our policy to:

- Comply with all relevant HSE legislation, regulations and other requirements.
- Ensure that systems are developed and implemented to identify, assess, monitor, periodically review and control HSE impacts related to our business activities.
- Set HSE objectives and targets, and achieve superior performance (i.e., pollution prevention, hazard elimination, no accidents or incidents) through the utilization of a continuous improvement process.
- Provide necessary training and education to enable our subcontractors to understand and perform their roles and responsibilities involved with their job functions.
- Implement mechanisms to communicate with and obtain input from customers, subcontractors and other interested parties.

This statement of policy is the foundation that supports our entire HSE System. It establishes our management philosophy with regards to the HSE values, as well as a shared vision between our customers, subcontractors and suppliers.

Our HSE Policy Manual describes responsibilities of the Chinook Consulting Services organization, and control features necessary for achieving our HSE vision. Compliance with this manual is consistently applied at all locations. Each subcontractor identified with responsibilities in the HSE System is responsible for implementing the requirements specifically assigned, and visibly demonstrating their commitment to the HSE process through their actions while performing their work duties.

At Chinook Consulting Services, we are committed - ethically, financially and personally - to a working environment where no one gets hurt and nothing gets harmed.

Our safety strategy includes:

- A comprehensive Health and Safety Policy and Health and Safety Manual.
- Safe work instructions that are clear, documented and understood.
- Comprehensive HSE training for all our wellsite Geologists.
- Third party training for all representatives (First Aid, WHMIS, H2S Alive).
- Accident / Incident reporting system.
- Regular, unscheduled field inspections.
- Pre-spud health and safety meetings.
- First-aid kit on every vehicle and on every location.
- Established and enforced code of professional conduct.
- Good communication within the organization and with the client.

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- Chinook Consulting is committing to conducting its operations in a manner that will protect the health and safety of their clients, subcontractors and the public.

To provide a safe and accident free workplace Chinook Consulting will:

- Integrate Health and safety into all aspects of its operations.
- Comply with government regulations, industry guidelines clients and company policies and procedures in all Chinook Consulting operations.
- Provide appropriate training and equipment to subcontractors, enhancing their ability to recognize hazards and minimize risk during company operations.

We believe the continual improvements in our health and safety performance over the years can be attributed to enhanced safety awareness in all our operations, continuous improvement of our safety system and a high degree of cooperation with our clients and subcontractors in meeting health and safety goals.

Jayson Walmsley
President and Chief Executive Officer

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COMPANY POLICY

What is safety?

Safety is an integral part of our company's operations, intended to protect our subcontractors, clients, property, the environment and the public.

Why is safety important to the company?

There are many costs associated with accidents and unsafe work practices. The greatest costs are human costs. By protecting our contractors, we are also protecting their friends, fellow workers, management, the public and the environment from the far-reaching effects of serious accidents. We are also protecting our ability to continue doing business and employing people.

In addition to protecting lives, our safety program contributes to morality and pride because our contractors participate in identifying safety needs and developing safe work procedures.

What are the alternatives to safety?

Contractors and subcontractors who knowingly violate safety rules may face disciplinary action, dismissal or legal action. Visitors may also face legal action if they knowingly disobey safety rules.

In addition, the company may face legal action and fines for violations of regulatory requirements. Those individuals who do not fulfill their safety responsibilities will become accountable for any problems their negligence creates and may be liable under the law.

Who is responsible?

Chinook Consulting Services is committed to ensuring that all applicable legislation is incorporated into the safety program and to the consistent compliance with that legislation. Everyone contracted by this company is responsible for maintaining the safety program. All well site personnel are responsible for identifying safety needs, communicating safety hazards, investigating hazardous conditions and accidents, providing training, supplying or wearing appropriate safety and personal protective equipment, and ensuring all equipment is properly maintained and meets legislated safety standards. Their role is supported by input from all employees.

All Chinook Consulting Services contractors are responsible for obeying all safety rules, following recommended safe work procedures, wearing and using personal protective equipment when required, participating in safety training programs and informing supervisors of any unsafe work conditions. Everyone has the right and responsibility to refuse to do work when unsafe conditions exist. By fulfilling our safety responsibilities, everyone who works for Chinook Consulting Services will share the benefits of a safe workplace.

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HSE - RESPONSIBILITIES

Management Responsibilities

Safety Policy

What is safety culture?

The safety culture of an organization is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management.

A good safety culture includes effective, appropriate safety management systems; strong safety leadership & commitment from management; participation and involvement of the workforce; and organizational learning and continuous improvement.

Why is safety important to the company?

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We are also protecting our ability to continue doing business and employing people.

In addition to protecting lives, our safety program contributes to morality and pride because our contractors participate in identifying safety needs and developing safe work procedures.

What are the alternatives to safety?

Subcontractors who knowingly violate safety rules may face disciplinary action, dismissal or legal action. Visitors may also face legal action if they knowingly disobey safety rules. In addition, the company may face legal action and fines for violations of regulatory requirements. Those individuals who do not fulfill their safety responsibilities will become accountable for any problems their negligence creates and may be liable under the law.

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participating in safety training programs and informing supervisors of any unsafe work conditions. Everyone has the right and responsibility to refuse to do work when unsafe conditions exist. By fulfilling our safety responsibilities, everyone who works for Chinook Consulting Services will share the benefits of a safe workplace.

Petroleum Industry Guiding Principles For Worker Safety

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

Responsibility

The operating company, when acting as prime contractor, is responsible for coordination and general supervision of all activities at the work site, including activities carried out by contractors, subcontractors, service companies and suppliers. While all parties have a responsibility to promote worker safety, the operating company recognizes its leadership role in promoting worker health and safety on the basis that it has the greatest power to influence work site situations. It is the responsibility of workers and employers to refuse to perform unsafe work practices.

Priority

Activities will be conducted on the basis that safety of all personnel is of vital importance, whether those personnel are employed by an operating company, a contractor, a subcontractor, a service company or a supplier.

Recognition

The process of selecting contractors, subcontractors, service companies 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

The operating company, in cooperation with service companies within the industry, will promote methods and practices that have potential for improving safety performance.

Safety Responsibilities

President Responsibilities

- Hold regular safety meetings and present a key topic of safety.
- Hold periodic management meetings for the purpose of reviewing health and safety activities and incident trends, and for the determination of necessary courses of action.
- If emergency action is required to correct a condition which constitutes an immediate threat to workers only those qualified and properly instructed workers necessary to correct the unsafe

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condition may be exposed to the hazard, and every possible effort must be made to control the hazard while this is being done.

- Insist on performance and behavior that meet the standards of the company's safety program.
- Encourage consultant involvement in safety by demonstrating management's commitment to safety.
- Ensure Company, subcontractor and consultant operations comply with government safety requirements.
- Ensure accidents and incidents are reported and investigated and corrective actions are taken.
- Ensure training needs are identified and met.

Operations Geologist Responsibilities

- To insure that consultants know and understand the company safety policy.
- Training needs are identified and met.
- Unsafe conditions and behavior are corrected immediately.
- Only safe work practices are used.
- Appropriate equipment is available and well maintained.
- Regulatory requirements are met.
- Hazards are identified and removed where possible.
- Contractors are notified and are prepared to deal with the hazards of their work and any specific hazards on the worksite.
- Personal protective equipment is available, properly used, stored, maintained and replaced when necessary.
- All accidents and incidents are reported and investigated and all records reserved for a minimum of four years.

Subcontractors and Consultants Responsibilities

Protect themselves, fellow workers, the public and the environment by:

- Becoming thoroughly familiar with the safety program; actively participating in safety program development and maintenance.
- A supervisor or subcontractor receiving a report must immediately investigate the matter and: (a) ensure that any unsafe condition is remedied without delay, or (b) if in his or her opinion the report is not valid, must so inform the person who made the report.
- Follow safety standards and safe work procedures set out by the employer, employees and regulatory requirement.
- Refusing to perform work when unsafe conditions exist (as defined in provincial occupational health and safety legislation), and refusing to perform work they are not competent to perform.
- Reporting potential hazards to supervisors.
- Immediately reporting to supervisors all accidents, incidents, injuries and illnesses.
- Receive certified training in the following areas by an approved agency, either on or off the worksite (e.g., first aid training, H2S, TDG, off road driving and attend safety meetings).
- Checking tools and equipment, including personal protective and safety equipment for hazards before using them.
- Knowing the location, type and operation of emergency services and equipment.

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- Assuring that you are capable of performing your duties, i.e. not impaired by drugs, alcohol or sleep deprivation while on site.
- That you possess, use and maintain all required personal safety equipment, e.g. fire retardant coveralls with reflective stripes (make yourself be seen), safety glasses, work boots, gloves, earplugs.
- That you drive your vehicle in a manner appropriate to road conditions and seasonal changes in weather.

Visitors Responsibilities

Visitors must:

- Check in with onsite safety personnel and company consultant
- Follow the instructions of the site supervisor or personal escort
- Wear personal protective equipment when required
- Never walk about a worksite unescorted

Client's (Prime Contractor) Responsibilities

- Organizing regular inspection of premises, equipment, work methods and work practices, at appropriate intervals, to ensure that prompt action is undertaken to correct any hazardous conditions found.
- Provide Supervision for the well site in the form of private subcontractor.
- Insure that safety equipment requirements are met, e.g. fire extinguishers, etc.
- Provide all First Aid services, equipment and supplies in accordance with in regulation with government requirement.
- Provide H2S safety protocol when required.
- Ensure that vehicle traffic is controlled on locations.
- A Prime Contractor representative receiving a report must immediately investigate the matter and ensure that any unsafe condition is remedied without delay, or if in his or her opinion the report is not valid, must so inform the person who made the report.

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FIRST AID

Training Requirements

All contractors and employees must obtain and maintain approved training from an approved training agency in the following areas at Chinook Consulting Services expense:

- First aid with CPR
- H2S Alive
- WHMIS
- TDG
- Defensive Driving

The Prime Contractor (Client) must ensure that first aid services, first aid equipment, and supplies required by the OHS Code (Schedule 2) are located at or near the work site they are intended to serve, and (ii) available and accessible during all working hours.

Before workers are sent to a work site, the Prime Contractor must ensure that arrangements are in place to transport injured or ill workers from the work site to the nearest health care facility.

A Prime Contractor must ensure that an ambulance service is readily available to the work site when travel conditions are normal. If an ambulance service is not readily available to the work site, or if travel conditions are not normal, an employer must ensure that other transportation is available that: (a) is suitable, considering the distance to be travelled and the types of acute illnesses or injuries that may occur at the work site, (b) protects occupants from the weather, (c) has systems that allow the occupants to communicate with the health care facility to which the injured or ill worker is being taken, and (d) can accommodate a stretcher and an accompanying person if required to.

The Prime Contractor will record every acute illness or injury that occurs at the work site in a record kept for the purpose as soon as is practicable after the illness or injury is reported to the employer. A record must include the following: (a) the name of the worker; (b) the name and qualifications of the person giving first aid; (c) a description of the illness or injury; (d) the first aid given to the worker; (e) the date and time of the illness or injury; (f) the date and time the illness or injury was reported; (g) where at the work site the incident occurred; (h) the work-related cause of the incident, if any. The employer must retain the records for three years from the date the incident is recorded.

Chinook Consulting will not designate an employee as a first aid attendant if he/she is under 16 years old, has not successfully completed the first aid training course or first aid examination developed or approved by the Board, does dot have a first aid certificate in good standing at the required level issued by the Board or a person recognized by the Board, and does not meet any other requirements determined by the Board for designation as a first aid attendant.

The Prime Contractor will conduct an assessment of the circumstances of the workplace, including: (a) the number of workers who may require first aid at any time, (b) the nature and extent of the risks and hazards in the workplace, including whether or not the workplace as a whole creates a low risk of injury, (c) the types of injuries likely to occur, (d) any barriers to first aid being provided to an injured worker,

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and (e) the time that may be required to obtain transportation and to transport an injured worker to medical treatment.

The Client (Prime Contractor) will review the assessment (a) within 12 months after the previous assessment or review, and (b) whenever a significant change affecting the assessment occurs in the employer's operations and must provide an effective means for: (a) communication between the first aid attendant and the workers served, and (b) the first aid attendant to call for assistance.

The Prime Contractor, employees and subcontractors must ensure that first aid equipment and supplies are maintained in a clean, dry, and serviceable condition, contained in a material that protects the contents from the environment, and clearly identified as first aid equipment and supplies. All Chinook Consulting employees and subcontractors must have a WSIB Approved First Aid Kit adequately stocked with supplies and all items in the box shall be maintained in good condition at all times.

First Aid Emergency Procedure

The first aid attendant and all other persons authorized to call for transportation for injured workers must be trained in the procedures.

The first aid attendant must promptly provide injured workers with a level of care within the scope of the attendant's training, objectively record observed or reported signs and symptoms of injuries and exposures to contaminants covered by this Regulation, and refer for medical treatment workers with injuries considered by the first aid attendant as being serious or beyond the scope of the attendant's training.

The Prime Contractor must post the procedures conspicuously in suitable locations throughout the workplace or, if posting is not practicable, the employer must adopt other measures to ensure that the information is effectively communicated to workers.

Priorities

Your priorities are to:

- assess the situation – do not put yourself in danger
- make the area safe
- assess all casualties and attend first to any unconscious casualties
- send for help – do not delay

Check for a response

Gently shake the casualty’s shoulders and ask loudly, ‘Are you all right?’ If there is no response, your priorities are to:

- shout for help
- open the airway
- check for normal breathing
- take appropriate action

Workplace First Aid

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Unresponsiveness

Airway

To open the airway:

- place your hand on the casualty's forehead and gently tilt the head back
- lift the chin with two fingertips

Breathing

Look, listen and feel for normal breathing for no more than 10 seconds:

- look for chest movement
- listen at the casualty's mouth for breath sounds
- feel for air on your cheek

If the casualty is breathing normally:

- place in the recovery position
- get help
- check for continued breathing

If the casualty is not breathing normally:

- get help
- start chest compressions (see CPR)

CPR

To start chest compressions:

- lean over the casualty and with your arms straight, press down on the centre of
- the breastbone 4-5 cm, then release the pressure
- repeat at a rate of about 100 times a minute
- after 30 compressions open the airway again
- pinch the casualty's nose closed and allow the mouth to open
- take a normal breath and place your mouth around the casualty's mouth, making a good seal
- blow steadily into the mouth while watching for the chest rising
- remove your mouth from the casualty and watch for the chest falling
- give a second breath and then start 30 compressions again without delay
- continue with chest compressions and rescue breaths in a ratio of 30:2 until
- qualified help takes over or the casualty starts breathing normally

Severe bleeding

If there is severe bleeding:

- apply direct pressure to the wound
- raise and support the injured part (unless broken)
- apply a dressing and bandage firmly in place

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Broken bones and spinal injuries

If a broken bone or spinal injury is suspected, obtain expert help. Do not move casualties unless they are in immediate danger.

Burns

Burns can be serious so if in doubt, seek medical help.

Cool the affected part of the body with cold water until pain is relieved. Thorough cooling may take 10 minutes or more, but this must not delay taking the casualty to hospital.

Certain chemicals may seriously irritate or damage the skin. Avoid contaminating yourself with the chemical. Treat in the same way as for other burns but flood the affected area with water for 20 minutes. Continue treatment even on the way to hospital, if necessary. Remove any contaminated clothing which is not stuck to the skin.

Eye injuries

All eye injuries are potentially serious. If there is something in the eye, wash out the eye with clean water or sterile fluid from a sealed container, to remove loose material.

Do not attempt to remove anything that is embedded in the eye.

If chemicals are involved, flush the eye with water or sterile fluid for at least 10 minutes, while gently holding the eyelids open. Ask the casualty to hold a pad over the injured eye and send them to hospital.

Record keeping

Chinook Consulting will maintain at the workplace, in a form acceptable to the Board, a record of all injuries and exposures to contaminants covered by this Regulation that are reported or treated. First aid records will be kept for at least 3 years. First aid records are kept confidential and may not be disclosed except as permitted by this Regulation or otherwise permitted by law.

It is good practice to use a book for recording any incidents involving injuries or illness which you have attended. Include the following information in your entry:

- the date, time and place of the incident
- the name and job of the injured or ill person
- details of the injury/illness and any first aid given
- what happened to the casualty immediately afterwards (e.g. went back to work, went home, went to hospital)
- the name and signature of the person dealing with the incident

This information can help identify accident trends and possible areas for improvement in the control of health and safety risks.

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SLIP, TRIP, AND FALL PREVENTION GUIDE

Prime Contractor

Prime Contractor is responsible for the following:

- Identifying work locations that are "Higher Risk Areas."
- Ensuring periodic workplace inspection is conducted to identify slip/ trip/ fall hazards.
- Properly addressing slip, trip and fall hazards promptly and consulting with HSE department if a slip, trip and/or fall hazard cannot be abated.
- Ensuring appropriate training is provided for all employees who will be working in higher risk areas where slip, trip and fall hazards are prevalent.
- Evaluating employees' (subcontractors) compliance with safe work practices.
- Where routine or occasional floor cleaning is performed by departmental staff creating a floor maintenance procedure and ensuring that personnel properly and consistently follow floor maintenance procedures.
- Promptly reporting all employee injuries .

Employees (subcontractors)

Employees who work in a higher risk area are responsible for the following:

- Adhering to the recommended housekeeping practices & other safe work practices to prevent slip, trip and fall related incidents. This includes cleaning up spills immediately, marking spills and wet areas, mopping or sweeping debris from floors and removing obstacles from walkways, and keeping areas free from clutter.
- Following all safety practices.
- Reporting potential hazards to the supervisor immediately.
- Reporting accidents to the supervisor immediately.

Inspections for identifying slip, trip and fall hazards are recommended:

Department of Environmental Health and Safety

The HSE Department is responsible for the following:

- Developing, implementing, and maintaining the Slip, Trip and Fall Prevention Guide.
- Assisting departments in evaluating areas where slip, trip and fall hazards are prevalent and providing suggestions to help abate noted deficiencies.
- Making available training for employees who work in areas where slip, trip and fall hazards are prevalent.
- Analyzing and reporting trends in injury and/or incidence rates related to slip, trip and
- fall hazards, using government sources.

Slip, Trip and Fall Hazards

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Common slip, trip and fall hazards result from:

- Wet or contaminated floors (e.g. grease, liquids, ice, oil, dust fine powders, etc.).
- Uneven walking surfaces, holes, changes in level, broken or loose floor tiles,
- Mats or rugs not laying flat on the floor.
- Obstructions and accumulation of objects in walkways (e.g. hoses, cords, cables, debris, etc.).
- Unguarded platforms, walkways, and work areas 30 inches above ground.
- Inadequate illumination.

PPE

Employees who work in potentially slippery higher risk areas must wear slip-resistant footwear. When selecting slip-resistant footwear, the following should be considered:

- Level of slip-resistance (i.e. Polyurethane and microcellular urethane soles are more slip-resistant compared to nitrite and styrene rubber).
- Tread design, tread hardness, and shape of sole and heel. (i.e. High elastic soles with raised-tread and cross-hatch patterns are more slip-resistant compared to rough and flat soles. Tread patterns should cover the whole sole and heel area).
- Proper support and comfort.

NOTE: The use of slip-resistant footwear alone is not adequate in preventing slip-related accidents. General housekeeping procedures, safe work practices, and matting/ floor treatments (as necessary) must be used.

The Prime Contractor has the obligation to create a program who addresses its responsibility to ensure all equipment is maintained, safe to perform, adequate strength for its purpose, and free from obvious defects. Damaged and faulty equipment reporting procedures must be in place

The Following Forms that can be found in **Appendix – Forms** may be used

- Form 1 – Hazard Report Form
- Form 2 – Worksite Safety Inspection Form
- Form 3 – On-Site Inspection
- Form 4 – Incident and Accident Report

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RIG SITE – SAFETY AWARENESS

Safety Rules

Housekeeping

- Keep your work area clean and free of oil, grease, mud, and unnecessary tools.
- Clean up spills promptly and properly.
- Place garbage and waste materials in appropriate containers.
- Keep front of shack free of snow, ice and water.
- Remove materials and tools obstructing the movement of vehicles or people.
- Tidy shack before leaving the job site.

Safety Training Requirements

All contractors and employees must obtain and maintain approved training from an approved training agency in the following areas at Chinook Consulting Services expense:

- First aid with CPR
- H2S Alive
- WHMIS
- TDG
- Defensive Driving

Alcohol and Drug Abuse

- Do not report to work while under the influence of alcohol or illegal drugs.
- Notify the Prime Contractor's representative if you are taking prescription drugs that can cause drowsiness and may affect your work.
- The use of alcohol or illegal drugs at work is prohibited.

Smoking

- Smoke only in designated areas!
- Do not carry matches or lighters around the worksite, except when testing gas detectors.

Chemicals

- Keep all dangerous chemicals under a fume hood or near fan ventilation.
- Have on location all MSDS sheets for any chemicals that you bring on location.
- Always use safety glasses while filling or mixing any chemicals, e.g. 10% hydrochloric acid, trichloroethylene, etc.
- Correctly vent any hotwire unit.

Safety Clothing

- Fire Retardant coveralls with flame resistant clothing next to the skin (e.g. cotton) must be worn when working or inspecting any part of the rig.

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- CSA approved safety glasses must be worn alone or in conjunction with prescription eyewear while working or inspecting any part of the rig. All Contractors that wear contact lenses must report this to onsite safety personnel.
- CSA approved safety boots and hardhats must be worn at all times on location.

Driving

- Driving between the hours of 23:00 and 05:00 should be limited, Chinook Consulting Services does not support late night driving or driving while fatigued. When leaving a well, consultants should have adequate rest before proceeding on the road.
- Winter driving should be done with caution, all consultants must heed Environment Canada and local authorities road condition reports, stay off closed roads and highways.
- All contractors must have clean, appropriately maintained safety kits in their personal vehicles at all times.
- All driving on Prime Contractor's sites must be done so within the Client's regulations to ensure worker safety.
- All contractors are responsible for the maintenance and up keep on their vehicles.

Fire Arms

- No fire arms, explosives, fireworks or hunting bows are allowed on operator's locations or in operator's camps.

Professional and Personal Appearance

- All Contractor must maintain a physical fitness level to sustain all aspects of their positions.
- All Contractors must inform the Contracting companies representative if they wear contact lenses or have any existing medical conditions.
- All Chinook Consulting Services Contractors are expected to conduct themselves in a professional manner through personal hygiene and personal contact with other contractors and operator employees.
- Full beards are not allowed, mustaches and some goatees may be acceptable. Any facial hair or long hair must not interfere with the use of a positive pressure face mask.

Procedures For Hazardous Wellsite Jobs

Before commencing work on any jobsite, Chinook Consulting Services Subcontractors should request a dated Hazardous Assessment Document from the Client's Consultant.

This document will provide you with jobsite hazards that are pertinent to that jobsite. This document should be updated on a regular basis or as situations change.

At any time that you identify a hazard that is not included on the Hazard Assessment, you may approach the Client's Consultant and have the list updated.

Subcontractors and Consultants Responsibilities

Protect themselves, fellow workers, the public and the environment by:

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- Becoming thoroughly familiar with the safety program; actively participating in safety program development and maintenance.
- Follow safety standards and safe work procedures set out by the employer, employees and regulatory requirement.
- Refusing to perform work when unsafe conditions exist (as defined in provincial occupational health and safety legislation), and refusing to perform work they are not competent to perform.
- Reporting potential hazards to supervisors.
- Immediately reporting to supervisors all accidents, incidents, injuries and illnesses.
- Receive certified training in the following areas by an approved agency, either on or off the worksite (e.g., first aid training, H2S, TDG, off road driving and attend safety meetings).
- Checking tools and equipment, including personal protective and safety equipment for hazards before using them.
- Knowing the location, type and operation of emergency services and equipment.
- Assuring that you are capable of performing your duties, i.e. not impaired by drugs, alcohol or sleep deprivation while on site.
- That you possess, use and maintain all required personal safety equipment, e.g. fire retardant coveralls with reflective stripes (make yourself be seen), safety glasses, work boots, gloves, earplugs.
- That you drive your vehicle in a manner appropriate to road conditions and seasonal changes in weather.

Hazard Assessment

Before commencing work on any jobsite, Chinook Consulting Services Subcontractors should request a dated Hazardous Assessment Document from the Client's Consultant.

This document will provide you with jobsite hazards that are pertinent to that jobsite. This document should be updated on a regular basis or as situations change.

At any time that you identify a hazard that is not included on the Hazard Assessment, you may approach the Client's Consultant and have the list updated.

Setting up Gas Detector:

This a procedure that involves lifting heavy objects, therefore it runs the highest risk of injury due to the fore mentioned safety factors:

- No contractor will set up a gas detector or collect their own samples if the guard rails around the catwalk have not been installed.
- No Contractor shall set up a gas detector in an area with more than 15ppm of H2S.
- All contractors will use save lifting procedures, bending the knees, keeping the back straight while you lift with your legs.
- Unpack detector and computer making sure that all components are included.
- Take gas trap and computer analyzer unit (if using wireless unit) over to rig, being careful to keep a free hand for handrails.

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- Install gas trap on the shaker box, making sure to install it so that the exit port will be above the shaker box water line. Most gas traps have a lever clamp that will hold the trap in place if not, secure the trap so that it is installed safely with no hazard of it falling or slipping.
- Install the analyzer on a guard rail where it will be out of the way of normal rig operations.
- Make sure that all poly line and extension cords run under the catwalk or alone the back side of a rail. Tape all poly line and extension cords up so as not to create a tripping hazard.
- If using a conventional gas trap that has poly line that extends the lease to the well site trailer, install poly line next. The poly line may need to be suspended over the lease, if this is the case the line must be marked with flagging tape so that large trucks and other construction equipment will notice it as an aerial hazard.
- At no time should a contractor get him/herself in a situation where a safety belt and lanyard are necessary. At this time the contractor should get a qualified member of the drilling crew to suspend any line for him/her.
- Before plugging any equipment into any rig outlet, check with the rig crew as to which outlet should be used.
- Set up computer unit inside shack, no additional safety precautions apply.

Working with H2S

At no time should a Chinook Consulting Services Contractor work directly in an area where H2S has been confirmed. No Chinook Consulting Services Contractor should work or enter any environment that has a H2S concentration of 15ppm or greater.

Walking on lease, Rig Move:

Rig moves are probably the most dangerous time, more rig crew members are injured on rig moves than at any other time. There's lots of activity and heavy equipment being moved around.

For the most part common sense should govern you, it is a good policy if possible to be off location or stay in your trailer during a rig move. While walking on location at any time, make yourself be seen. There should be reflective stripes on your coveralls.

Workplace Violence

Violence means the threatened, attempted or actual conduct of a person that causes or is likely to cause physical injury. Violence whether acted upon or by any Chinook Consulting Services subcontractor will not be tolerated.

Acts of violence can take the form of physical contact. Abuse in any form erodes the mutual trust and confidence that are essential to (this employer's) operational effectiveness.

Acts of violence destroy individual dignity, lower morale, engender fear and break down work unit cohesiveness.

Acts of violence may occur as a single event or may involve a continuing series of incidents. Violence can victimize both men and women and may be directed by or towards (this organization's) workers, contractors, visitors and members of the public.

If any Contractor is acted upon in a threatening manner, action should be taken:

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- The victim should make his or her feelings known to the offending person, directly or with the assistance of a third party. The offending person needs to be made aware that his or her actions ore considered offensive.
- Report the incident to the Chinook Consulting Services office.
- Report the incident to the Client's representative.
- Consult health professional of your choice if you experience any injury or adverse symptom.
- Complete an incident report and send it to the office as soon as possible after the incident, noting the date, time and nature of the offence.
- Any and all incidents reported will be followed through on and investigated if deemed necessary. No action shall be taken against an individual for making a complaint unless the complaint is made maliciously or without reasonable and probable grounds.
- No employee, contractor or other individual affiliated with this organization shall subject any other person to violence.

Working Alone Safely

Under normal circumstances, no Chinook Consulting Services subcontractor should find themselves working on a well site alone. If for any reason a subcontractor should find themselves on a location alone, the subcontractor should inform the office immediately of the situation.

The only other time when a Chinook Consulting Services subcontractor will be working alone is while driving.

All contractors should call/email the office when leaving home to go to a location. They should then again make contact with the office once arriving on location or stopping for the night. All contractors leaving the public road system and entering onto a private road system (i.e. logging road or radio controlled road), should be equipped with a two way radio.

There is not a foreseeable circumstance that would have a contractor on a well site alone, but in the event that this would occur the contractor should call the office immediately and report their alone status. Contact should be maintained with the office on a four hour schedule until the "alone" status is resolved. When working alone, the subcontractor should have an operating cell phone and stay in contact with the Chinook Consulting Services office.

The subcontractor should never endanger themselves by attending to any part of the drilling operation when alone and should carry their cell phone on their person at all times.

Never venture to isolated spots on location. When on or around the rig, inform the driller of your whereabouts. When leaving location for any reason, inform the client's representative.

Bypassing Safety Controls

Obtain authorization before overriding or disabling safety controls. Chinook personnel will understand and use safety-critical equipment and procedures which apply to their tasks and will obtain authorization before disabling or overriding safety equipment, deviating from normal procedures and crossing barriers.

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Hazardous Job Inventory

(As Performed by Subcontractors)

This is a breakdown of all the responsibilities of a wellsite geologist. In breaking down the responsibilities this way, it is our hope to identify areas of potential safety concern. Some of these concerns are minor and are best dealt with using common sense and are not meant to insult the reader's intelligence. Some may identify safety concerns not previously thought of and this is the point to this exercise. *Rating = 1 being most dangerous, 5 is least dangerous

*Rating	Job	Safety concern	Control
2	Setting up gas detector	Heavy equipment Maneuvering stairs while carrying a load Slip / Trip / Fall, Strains, Sprains	Procedure required Proceed to Procedures for Hazardous jobs
3	Sample collecting	Slip / Trip / Fall Heavy lifting	Handrails Limit bucket weight
1	H2S	Possibly fatal if inhaled Headache	Procedure required Proceed to Procedures for Hazardous jobs
4	Sample preparation & Invert drilling fluid	Skin abrasions & lacerations Nocuous odor	Use of sample washing unit Use of ventilation fans PPE: Rubber gloves
4	Chemical mixing	Chemical splatter and spills Chemical burns	Ventilation PPE: Safety glasses, rubber gloves
3	Driving	Accidents Hazardous road and weather conditions Off road driving conditions Potential harm from others	Communication protocol required Vehicle safety standards
4	Walking on lease	Rig moves Heavy equipment Other drivers In climate conditions, i.e. mud, snow	Stay out of harms way during rig moves. Wear proper safety footwear for weather Be seen: reflective stripes on coveralls
5	Disposal of unused sample	Heavy Sprains & strains Slip / Trip / Fall	Limit weight to carry Use handrails near garbage disposal units
4	Workplace violence	Personal injury	Use procedures if exposed
5	Working alone	Accidents Illness Emergency	Working alone is discouraged Regular check ins are required

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On-Site Inspection

Housekeeping

- General condition of trailer
- Chemical storage and labeling
- Access to WHMIS forms
- Emergency telephone list posted
- Muster locations (if relevant) posted
- Other:

Safety equipment

- CSA rated safety boots
- Hardhat (check date)
- Fire retardant coveralls
- Eye protection
- Ear protection
- Mobile phone
- Other:

Vehicle inspection

- Towrope
- Fire extinguisher
- First Aid kit
- Water
- Seasonally appropriate clothing
- All equipment secured for transport (legal requirement in B.C.)
- Other:

Gas detector setup

- Is the area left in a tidy manner
- Are all tripping hazards secured
- Are all hanging obstacles secured to prevent equipment falling from above
- Are all exhausts vented to the outdoors, no exhausts from gas detectors venting inside well site trailer

Was the entire job done in a safe manner

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HYDROGEN SULFIDE EMERGENCY RESPONSE PLAN

Hydrogen Sulfide or sour gas (H_2S) is a flammable, colorless gas that is toxic at extremely low concentrations. It is heavier than air, and may accumulate in low-lying areas. It smells like "rotten eggs" at low concentrations and causes you to quickly lose your sense of smell. Many areas where the gas is found have been identified, but pockets of the gas can occur anywhere.

Iron sulfide is a byproduct of many production operations and may spontaneously combust with air. Flaring operations associated with H_2S production will generate Sulfur Dioxide ($S0_2$), another toxic gas. Active monitoring for hydrogen sulfide gas and good planning and training programs for workers are the best ways to prevent injury and death.

All personnel working in an area where concentrations of Hydrogen Sulfide may exceed the 10 Parts Per Million (PPM) should be provided with training before beginning work assignments.

The Alberta occupational health and safety legislation has specific requirements related to hydrogen sulfide. The 8-hour OEL is 10 PPM and the ceiling OEL is 15 PPM. If work shifts are longer than 8 hours, the exposure limit must be reduced.

Comprehensive training should be provided for workers in H2S operations:

- Identification of the characteristics, sources, and hazards of Hydrogen Sulfide.
- Proper use of the Hydrogen Sulfide detection methods used on the site.
- Recognition of, and proper response to, Hydrogen Sulfide warnings at the workplace.
- Symptoms of Hydrogen Sulfide exposure.
- Proper rescue techniques and first-aid procedures to be used in a Hydrogen Sulfide exposure.
- Proper use and maintenance of personal protective equipment. Demonstrated proficiency in using PPE is required.
- Worker awareness and understanding of workplace practices and maintenance procedures to protect personnel from exposure to hydrogen sulfide.
- Wind direction awareness and routes of egress.
- Locations and use of safety equipment.
- Locations of safe briefing areas.
- Use and operation of all Hydrogen Sulfide monitoring systems.
- Emergency response procedures, corrective action, and shutdown procedures.
- Effects of Hydrogen Sulfide on the components of the Hydrogen Sulfide handling system.
- The importance of drilling fluid treating plans prior to encountering Hydrogen Sulfide.

Potential Hazard

- H2S exposure greater than the Permissible Exposure Limit. Possible Solutions: Implement an H2S contingency plan including, but not limited to:
- Appropriate instruction in the use of hydrogen sulfide safety equipment to all personnel present at all hydrogen sulfide hazard areas.
- Gas detection where hydrogen sulfide may exist.
- Appropriate respiratory protection for normal and emergency use.

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H2S Health Hazards

H2S Concentration	Possible Health Hazards
<1 ppm	Can be smelled
0-10 ppm	No known adverse health effects
10-20 ppm	Occupational Exposure Limit (OEL) 10ppm: 8 hours OEL (time weighted average maximum exposure for an 8 hour work day) 15ppm: 15 minutes OEL (15 minutes exposure with a 60 minutes separation between exposures) 20ppm: Ceiling OEL (No one should be exposed to H2S levels of more than 20ppm without proper respiratory protection)
20-200 ppm	Eye and respiratory tract irritation, loss of smell. Will cause headache and nausea.
100 ppm	Immediately Dangerous to Life and Health A person without adequate respiratory protection may be fatally injured or suffer immediate, irreversible or incapacitating health effects
500-700 ppm	Affects central nervous system. Causes loss of reasoning, loss of balance, unconsciousness after two minutes. Breathing stops.
700-1000 ppm	Immediate loss of consciousness, Permanent brain damage, death if not rescued immediately.

General Safety Procedures

Our safety strategy includes:

- A comprehensive Heath and Safety Policy and Health and Safety Manual
- Safe work instructions that are clear, documented and understood
- Comprehensive HSE training for all of our wellsite Geologists
- Third party training for all representatives (First Aid, WHMIS, H2S Alive)
- Accident / Incident reporting system
- Regular, unscheduled field inspections
- Pre-spud health and safety meetings
- First-aid kit on every vehicle and on every location
- Established and enforced code of professional conduct
- Good communication within the organization and with the client

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Chinook Consulting is committing to conducting its operations in a manner that will protect the health and safety of their clients, subcontractors and the public. To provide a safe and accident free workplace Chinook Consulting will:

- Ensure that the employee/subcontractor who may be exposed to H2S:
- Is informed of the health hazards associated with exposure to that substance.
- Is informed of measurements made of airborne concentrations of harmful substances at the work site.
- Is trained in procedures developed by the employer to minimize the worker's exposure
- Integrate Health and safety into all aspects of its operations.
- Comply with government regulations, industry guidelines clients and company policies and procedures in all Chinook Consulting operations.
- Provide appropriate training and equipment to subcontractors, enhancing their ability to recognize hazards and minimize risk during company operations.

Code of practice

Storage, handling, use and disposal of H2S if there is potential for exposure:

Requirements for prime contractor when drilling a critical sour well:

- Detailed drilling plan, highlighting potential well issues, remedial protocols and safety processes, including an Emergency Response Plan and frequent inspections.
- Dual ignition systems for ignition of the well in the event of an uncontrolled release.
- Twice the amount of drilling fluid available on site - drilling fluid (or mud) is key to regulating subsurface pressure and preventing blowouts.
- Daily and weekly inspections by the drilling operator.
- Redundant Blow out prevention system (BOP) with shear rams to isolate the well bore.
- Development of ERCB-approved Emergency Response Plan and mandatory contact with residents to discuss detailed emergency response plans as well as any mobility or transportation issues.

Measures to be used by prime contractor to prevent the uncontrolled release of H2S when drilling a critical sour gas well:

- In addition to the emergency response planning and monitoring of the emergency planning zone, on-site safety measures further help to reduce the chances of an incident at a sour well.
- The first line of defense is top-quality equipment. The equipment used is resistant to the harmful effects of sour gas and contributes to blowout prevention. For example, only premium quality drill pipe can be used for sour operations and all equipment is corrosion resistant.
- Redundancies and backup equipment provide a second line of defense. For instance, the blowout preventers (BOP) - the device that isolates the well bore and diverts wellbore fluids - is configured and maintained to provide multiple means of isolating or diverting wellbore fluids.
- Sour drilling operations must also maintain double the reserves of drilling mud that will be needed on site, thereby ensuring that there are no shortages. The drilling mud is the mixture of liquids that is circulated through the well bore to counterbalance changes in subsurface pressure and prevent blowouts.

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- The wells themselves also have built in protections. For instance, in the event that the pressure changes, the blowout prevention system will close the well at the surface through a series of pipe ram blocks (solid metal clamps that close around the drill pipe) and the blind shear rams, which cut through the drill pipe and close the entire well.
- Equipment is regularly checked for signs of wear or corrosion. Key components of wells and facilities are monitored by computer and in-person inspections.
- Finally, the well is lined with surface casing and cement as a preventative measure to ensure that hydrocarbons, H2S and other compounds cannot contaminate groundwater.

Procedures to be followed if there is an uncontrolled release:

Emergency Evacuation Plan

Each work location where exposure to hydrogen sulfide is possible shall have an emergency evacuation plan, an emergency response plan, or where required, an emergency contingency plan outlining the procedures to follow in the event of a sudden release of hydrogen sulfide.

Chinook Consulting employees shall be familiar with the provisions contained in the plan and it shall be reviewed with personnel prior to initial assignment to the job and whenever changes are made to the plan(s). The plan should address the identification of emergency evacuation routes and areas of safe refuge, methods or signals to alert personnel of an emergency condition, reporting procedures and any other emergency procedures specific to the location.

First aid measures:

- Immediately remove the victim from further exposure. Designated rescuers must wear properly fitting, positive pressure self-contained breathing apparatus (SCBA) and other required safety equipment appropriate to the work site.
- If the worker is not breathing, apply cardio-pulmonary resuscitation in the nearest safe area.
- Remove contaminated clothing, but keep the individual warm.
- Keep conscious individuals at rest.
- Be aware of possible accompanying injuries (e.g. the victim may have fallen when they were overcome) and treat them accordingly.
- If the victim's eyes are red and painful, flush with large amounts of clean water for at least 15 minutes.
- Ensure the worker receives medical care as soon as possible. The worker must not be allowed to return to work or other activities.

Personal Protective Equipment

The prime contractor must provide workers with appropriate respiratory protective equipment.

There are many types of respirators available and it is important to select the correct level of respiratory protection depending on the type of work being done and the airborne concentrations that may be encountered.

Since H2S is irritating to the eyes, air-tight goggles or full-face respirator masks should be worn.

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A full-face piece positive pressure supplied air respirator is needed for work areas where H2S concentrations exceed the OEL.

The National Institute for Occupational Safety and Health (NIOSH) specifies an IDLH (immediately dangerous to life or health) concentration for hydrogen sulphide of 100 ppm.

NIOSH allows the use of air purifying respirators for hydrogen sulphide only for escape purposes at concentrations below the IDLH concentration. Above the IDLH concentrations, or for emergency or planned entry into unknown concentrations, a full-face piece positive pressure supplied air respirator must be used.

Whatever the type of respirator used, the worker must be clean-shaven where it seals to the skin of the face and must be fit-tested for the type of equipment being used.

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RISK ASSESSMENT AND HAZARD IDENTIFICATION

Risk assessment

Quantitative risk analysis is a key tool applied in safety management and risk control throughout concept, design, construction, operation and decommissioning of all industrial activity in order to achieve safe operations and hazard control.

Risk analysis is a tool for identifying potential accidental events, quantifying the likelihood of these events and the consequence if they occur.

The Prime Contractor must conduct a risk assessment in any workplace in which a need to rescue or evacuate workers may arise.

The guiding principle that should be considered throughout the risk assessment process can be divided into a series of steps, summarized as follows:

- Identifying hazards and those at risk, looking for those things at work that have the potential to cause harm, and identifying workers who may be exposed to the hazards.
- Evaluating risks, estimating the existing risks (their severity, probability, etc.) and prioritizing them in order to be done to eliminate or prevent risks are prioritized.
- Deciding on preventive action, identifying the appropriate measure to eliminate or control the risks.
- Taking action, putting in place the preventive and protective measures through a prioritization plan, and specifying who does what and when, when a task is to be completed and the means allocated to implement the measure
- Monitoring and reviewing, the assessment should be reviewed at regular intervals to ensure it remains up to date. It has to be revised whenever significant changes occur in the organization or as a result of the findings of an accident or near miss investigation.

The employer has the duty to:

- Ensure the safety and health of workers in every aspect related to work
- Organize the risk assessment
- Select the persons to carry out the assessment and ensure that they are competent
- Assess the risks and implement protective measures
- Consult the employees or their representatives about the findings of the risk assessment, and the persons carrying out the assessment and implementing the preventive measure
- Be in possession of an assessment of the risk
- Draw up assessment records having consulted with the workers and /or their representative, or even involved them in the work, and make the records available to them
- Ensure all persons affected are informed of any hazard, of any harm to which they may be at risk and of all the protective measures taken to prevent such harm

Employees /subcontractors have the responsibility to:

- Be consulted on arrangements for the steps of the risk assessment
- Participate in the RA process
- Report changes in the workplace

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- Be informed of the risks of their safety and health and of the measures required to eliminate or reduce these risks
- Cooperate to enable the employer to ensure a safe working environment
- Strictly follow employers internal instructions / regulation in using and implementing control measures (i.e. usage of PPE)

If the risk assessment shows a need for **evacuation or rescue**, appropriate written procedures must be developed and implemented by the prime contractor and a worker assigned to coordinate their implementation.

Hazard Identification

Hazard – refers to a condition that has the potential for causing harm to *people, property, or the environment*. As such, we recognize that hazard identification and control on the worksite is a critical step in the prevention of incidents. With the increased emphasis on hazard assessment in the Alberta OHS Code, Management and Representatives must be prepared to:

- Apply the hazard assessment processes established by the Client and service contractors to assess and communicate hazards in the workplace.
- Report potential process and operations hazards.
- Understand the potential consequence of those hazards.
- Ensure safeguards are in place to prevent, detect or mitigate potential hazards.
- Implement additional measures for addressing workplace hazards.

Hazard identification is a necessary step to insure subcontractor safety, all worksite hazards must be identified and proper precautions taken. Before work commences these hazards must be identified, documented and necessary controls put in place.

Chinook's Hazard Assessment form should be used or obtained from the Client's representative when you arrive on location. This form will layout all Hazards, Consequences, Likelihood and Risks involved with the job.

Most jobsite hazards will have been identified by the operator; it is the responsibility of the subcontractor to talk with the Prime Contractor's representative about these hazards.

Every subcontractor has the responsibility to access and document hazard specific to his/her own responsibilities within the operation.

It is the responsibility of the subcontractor to attend at least one safety meeting per day and to attend the safety meeting of any new service company, e.g. loggers, cementers, directional companies.

Hazard inspection should include physical hazards, work practices and vehicle inspections.

Examples of physical hazards are:

- Slipping and tripping hazards
- Presence of dangerous gases
- Faulty or missing emergency equipment
- Improper or missing signs

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- Faulty machinery, cables, tie-downs, etc.
- Poor housekeeping
- Confined spaces
- Inadequate or missing personal protective equipment
- Blocked exits
- Overhead hazards
- Electrical hazards
- Difficult terrain for vehicular or personal movement
- Flammable, corrosive or explosive materials
- Supply material safety data sheets for any chemicals or hazardous materials that the subcontractor brings on site
- Missing material safety data sheets
- Workplace violence
- Working alone

Examples of work practices to inspect are:

- Know and follow standard work procedures
- Properly use tools and equipment
- Correctly use personal protective and other safety equipment
- Know emergency response procedures
- Properly supervise and direct workers and visitors under your supervision

Examples of equipment and vehicle inspections are:

- Daily inspection by operators to monitor wear and tear (visual circle check).
- Fluid levels, belts, hoses, and electrical connections should be checked.
- All subcontractor vehicles must be equipped with a roadside emergency kit which should contain the following, a first-aid kit, blanket, tow rope, flash light, seasonally relevant equipment (i.e. water, candles, warm clothing). All items are expected to be clean and maintained to ensure readiness.

Scheduled Inspections

All contractors should perform these inspections on a regular basis. They should be performed upon arriving on site and then on a regular weekly basis thereafter. You must keep records of your inspections and the actions taken. If problems are life threatening, they should be corrected immediately and workers and company representative should be informed of the situation. Any time a new hazard or dangerous situation arises a new Hazard Assessment should be completed.

Hazard Control Hierarchy

- **Elimination**: Remove the hazard from the workplace. Do not conduct the task, or remove the cause of the potential harm.
- **Substitution**: Replace the cause of the hazard or aspect to reduce the potential harm.
- **Engineering**: For example, protection such as guards, lockout devices, additional containment and exhaust ventilation to reduce potential harm.

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- **Administrative**: Information provided with the purpose to alter how the work is done. For example warning devices, warning signs, work practices, job rotation, scheduling, training, and work permits.
- **Personal**: Equipment worn by individuals to reduce the exposure and the consequence from a hazard such as chemical or noise.

Hazard Assessment and Reporting

Hazard – refers to a physical or chemical condition that has the potential for causing harm to people, property, or the environment.

Likelihood, Frequency or Probability – is the estimation of how often an incident could occur, uses industry experience or quantitative data

Consequence – Outcome or impact of an event

Risk – is the product of the frequency of an event occurring and the consequence severity of the event

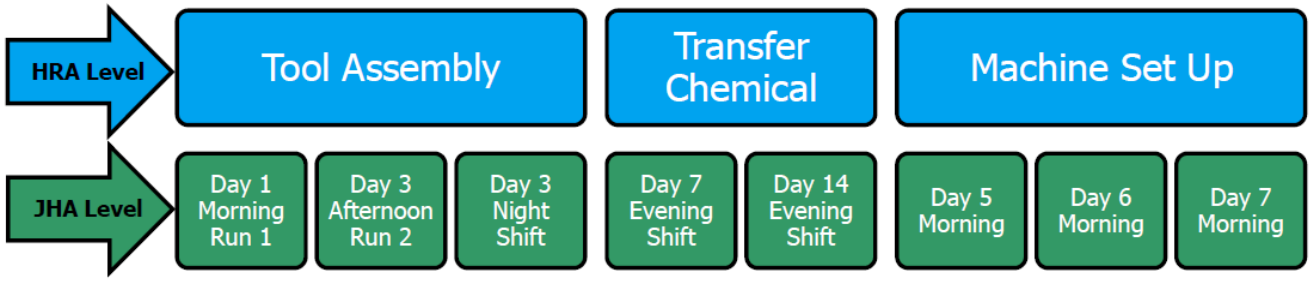
Risk Assessment

Risk Assessment is a process for evaluating the hazards and their associated risks for a process or job.

- In Chinook Consulting, this is also known as a Hazard Risk Assessment (HRA) and a Job Hazard Analysis (JHA)
- Elsewhere, Job Safety Analysis (JSA), Hazard Assessment Certification (HAC), Activity Hazard Analysis (AHA), etc.

What is the difference between HRA and JHA?

- **HRA** focuses on a job at a higher level – from an „overall" perspective including anytime that job is performed
- **JHA** focuses on a specific application of that job which will cause the risks to vary depending on the specific location, time of day, seasonal weather, number of workers, experience of workers, etc.



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Stop Work Authority

The obligation of any employee or contract employee to stop an activity when control of the HSE hazards is not clearly established or understood.

HRA – Risk Matrix

Likelihood	Rating	Consequence 1	2	3	4	5
	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

Likelihood

Level	Description	Quantitative Description
1	Improbable	Never Occurred (Worldwide). Very unlikely, not known to have happened.
2	Remote	Not expected, nor anticipated to occur – Occurred in Industry worldwide, unlikely but has happened
3	Rare	Occurred in our Operations (Worldwide). Occurs Rarely - Longer than every 10 years
4	Probable	Once every Several Years - Might Occur Every 1-3 Years, or at least once in 10 years
5	Frequent	Likely to occur several times a year

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Consequence and Severity

Severity	Safety	Environment Impact	Business Interruption	Asset Damage	Negative Public Image Exposure
1	No significant increased potential for personnel injury	Completely Reversable $0 to $10k	$0 to $10k	Asset damage $ 0 to $10 M	No Outside Coverage
2	Increased risk for minor personnel injury	Minor mitigation efforts required for total reversal $10k to $100k	$10k to $100k	Asset damage $ 10 to $500 M	Local Coverage
3	Increased risk for medical treatment	Moderate mitigation efforts required for total reversal $100k to $1M	$100k to $1M	Asset damage $ 500M to $5 MM	Provincial Coverage
4	Increased risk for serious injury or permanent partial disability;	Partial mitigation possible through prolonged and resource intensive effort $1M to $10M	$1M to $10M	Asset damage $ 5M to $10 MM	Regional Coverage
5	Increased risk for one or more permanent disabilities or fatalities;	Irrevocable loss, with partial recoverable and effort in excess of $10M	>$10M	Asset damage > $10M	National Coverage

Evaluation

If an existing or potential hazard to workers is identified during a hazard assessment, a Prime Contractor must take measures to eliminate the hazard, or if elimination is not reasonably practicable, control the hazard.

If reasonably practicable, the Prime Contractor must eliminate or control a hazard through the use of engineering controls.

If a hazard cannot be adequately controlled using engineering controls, the Prime Contractor must use administrative controls that control the hazard to a level as low as reasonably achievable.

If the hazard cannot be adequately controlled using engineering and/or administrative controls, the Prime Contractor must ensure that the appropriate personal protective equipment (PPE) is used by workers affected by the hazard.

The Prime Contractor may use a combination of engineering controls, administrative controls, and personal protective equipment if there is a greater level of worker safety because a combination is used.

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Contractors and subcontractors should notify the appropriate supervisor of any hazard they notice on the worksite. Hazard reports can be given verbally or in writing, see Risk Assessment form. Your hazard report should include:

- A description of the hazard and its location
- The Consequence and Likelihood associated with the Hazard
  - The Risks it presents
- Control measures needed and interim actions taken
- The Mitigated Risk

	Score 1 - 4	Score 5 - 10	Score 12 - 16	Score 17 & 25
RISK or IMPACT CONSEQUENCE SCORE MULTIPLIED BY FREQUENCY SCORE	**Low Risk.** No Mitigation Required. Follow established procedures and precautions.	**Medium Risk with Controls Verified**. No mitigation required where controls can be verified as functional. ***ALARP**** should be evaluated, as necessary. Ensure measures to reduce risk or impact are in place.	**Significant Risk**. Manage risk utilizing prevention and/or mitigation ***with priority***. Promote issue to appropriate management level with commensurate risk assessment detail. Do not proceed with work. Additional assessment and controls are required to reduce the risk or impact. Implement specific measures identified to reduce risk or impact. Only proceed after controls are in place.	**High Risk.** Manage risk utilizing prevention and/or mitigation ***with highest priority***. Promote issue to appropriate management level with commensurate risk assessment detail. Do not proceed with work. Stop Work required.

* - ALARP, which stands for "as low as reasonably practicable", or ALARA ("as low as reasonably achievable"), is a term often used in the regulation and management of safety-critical and safety-involved systems. The ALARP principle is that the residual risk shall be reduced as far as reasonably practicable.

For a Hazard Risk Assessment (HRA) use *Form 6 – HRA Form* from the **Appendix - Forms**

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WORKPLACE VIOLENCE

Violence means the threatened, attempted or actual conduct of a person that causes or is likely to cause physical injury. Violence whether acted upon or by any Chinook Consulting Services subcontractor will not be tolerated.

Acts of violence can take the form of physical contact. Abuse in any form erodes the mutual trust and confidence that are essential to (this employer's) operational effectiveness.

Acts of violence destroy individual dignity, lower morale, engender fear and break down work unit cohesiveness.

Acts of violence may occur as a single event or may involve a continuing series of incidents. Violence can victimize both men and women and may be directed by or towards (this organization's) workers, contractors, visitors and members of the public.

If any Contractor is acted upon in a threatening manner, action should be taken:

How to recognize workplace violence:

Most people think of violence as a physical assault. However, workplace violence is a much broader problem. It is any act in which a person is abused, threatened, intimidated or assaulted in his or her employment. Workplace violence includes:

- **threatening behavior** - such as shaking fists, destroying property or throwing objects.
- **verbal or written threats** - any expression of an intent to inflict harm.
- **harassment** - any behavior that demeans, embarrasses, humiliates, annoys, alarms or verbally abuses a person and that is known or would be expected to be unwelcome. This includes words, gestures, intimidation, bullying, or other inappropriate activities.
- **verbal abuse** - swearing, insults or condescending language.
- **physical attacks** - hitting, shoving, pushing or kicking.

Rumors, swearing, verbal abuse, pranks, arguments, property damage, vandalism, sabotage, pushing, theft, physical assaults, psychological trauma, anger-related incidents, rape, arson and murder are all examples of workplace violence.

Workplace violence is not limited to incidents that occur within a traditional workplace. Work-related violence can occur at off-site business-related functions (conferences, trade shows), at social events related to work, in clients' homes or away from work but resulting from work (a threatening telephone call to your home from a client).

The policy, procedures, and workplace arrangements that effectively minimize or eliminate workplace violence and the appropriate response to workplace violence, including how to obtain assistance:

- The victim should make his or her feelings known to the offending person, directly or with the assistance of a third party. The offending person needs to be made aware that his or her actions ore considered offensive.
- Report the incident to the Chinook Consulting Services office.

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- Report the incident to the Client's representative.
- Consult health professional of your choice if you experience any injury or adverse symptom.
- Complete an incident report and send it to the office as soon as possible after the incident, noting the date, time and nature of the offence.
- Any and all incidents reported will be followed through on and investigated if deemed necessary. No action shall be taken against an individual for making a complaint unless the complaint is made maliciously or without reasonable and probable grounds.
- No employee, contractor or other individual affiliated with this organization shall subject any other person to violence.

Procedures for reporting, investigating, and documenting incidents of workplace violence, methods used to educate workers on the company's workplace violence program:

- Screen potential workers for unhealthy behavior characteristics by requiring the submission of satisfactory Criminal Records and Child Welfare background check prior to hiring.
- Communicate the commitment to non-violence.
- Ensure all workers are conscious of current emergency procedures.
- Ensure that one main entrance is used and all other exterior doors are kept locked from the outside.
- Require all visitors to report to the main office immediately and ask for photo identification from unfamiliar visitors.

If someone is angry or hostile:

- stay calm and listen to the entire complaint
- maintain eye contact
- be courteous and patient
- keep the discussion centered on resolving the complaint
- don't set unrealistic goals or make promises that can't be kept

Procedure

No employee/subcontractor or any person working with/for Chinook Consulting shall subject any other person to workplace violence or allow the conditions that create or support workplace violence. Any employee who subjects any other person at a Chinook Consulting worksite to workplace violence may be subject to disciplinary action up to and **including dismissal from employment/contract termination.**

Harassment and Violence Prevention

Chinook Consulting Services strictly prohibits all types of harassment and violence in the workplace. Harassment based on protected characteristics such as sex, race, national origin, religion, disability or age is illegal and will not be tolerated. Actual or threatened violence is strictly prohibited.

Chinook Consulting Services has developed a Harassment and Violence Prevention policy that establishes complaint procedures and disciplinary penalties that may be imposed for violation of the policy by a Chinook Consulting Services employee.

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Discipline Policy

All employees, contractors and subcontractors are required to perform their jobs safely, competently and efficiently without jeopardizing their own personal well being, the safety of others and/or property. At all times, workers shall strive to be in compliance with the applicable government legislation, the company safety standards and our client's relevant rules and regulations.

Individuals or subcontractors who contravene any of the above safety and performance standards shall be held personally responsible and subject to disciplinary action.

Depending on the severity of the noncompliance, disciplinary action may include: verbal warning, written reprimand, unpaid suspension from work and/or dismissal.

Each noncompliance shall be thoroughly reviewed on an individual basis. The extent of disciplinary action shall be determined by senior management and dealt with accordingly.

Reprimand for the Policy Infraction or Infractions

(Sub-Standard Behavior)

Verbal: This includes discussion of the violation and a warning of more severe action, should the offence be repeated.

Written: This involves discussion of the violation and a written record of the violation and reprimand. A copy is given to the employee and another is put in the employee's personal file. Warning of more severe action should the offence be repeated is also given.

Suspension without Pay: This includes release from all job responsibilities without pay for a period of time determined by the severity of the sub-standard act. Suspensions will be documented in a letter to the employee and a copy of the letter will be placed in the employee's personal file. The employee is informed at this point that discharge will result if the sub-standard behavior is repeated.

Discharge: This will be used when all other attempts to correct the employees substandard behavior have failed, subcontractors may face discharge at any time. Formal discharges will be documented in a letter to the employee. This will only be taken as a final step when sound judgment indicates no other alternative.

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WORKING ALONE SAFELY

Under normal circumstances, no Chinook Consulting Services subcontractor should find themselves working on a well site alone. If for any reason a subcontractor should find themselves on a location alone, the subcontractor should inform the office immediately of the situation.

The only other time when a Chinook Consulting Services subcontractor will be working alone is while driving.

All contractors should call/email the office when leaving home to go to a location. They should then again make contact with the office once arriving on location or stopping for the night. All contractors leaving the public road system and entering onto a private road system (i.e. logging road or radio controlled road), should be equipped with a two way radio.

There is not a foreseeable circumstance that would have a contractor on a well site alone, but in the event that this would occur the contractor should call the office immediately and report their alone status. Contact should be maintained with the office on a four hour schedule until the “alone” status is resolved. When working alone, the subcontractor should have an operating cell phone and stay in contact with the Chinook Consulting Services office.

The subcontractor should never endanger themselves by attending to any part of the drilling operation when alone and should carry their cell phone on their person at all times.

Never venture to isolated spots on location. When on or around the rig, inform the driller of your whereabouts. When leaving location for any reason, inform the client’s representative.

Safety Rules

- Working Alone
- Under normal circumstances there is no reason for any contractor to be on a location alone.
- In the event of being alone on the worksite the contractor must upon arrival to the site, inform the office of his/her alone status.
- The contractor must have an operating cell phone and contact with the office must be maintained every 4 hours.
- The subcontractor should never endanger themselves by attending to any part of the drilling operation when alone and should carry their cell phone on their person at all times.
- Never venture to isolated spots on location. When on or around the rig, inform the driller of your whereabouts. When leaving location for any reason, inform the Client’s representative.

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EMERGENCY PREPAREDNESS AND PROCEDURES

All Chinook Consulting Services employees and subcontractors need to be trained in First-Aid, CPR, TDG, WHMIS and H2S. Chinook Consulting Services will supply these courses, but it's up to the contractor to notify or re-register for the appropriate courses before they expire. All prior and future emergency response records will be and are kept and stored on secure company servers.

Each subcontractor's vehicle needs to be equipped with the following equipment:

- First-Aid kit, clean and maintained
- Tow rope or chain
- Fire extinguisher
- Blanket & climate appropriate outer wear
- Water
- Candles
- Flashlight

The subcontractor needs to make these items available on the work site as well as in their vehicle.

Because we are subcontractors and are usually the only Chinook Consulting Services representative on a jobsite we must be aware of, and adhere to, the jobsite safety rules and emergency response procedures of the Prime Contractor.

Types of Emergencies

We need to make ourselves aware of the potential emergency situations, such as:

- Working alone (driving)
- H2S gas release
- Blow out, uncontrolled well
- Fire/Explosion
- Fall/death or other accidents
- Natural disaster, e.g. rain, hail, tropical storm, hurricane or tornado

Emergency Response

As contractors we need to make ourselves aware of and follow the Client's Emergency Response Procedures. All employees and subcontractors are expected to take part in the development of the ERP.

Upon arrival on any new worksite, subcontractors will review the site specific ERP with the Client's representative and retain a copy for our records. The subcontractor should make him/herself familiar with location of safety facilities, i.e. first-aid and medic's station or trailer, emergency medical transportation for any injured worker, the location of fire extinguishers, first-aid kits, fire blankets, muster stations, power shutoffs, etc.

All subcontractors or employees should take part in a rig safety meeting at least once a day and take part in all emergency response drills, e.g. H2S drills.

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At each location, subcontractors will investigate local emergency officials' phone numbers and have them available if an emergency should occur. Numbers to be included are: local police, fire department, poison control, ambulance, etc.

If a well or facility contains levels of H2S, a formal emergency response plan may be required. In these situations, an Area Facility or Site-Specific Emergency Response Plan (ESP) will be available that outlines applicable emergency procedures. The Client's Representative on site is responsible for activating the plan and ensuring that personnel on-site are familiar with their emergency responsibilities.

At no time should a Chinook Consulting Services contractor be on a Prime Contractor's location alone. If asked to attend to a rig alone, e.g. rig watch, a contractor should decline.

All Chinook Consulting Services employees and subcontractors need to be trained in First-Aid, CPR, TDG, WHMIS and H2S. Chinook Consulting Services will supply these courses, but it's up to the contractor to notify or re-register for the appropriate courses before they expire.

Each subcontractor's vehicle needs to be equipped with the following equipment:

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- Tow rope or chain
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- Water
- Candles
- Flashlight

Fire Emergency

Training and fitness of workers with regard to their involvement in fire prevention, evacuation and firefighting.

Adequate training tailored to the workplace - This provides for flexibility to adapt to the level of risk in the workplace.

Chinook employee would be expected to know the area fire/evacuation alarm signal and the response to be made when the signal is activated.

At well site (higher level of risk), workers must use a respirator or other specialized equipment to evacuate, more instruction is required, along with the availability of the necessary equipment. If a worker is expected to be part of the "workplace response" to contain a fire or other emergency, then training and instruction should be more detailed, and clearly define the limits for response due to available equipment and training.

Workers assigned to firefighting to be "physically capable of performing assigned duties safely and effectively before being permitted to do them". A worker may become unfit for such duties temporarily through injury or more permanently through aging or loss of physical condition.

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The Prime Contractor must ensure a worker is not permitted to undertake firefighting or emergency response duties if, at the time of the incident, the individual is not physically able to do the assigned duties safely and effectively.

Classification of Fires

- Class "A": Fires in ordinary materials such as wood, paper, rags, rubbish, etc.
- Class "B": Fires in petroleum products such as grease, oil and paint.
- Class "C": Fire in combustible metals such as magnesium, titanium and sodium.

Fire Extinguishers

The most common fire extinguisher are cartridge-operated dry-chemical extinguishers. They are rated as either ABC or BC type and can be used on any A, B or C fires. Class D fires require special equipment. Only low temperature (nitrogen) cartridges are to be used in ABC's fire extinguishers.

Access to fire fighting equipment must never be blocked by any material, equipment or vehicles. Discharged fire extinguishers must be immediately replaced with fully charged units and recharged.

Emergency Evacuation

Field

As contractors we need to make ourselves aware of and follow the Client's Emergency Response Procedures. All employees and subcontractors are expected to take part in the development of the ERP.

Upon arrival on any new worksite, subcontractors will review the site specific ERP with the

Client's representative and retain a copy for our records. The subcontractor should make him/herself familiar with location of safety facilities, i.e. first-aid and medic's station or trailer, emergency medical transportation for any injured worker, the location of fire extinguishers, first-aid kits, fire blankets, muster stations, power shutoffs, etc.

All subcontractors or employees should take part in a rig safety meeting at least once a day and take part in all emergency response drills, e.g. H2S drills.

Emergency evacuation dril0ls shall be conducted monthly at wellsite.

Discuss gather-up point, evacuation route, nearby hospitals, who are the first responders, etc.

At each location, subcontractors will investigate local emergency officials' phone numbers and have them available if an emergency should occur. Numbers to be included are: local police, fire department, poison control, ambulance, etc.

If a well or facility contains levels of H2S, a formal emergency response plan may be required. In these situations, an Area Facility or Site-Specific Emergency Response Plan (ESP) will be available that outlines applicable emergency procedures, evacuation procedures, etc.

The Client's Representative on site is responsible for activating the plan and ensuring that personnel on-site are familiar with their emergency responsibilities.

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Office

Each office shall have an emergency evacuation plan and shall conduct an evacuation drill annually.

Chinook Consulting employees shall be familiar with emergency evacuation procedures, evacuation routes, and specific responsibilities. Office doors shall be closed, but left unlocked during an emergency evacuation. Elevators shall not be used. Use handrails when ascending/descending stairs. Hallways, entrances, and exits shall be kept free of obstructions. Material shall be stored in an orderly fashion and work areas kept clean and free of tripping hazards such as cords, drawers, books, files, etc.

Natural Disaster

Natural disasters can include any or all of rain, hail, tropical storm, hurricane or tornado. Once arrived at the well site the Contractor must read and understand the Operator's Natural Disaster Emergency Process and Procedures. The Contractor should know the followings:

- The immediate actions to protect human life in case of a Natural Disaster
- Ways of alerting the First Responders, Chinook and Operators office
- Protect, if possible, equipment and assets
- Evacuation procedures

Emergency Procedures, Evacuation and Rescue

Emergency Procedures

As contractors we need to make ourselves aware of and follow the Client's Emergency Response Procedures. All employees and subcontractors are expected to take part in the development of the ERP.

Upon arrival on any new worksite, subcontractors will review the site specific ERP with the Client's representative and retain a copy for our records. The subcontractor should make him/herself familiar with location of safety facilities, i.e. first-aid and medic's station or trailer, emergency medical transportation for any injured worker, the location of fire extinguishers, first-aid kits, fire blankets, muster stations, power shutoffs, etc.

All subcontractors or employees should take part in a rig safety meeting at least once a day and take part in all emergency response drills, e.g. H2S drills.

At each location, subcontractors will investigate local emergency officials' phone numbers and have them available if an emergency should occur. Numbers to be included are: local police, fire department, poison control, ambulance, etc.

If a well or facility contains levels of H2S, a formal emergency response plan may be required. In these situations, an Area Facility or Site-Specific Emergency Response Plan (ESP) will be available that outlines applicable emergency procedures. The Client's Representative on site is responsible for activating the plan and ensuring that personnel on-site are familiar with their emergency responsibilities.

At no time should a Chinook Consulting Services contractor be on a Prime Contractor's location alone. If asked to attend to a rig alone, e.g. rig watch, a contractor should decline.

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Written evacuation procedures appropriate to the risk must be developed and implemented by the Prime Contractor to: (a) notify workers, including the first aid attendant, of the nature and location of the emergency, (b) evacuate workers safely, (c) check and confirm the safe evacuation of all workers, (d) notify the fire department or other emergency responders, and (e) notify adjacent workplaces or residences which may be affected if the risk of exposure to a substance extends beyond the workplace. Notification of the public must be in conformity with the requirements of other jurisdictions, including provincial and municipal agencies.

Rescue

Rescue is not allowed to be performed by our workers and is the responsibility of Prime Contractor.

Procedures for spill clean up and re-entry

If workers/subcontractors are required to control a release of a hazardous substance, to perform cleanup of a spill, or to carry out testing before re-entry, the Prime Contractor provides (a) adequate written safe work procedures, (b) appropriate personal protective equipment which is readily available to workers and is adequately maintained, and (c) material or equipment necessary for the control and disposal of the hazardous substance.

Fire Prevention and Protection

The best means of fighting fire is to prevent it from starting. The following three components are required before a fire can start and continue to burn:

- Fuel (in form of vapor or liquid)
- Oxygen (in the atmosphere)
- Heat (temperatures high enough to ignite fuel air mixture)

Removal of any one of these three components will prevent a fire or cause a fire to go out.
To prevent fires, workers should:

- Always follow safe work practices when handling flammable or explosive materials.
- Store oily rags, waste material, paper and combustibles in metal containers with lids and empty containers regularly.
- Avoid overloading electrical outlets.
- Control vegetation around tanks, fire walls, buildings and well sites.

Fire Extinguishers

The most common fire extinguisher are cartridge-operated dry-chemical extinguishers. They are rated as either ABC or BC type and can be used on any A, B or C fires. Class D fires require special equipment. Only low temperature (nitrogen) cartridges are to be used in ABC's fire extinguishers.

Access to fire fighting equipment must never be blocked by any material, equipment or vehicles. Discharged fire extinguishers must be immediately replaced with fully charged units and recharged.

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Working Alone

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The only other time when a Chinook Consulting Services subcontractor will be working alone is while driving.

All contractors should call/email the office when leaving home to go to a location. They should then again make contact with the office once arriving on location or stopping for the night. All contractors leaving the public road system and entering onto a private road system (i.e. logging road or radio-controlled road), should be equipped with a two-way radio.

There is not a foreseeable circumstance that would have a contractor on a well site alone, but in the event that this would occur the contractor should call the office immediately and report their alone status. Contact should be maintained with the office on a four-hour schedule until the “alone” status is resolved. When working alone, the subcontractor should have an operating cell phone and stay in contact with the Chinook Consulting Services office.

The subcontractor should never endanger themselves by attending to any part of the drilling operation when alone and should carry their cell phone on their person at all times.

Never venture to isolated spots on location. When on or around the rig, inform the driller of your whereabouts. When leaving location for any reason, inform the client’s representative.

Natural Disaster

Natural disasters can include any or all of rain, hail, tropical storm, hurricane or tornado.

Steps to take in a natural disaster:

In the event of a tornado;

- Leave the well site trailer and get into a permanent structure or lie on the ground, ditch or ravine.
- Do not get into your vehicle or try to out drive a tornado.
- Use your arms to protect your head and neck.
- Stay away from bridges and overpasses.

In the event of lightning or hail;

- Stay indoors, if outdoors, find immediate shelter, e.g. building or vehicle.
- Large hailstone may break glass, stay away from windows & skylights, close curtains or blinds if it’s safe to do so to prevent glass from flying into the room.
- Do not use phones or make contact with metal objects (e.g. stoves, metal pipes or sinks) during the storm.
- Unplug appliances to protect from surges.

Steps to take in case of any emergency

- All work affected by the emergency must be stopped immediately and workers must leave to a safe location.

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- Sound an alarm.
- Assess the situation and protect yourself.
- Give assistance to other workers as required. Assistance should only be undertaken if it can be done safely.
- Give first aid and call for medical aid if required.
- Call for pre-arranged emergency transportation of any injured worker.
- Secure the surrounding area.
- Protection of equipment is the last priority. Equipment should only be rescued if it can be done safely. The ERP will be reviewed yearly or whenever new hazards are reported.

Communications

Effective communications must be maintained between the workers engaged in rescue or evacuation and support persons.

Rescue

All rescue efforts should be coordinated and performed by the First Responders. In case of a Life and Death situation the Contractor should subordinate to the Prime Contractor Rescue procedures. A Contractor should not attempt any rescue action if is not trained.

Equipment

- Workers performing rescue or evacuation must wear personal protective clothing and equipment appropriate to the hazards likely to be encountered.
- Harnesses must meet the requirements of the applicable standards or code issued by the International Union of Alpinist Associations, National Fire Protection Association or Canadian Standards Association.
- When a platform suspended from a crane or hoist or attached to a crane boom is used for rescue, an injured worker on the platform is not required to use a personal fall protection system, if
    - the worker is belted to a stretcher and the stretcher is securely fastened to the platform floor
    - the platform has a safety strap that will prevent the platform from falling more than 15 cm
- if the platform becomes dislodged from the hook.

Inspection of equipment

Ropes and associated equipment must be inspected visually and physically by qualified workers after each use for rescue, evacuation or training purposes.

Equipment must not be used after:

- has been overstressed,
- has been subject to temperatures above 150°C (300°F), or
- shows significant damage due to contact with chemicals or due to any other cause.

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Ropes and associated rigging equipment used only for rescue or evacuation or training in such procedures must

- be of low stretch (static) kernmantle construction or equivalent,
- when new, have a minimum safety factor of 10 to 1, based upon a one-person load of 140 kilograms (300 pounds), and
- be replaced at intervals stated by the manufacturer, but not exceeding 5 years.

A worker suspended on a rope for rescue purposes other than from a helicopter must where practicable be secured to an independent lifeline or belay line.

Investigating and Reporting Incidents

It is your responsibility and duty, as an employee or a contractor, to report unsafe acts or conditions. Health, Safety and Environment incidents on contractor sites must be reported.

All incidents including injuries, work-related illnesses, and vehicle accidents and property damage, must be reported to your supervisor, the appropriate government agencies and the Company Representative on site as soon as possible, and within 24 hours. Failure to report an injury may impede and/or result in loss of compensation. Hazards that have the potential for causing an incident (i.e. near miss) must also be reported to the Company Representative.

The Following Forms that can be found in **Appendix – Forms** may be used

- Form 1 – Hazard Report Form
- Form 2 – Worksite Safety Inspection Form
- Form 3 – On-Site Inspection
- Form 4 – Incident and Accident Report
- Form 7 – Emergency Contacts
- Form 8 – Policy/Regulation Violation

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ERGONOMICS

Ergonomics is matching the job to the worker and product to the user. Ergonomics and human factors are often used interchangeably in workplaces. Both describe the interaction between the worker and the job demands. The difference between them is ergonomics focuses on how work affects workers, and human factors emphasizes designs that reduce the potential for human error.

Ergonomic hazards refer to workplace conditions that pose the risk of injury to the musculoskeletal system of the worker. Examples of musculoskeletal injuries include tennis elbow (an inflammation of a tendon in the elbow) and carpal tunnel syndrome (a condition affecting the hand and wrist). Ergonomic hazards include repetitive and forceful movements, vibration, temperature extremes, and awkward postures that arise from improper work methods and improperly designed workstations, tools, and equipment.

This also includes information on health and safety concerns when working shift work and extended work days.

Ergonomics in the workplace

Fundamentals for the Flexible Workplace Variability and compatibility with desk components, that flex from individual work activities to team settings. Workstations provide supportive ergonomics for task-intensive environments.

Outside of the discipline itself, the term 'ergonomics' is generally used to refer to physical ergonomics as it relates to the workplace (as in for example ergonomic chairs and keyboards). Ergonomics in the workplace has to do largely with the safety of employees, both long and short-term. Ergonomics can help reduce costs by improving safety. This would decrease the money paid out in workers' compensation. For example, over five million workers sustain overextension injuries per year. Through ergonomics, workplaces can be designed so that workers do not have to overextend themselves and the manufacturing industry could save billions in workers' compensation.

When factors that may expose workers to a risk of MSI have been identified, the employer must ensure that the risk to workers is assessed.

Workplaces may either take the reactive or proactive approach when applying ergonomics practices. Reactive ergonomics is when something needs to be fixed, and corrective action is taken. Proactive ergonomics is the process of seeking areas that could be improved and fixing the issues before they become a large problem. Problems may be fixed through equipment design or task design. Equipment design changes the actual, physical devices used by people. Task design changes what people do with the equipment. Environmental design changes the environment in which people work, but not the physical equipment they use.

Factors in the workplace that may expose workers to a risk of musculoskeletal injury (MSI).

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Some of the tasks we perform at work, such as lifting, reaching, and repeating the same movements, can strain our bodies. In some situations, these tasks can result in an injury to the muscles, tendons, ligaments, nerves, blood vessels, and joints of the neck, shoulders, arms, wrists, legs, and back. This type of injury is called a musculoskeletal injury, or MSI.

The physical risk factors for MSI are the physical demands of a task, including:

- Force
- Repetition
- Work posture
- Local contact stress

For each of these risk factors, it is important to consider duration (how long) and magnitude (how much).

Other risk factors that can affect these physical demands include:

- Layout and condition of the workplace or workstation—for example, a workstation that is too high or too low can create awkward working postures.
- Characteristics of objects handled—for example, an object that is slippery or has no handles may cause awkward postures and require greater force to handle the object in a stable manner.
- Environmental conditions of the workplace—for example, cold temperatures or drafts reduce blood flow to the hands and arms, requiring more grip force.
- Organization of work tasks—for example, a worker performing a variety of different tasks throughout the day is likely at less risk of injury than a worker who has little variety and is exposed to the same risk factor for a longer time.

Workers may notice pain, numbness, tingling, or weakness while on the job. Sometimes pain is just part of the normal human condition and can be ignored. Other times, it can be a manifestation of an injury or disease.

To lessen the likelihood of an injury or disease, it may be necessary to reduce exposures to physical movements at work that have the potential to place workers at risk of injury (like strain) or disease (like tendinitis or carpal tunnel syndrome).

It is important to note that each individual's response to a physical exposure is different. The human body was designed to be active, so eliminating all physical activity is also unhealthy.

Signs (which can be observed) could include swelling, redness, and/or difficulty moving a particular body part. Symptoms (which can be felt but not observed) could include numbness, tingling, and/or pain.

Signs and symptoms of MSI may appear suddenly—for example, from a single incident—or they may appear gradually over a longer period. If you are experiencing signs or symptoms of MSI, inform your supervisor and report to the first aid attendant, if there is one. An MSI may be treated more effectively if it is discovered and reported early.

Identify risk factors

After identifying particular jobs that pose a risk of MSI to workers, the employer needs to identify the MSI risk factors for each of those jobs. The employer must consult with the joint health and safety

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committee or worker health and safety representative about risk identification. The employer may also consult with workers, since they often know the job best.

There are several tools (such as checklists and worksheets) for identifying risk factors in a job.

These tools help identify risk factors that require further investigation to assess the risk to workers. Some of these tools take duration and magnitude into account along with the risk factors to help the employer establish priorities for risk control.

Employers may use other methods to identify risk factors as long as they consider the risk factors listed in the Occupational Health and Safety Regulation.

How workers can help identify risk factors in their jobs

Workers/subcontractors can help in the process of identifying risk factors. Workers often have the best insights into the demands of their job and are in a good position to help identify risks and prevent MSI. Workers must report any work-related injuries and signs or symptoms of MSI without delay.

If a worker reports an injury requiring medical attention or an unsafe condition that could lead to injury, the employer must investigate.

An investigation will help to identify risk factors that contributed to the injury or condition and lead to implementing controls to eliminate or minimize the risk factors.

Understanding the Risks of Musculoskeletal Injury (MSI)

Think about your job and all the different duties. For each duty, try to identify which, if any, of the four physical risk factors (force, repetition, work posture, local contact stress) are present. Particularly think about whether these affect the same body part. Then consider these questions:

Does the total time (duration) you spend doing a particular duty increase the physical demands on your body? Do any of the following increase the physical demands on your body?

- Layout of your workplace or workstation (such as work surfaces that are too high or too low or that result in excessive reaching or bending distances)
- Characteristics of the objects you handle (such as objects that are too large to handle or that have their weight unevenly distributed)
- Environmental conditions (such as an atmosphere or objects cold enough to make the hands cold while the worker handles objects)
- Organization of your work duties (such as a lack of variety of tasks, with the result that your muscles do not have a chance to rest and recover)

After you answer these questions, you will have a fairly good idea of what risk factors you are exposed to in your work. You can probably see which duties place you at the most risk of MSI and where changes are most needed.

You may also have some suggestions for practical solutions to reduce or eliminate some of the these risk factors.

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Discuss your answers and suggestions with your supervisor. You might also talk to members of the joint committee or your worker health and safety representative about the risks of MSI.

The employer must monitor the effectiveness of the measures taken to comply with the Ergonomics (MSI) Requirements and ensure they are reviewed at least annually. When the monitoring required identifies deficiencies, they must be corrected without undue delay.

Key questions

If you may be exposed to a risk of MSI in your job, you must be educated in risk identification related to your work. This includes recognizing the early signs and symptoms of MSI and their potential health effects. You should be able to answer the following questions:

- What are some early signs and symptoms of MSI?
- What person would you report these signs and symptoms to?
- What can happen if you ignore early signs and symptoms of MSI?
- What are the risk factors in your job that could lead to MSI?

Seating Ergonomics

The best way to reduce pressure in the back is to be in a standing position. However, there are times when you need to sit. When sitting, the main part of the body weight is transferred to the seat. Some weight is also transferred to the floor, back rest, and armrests. Where the weight is transferred is the key to a good seat design. When the proper areas are not supported, sitting in a seat all day can put unwanted pressure on the back causing pain.

The lumbar (bottom five vertebrate in the spine) needs to be supported to decrease disc pressure. Providing both a seat back that inclines backwards and has a lumbar support is critical to prevent excessive low back pressures. The combination which minimizes pressure on the lower back is having a backrest inclination of 120 degrees and a lumbar support of 5 cm. The 120 degrees inclination means the angle between the seat and the backrest should be 120 degrees. The lumbar support of 5 cm means the chair backrest supports the lumbar by sticking out 5 cm in the lower back area.\

Another key to reducing lumbar disc pressure is the use of armrests. They help by putting the force of your body not entirely on the seat and back rest, but putting some of this pressure on the armrests. Armrest needs to be adjustable in height to assure shoulders are not overstressed.

What is a "good" sitting body position?

There is no one or single body position that is recommended for sitting. Every worker can sit comfortably by adjusting the angles of their hips, knees, ankles and elbows. The following are general recommendations. Occasional changes beyond given ranges are acceptable and sometimes beneficial.

- Keep the joints such as hips, knees and ankles open slightly (more than 90Deg). Keep the upper body within 30Deg of an upright position.
- Always keep the head aligned with the spine.
- Keep upper arms between vertical and 20Deg forward.
- Keep elbows at an angle between 90 Deg and 120 Deg.

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- Keep forearms between horizontal and 20 Deg up. Support the forearms. Keep the wrists straight and aligned with the forearms.
- Place the working object so that it can be seen at viewing angle of 10Deg to 30Deg below the line of sight.
- Tuck chin in and do not bend forward when looking down and forward.
- Change positions frequently but remain within recommended ranges.
- Alternate crossed legs.
- Avoid bending to the side.
- Avoid bending forward.
- Do not slouch.
- Do not sit for more than 50 minutes at a time.

The Following Forms that can be found in **Appendix – Forms** may be used

- Form 1 – Hazard Report Form
- Form 4 – Incident and Accident Report
- Form 8 – Policy/Regulation Violation

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DRUG AND ALCOHOL POLICY - BEST PRACTICES

Scope

This policy is applicable to all Chinook Consulting (COMPANY) employees/subcontractors working in Canada within the oil and gas industry.

Roles and Responsibilities of Employees Involved in Our Drug and Alcohol Program

The roles and responsibilities should cover all levels of management, administration and field operations.

Employees must:

- employees should be accountable and be aware of their role as it relates to the drug and alcohol policy,
- remain fit to work at all times when schedule to be on call and take responsibility to ensure their own safety and the safety of others,
- follow appropriate treatment if deemed necessary, and
- use medications responsibly, be aware of potential side effects and notify their supervisor of any potential unsafe side effects where applicable

Supervisors:

- should have clear roles and responsibilities set out to manage the risks associated with drug and alcohol use,
- be knowledgeable about the company's alcohol and drug policy and procedures,
- ensure they comply with the standards as part of their responsibility to perform their work-related activities in an effective and safe manner,
- be knowledgeable about the use of alcohol and drugs and be able to recognize the symptoms of the use of alcohol and drugs,
- take action on performance deviations, and
- take action on reported or suspected alcohol or drug use by employees

Management, Administration and Field Operations employees must:

- provide a safe workplace and provide prevention programs that emphasize awareness, education and training with respect to the use of alcohol and drugs,
- ensure effective employee assistance services are available to employees,
- assist employees in obtaining confidential assessment, counselling, referral and rehabilitation services,
- actively support and encourage rehabilitation activities and re-employment opportunities where applicable,
- ensure completion of supervisory training and awareness in dealing with the use of alcohol and drugs in the workplace,

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- ensure that all employees understand the existence of and content of the policy and procedures as part of the employee's orientation, and
- ensure that the alcohol and drug testing is performed according to the standards set out in this document.

Policy Endorsement

The Drug and Alcohol Policy is signed and dated by Senior Management. The Drug and Alcohol Policy has been (or will be) signed by Senior Management.

Drug and Alcohol Policy Statement

The use, abuse, reporting to work with detectable amounts in the system, bringing onto COMPANY premises, COMPANY property, possession, transfer, storage, concealment, promotion or sale of the following substances and other items as listed below by employees of COMPANY is strictly prohibited.

Assistance is available for employees who struggle with addiction without any resulting discipline

The possession of illegal drugs, unauthorized controlled substances, look-alikes, inhalants of abuse, designer and synthetic drugs, alcohol or intoxicating beverages (including the presence of any detectable amount in the employee's body while working), and any other drugs or substances which may affect a person's perception, performance, judgment, reactions or senses while working or while on COMPANY business, including any and all drugs declared to be illegal under any Federal or State law is prohibited.

The possession or the reporting to work or working with detectable amounts in the system of alcoholic or intoxicating beverages on COMPANY premises which may affect a employee's mood, senses, responses, motor functions, or alter or affect a person's perception, performance, judgment, reactions or senses while working or while on COMPANY premises, the bringing onto COMPANY premises, or the possession, transfer, storage, concealment, transportation, promotion or sale of alcoholic or intoxicating beverages is prohibited.

The possession or the reporting to work or working with drug-related paraphernalia, including any material or equipment used or designed for use in testing, packaging, storing, injecting, ingesting, inhaling or otherwise introducing into the human body an illegal, unauthorized controlled or dangerous substance as defined by this policy is prohibited. The legal use of prescription drugs prescribed by a licensed physician are permitted, however:

- Employees will immediately inform their supervisor prior to using prescribed drugs or medication on the job.
- The employee whose name appears on the label of the vial will not allow any other company employee, visitor, guest, subcontractor or any other person to consume the prescribed drug or medication.

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Impairment

Impaired persons are prohibited from going to work while under the influence. No person shall enter, remain or be knowingly permitted to enter or remain on site if, in the opinion of management, their ability is so impaired as to endanger their health or safety, or that of another person.

Persons are prohibited from bringing intoxicating substances onto a job site. No person shall possess intoxicating liquor, or illegal drugs or drug paraphernalia at a job site.

No worker is permitted to enter or remain at any workplace while the person's ability to work is affected by alcohol, a drug or other substance so as to endanger the person or anyone else.

The use, possession or sale of these substances will result in disciplinary action.

Note: Detailed drug and alcohol policies may be established by Chinook Consulting to address project specific circumstances

- Do not report to work while under the influence of alcohol or illegal drugs.
- Notify the Prime Contractor's representative if you are taking prescription drugs that can cause drowsiness and may affect your work performance. Your duties may need to be adjusted accordingly.

The Prime Contractor representative must not knowingly permit a person to remain at any workplace while the person's ability to work is affected by alcohol, a drug or other substance so as to endanger the person or anyone else.

Drugs and Alcohol

No Drugs or Alcohol use is permitted on the wellsite and on route to the wellsite.

Smoking

- Smoke only in designated areas!
- Do not carry matches or lighters around the worksite, except when testing gas detectors.

Safety Sensitive Positions and/or Safety Sensitive Job Sites

COMPANY should have a method to determine and define a safety-sensitive position. This could be through a risk matrix or clearly defined and communicated text. A safety sensitive task is defined by the company's work rules but must be consistent with industry standards. COMPANY defines a safety sensitive task is one that could cause serious injury to the employee, his/her co-employees, and/or the public in the event of an incident. Employees performing safety-sensitive tasks are informed of the circumstances when drug and/or alcohol testing may occur. Employees may be tested for impairment following a significant incident, near miss, or report of dangerous behaviour.

Post-incident testing should be conducted as soon as reasonably practical. Testing may also be completed when an individual performing a safety sensitive task reports to work in an unfit condition,

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and there are reasonable grounds to suspect substance abuse. Periodic testing may also occur for persons performing safety sensitive tasks.

Employees performing safety sensitive job tasks and/or job tasks at a site designated as requiring Site Access testing will be tested for the use of drugs and/or alcohol. COMPANY shall clearly define situations when an employee may be subject to drug and alcohol testing. This may include, but is not limited to, pre-access testing, post incident testing, reasonable suspicion testing, and periodic/scheduled testing. Pre-Access testing may be required by the contractor company's hiring clients.

Supervisor Training

Supervisors are provided training on recognition of impairment and appropriate response procedures.

COMPANY should train and educate supervisors to be able to recognize impairment in the workplace, as well as how to properly deal with an impairment situation. This includes recognizing the signs and symptoms of impairment and the procedures to follow when an employee is suspected of being impaired or having a substance abuse problem.

Compliance With Industry Standards

Alcohol testing complies with recognized industry standards (Enform Alcohol and Drug Policy Model and/or the COAA Model for Providing a Safe Workplace). The testing procedures laid out within the policy should be consistent with the standards referenced in the Enform Alcohol and Drug Policy Model and/or the COAA Canadian Model for Providing a Safe Workplace. The employer shall ensure that these standards are communicated to all levels of the company.

Drug testing includes both screening and confirmation tests consistent with recognized industry standards (Enform Alcohol and Drug Policy Model and/or the COAA Model for Providing a Safe Workplace). The policy shall include the process for testing consistent with Enform Alcohol and Drug Policy Model or the COAA Canadian Model for Providing a Safe Workplace. A clear process should be established once the results are confirmed. COMPANY should ensure that a complete and thorough test is being performed to include all substances mentioned within the Enform and COAA guidelines.

Drug and alcohol testing will be with an approved screening company. Employees shall be considered to be unfit for duty if:

- They refuse to submit to a drug and alcohol test where reasonable cause exists or in a post-incident situation,
- They cause any undue delay in submitting to a drug and alcohol test where reasonable cause exists or in a post-incident situation,
- They tamper with or attempt to tamper with a drug and alcohol sample, or
- Both the screening and confirmation tests for alcohol (breathalyser) are equal to, or in excess of, 40 mg/100 ml (0.04%); a positive alcohol test or both the screening and confirmation levels for the specified drugs tested are detected at levels equal to or in excess of the limits set out in the COAA Model Rule.

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Alcohol Testing

General

- The donor is the person from whom a breath or saliva sample is collected. The donor is directed to go to a collection site in order to give a breath or saliva sample,
- The breath alcohol technician (BAT) or the screening test technician (STT) as appropriate establishes the identity of the donor. Photo identification is required. The BAT or STT as appropriate explains the testing procedure to the donor, and
- The company must securely store information about alcohol test results to ensure that disclosure to unauthorized persons does not occur. Breath testing and saliva testing devices are used to conduct alcohol screening tests and must be listed on the National Highway Traffic Safety Administrations (NHTSA) conforming products list.

Breath Testing

- The BAT and the donor complete those parts of the alcohol testing form that are to be completed before the donor provides a breath sample. The BAT explains to the donor how to provide a breath sample and asks the donor to provide a breath sample. The BAT reads the test result and ensures that the test result is recorded on the alcohol testing form after showing the results to the donor.
- The BAT completes the part of the alcohol testing form that is to be completed after the donor provides a breath sample and asks the donor to do so as well.

Confirmation Test

- If a breath alcohol testing device was used for the screening test, an evidential breath alcohol device must be used to conduct the alcohol confirmation test. If a saliva testing device was used for the screening test, the confirmation test will use an evidential breath alcohol testing device.
- The BAT advises the donor not to eat, drink, put anything into his or her mouth or belch before the confirmation test is complete.
- The confirmation test must start not less than fifteen minutes after the completion of the screening test and not more than thirty minutes after the completion of the screening test.
- The BAT explains to the donor how to provide a breath sample and asks the donor to provide a breath sample.
- The BAT reads the test result on the device and shows the donor the result displayed. If the confirmation test result is equal to or in excess of 0.040 grams per 210 litres of breath, the BAT will do an external calibration check (accuracy check) to ensure the device is in working order. The BAT ensures that the test result is recorded on the alcohol testing form. The BAT verifies the printed results with the donor.
- The BAT completes the part of the alcohol testing form that is to be completed after the donor provides a breath sample and asks the donor to do so as well.
- The BAT immediately reports in a confidential manner the test results to the company's designated representative. While the initial communication need not be in writing, the BAT must subsequently provide a written report of the test result to the company's designated representative.

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Drug Testing

- The donor is the person from whom a urine specimen is collected
- The donor is directed to go to a collection site in order to give a urine specimen.
- The collection site person must establish the identity of the donor. Photo identification is preferable. Positive identification by a company representative who holds a supervisory position is acceptable.
- The donor must remove coveralls, jacket, coat, hat or any other outer clothing and leave these garments and any briefcase or purse with the collection site person.
- The donor must remove any items from his or her pockets and allow the collection site person to inspect them to determine that no items are present which could be used to adulterate a specimen.
- The donor must give up possession of any item which could be used to adulterate a specimen to the collection site person until the donor has completed the testing process.
- The collection site person may set a reasonable time limit for providing a urine specimen.
- The collection site person selects or allows the donor to select an individually wrapped or sealed specimen container. Either the collection site person or the donor, in the presence of the other, must unwrap or break the seal of the specimen container.
- The donor may provide his or her urine specimen in private, in most circumstances. The specimen must contain at least forty-five millilitres.
- The collection site person notes on the chain of form any unusual donor behaviour.
- The collection site person determines the volume and temperature of the urine in the specimen container.
- The collection site person inspects the specimen and notes on the chain of custody form any unusual findings.
- If the temperature of the specimen is outside the acceptable range or there is evidence that the specimen has been tampered with, the donor must provide another specimen under direct observation by the collection site person or another person if the collection site person is not the same gender as the donor.

Procedure to be Followed if There is Reasonable Suspicion to Believe an Employee is Under the Influence

The COMPANY Drug and Alcohol policy outlines the steps to be taken when an employee is found or suspected to be under the influence. Testing may be conducted when an individual reports to work in an unfit condition, and there are reasonable grounds to suspect substance abuse. Those procedures include:

- Each supervisor is responsible for taking appropriate action when he/she has specific, objective and documentable grounds to believe an employee is unfit for duty. Another supervisor may be called to the work location to assist in the investigation as outlined.
- In the interest of safety, the supervisor will ensure the employee is removed from the workplace immediately and escorted to a safe place.
- Supervisor will notify the employee representative (if required), may request another supervisor to observe the employee, and may involve other health or safety personnel as required or appropriate.

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- Should the employee request a fellow employee or representative to be present, the supervisor will comply.
- Supervisor will give the employee the opportunity to explain why he/she appears to be in a condition unfit for duty.
- Supervisor should attempt to ascertain the nature and severity of the problem and determine if it is a possible violation of this policy, however, the supervisor should not attempt to diagnose a potential health problem.
- After giving the employee the opportunity to explain his/her condition, and after consultation with an employee representative (if required), if the supervisor still believes the employee is in a condition unfit for normal duty the employee will be tested for alcohol and/or drugs.
- The employee should be referred to the appropriate emergency care center (i.e. hospital) or appropriate contracted treatment facilities for further medical attention if it appears to be a medical problem. The supervisor will involve the local occupational health staff in a "fit for duty" assessment.

Procedure to Determine if Post Incident Testing is Required Following an Incident or Near Miss

COMPANY should have a method to determine if post incident testing is warranted following an incident or near miss, including how the decision to test is determined. Situations that warrant testing include a significant incident, near miss, or report of dangerous behaviour. Post-incident testing should be conducted as soon as reasonably practicable.

- COMPANY very simply requires that within no less than 24 hours following any significant incident (injury or property damage) or near miss all employees involved shall be tested for alcohol or drugs.
- Any employee refusing to be tested for post incidents shall be immediately suspended pending investigation.

Assistance Support

An employee may request help to treat an addiction without reprimand. Employees will be accommodated if an addiction problem exists.

The Drug and Alcohol policy should clearly communicate that assistance is available for employees who struggle with addiction without any resulting discipline. COMPANY shall outline when self-help can be requested, the resources available, the employee's responsibilities, and rules for discipline. Contact information for assistance programs should be provided and other self-help resources including references to Employee Assistance Programs (EAP) or government sponsored addiction and substance abuse program.

At any time if an employee feels self-help is need the supervisor (or other designated position such as Human Resources) will counsel the employee with an end toward resolving the situation. If the employee appears to be unable or unwilling to correct the situation, the employee may be referred to the EAP to assist in the resolution of the problem. Depending on the situation, the employee may accept or refuse participation in the EAP with the realization that refusal to participate could lead to disciplinary action

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and there may be situations where continued employment at COMPANY may be contingent on the employee calling the EAP for assistance.

Company recommends to its employees requiring assistance to utilize EAPs that are local and COMPANY will provide contact information for such companies.

Training and How Employees Are Informed of the Drug and Alcohol Policy for COMPANY

Employees must be informed of the Drug and Alcohol policy for COMPANY. Methods used to educate employees may include, but are not limited to, posting of the policy in the lunch room or in a conspicuous location at the work site, safety meetings, safety talks/training sessions, new employee orientations, and/or a requirement to read and acknowledge the company's policy.

Confidential Records

Drug and alcohol testing records must be kept confidential. COMPANY must have a system to protect private, personal information about its employees. Records of drug and alcohol testing should be considered strictly confidential. These records should be kept in a locked file and be accessible only to designated persons.

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PERSONAL PROTECTIVE AND SAFETY EQUIPMENT

Purpose of this policy

Having the appropriate personal protection and safety equipment is necessary on all job sites; it minimizes injuries and loss of earning.

Chinook Consulting Services Consulting takes responsibility for most safety courses that subcontractors require for well site consulting. These courses are: WHMIS, H2S alive, First Aid with CPR, TDG and defensive driving.

Contractors are responsible for supplying their own safety equipment, e.g. appropriate CSA hardhats, CSA approved safety glasses, ear plugs, fire retardant coveralls and CSA approved safety boots.

Prime Contractor's will supply on site medics and first aid stations where required by law. In the event that there is not a supplied medic, contractors should make their own vehicle first-aid kit available.

Chinook Consulting is responsible for providing, at no cost to the employee, all other items of personal protective equipment required. If the personal protective equipment provided by Chinook Consulting causes allergenic or other adverse health effects, we will provide appropriate alternate equipment or safe measures.

Scope

This policy applies to all employees who by nature of their job function have the potential to be exposed chemical, physical, radiological or biological hazards which can cause illness, injury or impairment to any part of the body through absorption, inhalation, or physical contact.

Correct Personal Safety Equipment for the job

- All consultants should be trained in proper PPE training, e.g. Petroleum Safety Training, this training covers proper PPE maintenance, care and proper fit for all common PPE's.
- All PPE's should be expected before use and be in good condition. Only use the correct PPE for which it was designed.
- CSA approved safety glasses must be worn on the rig at all times, they should also be worn any time that you are working with corrosive chemical, either in the mixing of chemicals or in the redistribution into other containers.
- Fire retardant coveralls will be worn at all times, with flame retardant fabrics (i.e. cotton) next to the skin, while working around the rig or on the rig floor. Coverall should have reflective strips to ensure visibility. All contractors should dress appropriate to the weather to ensure warmth and padded protection under coveralls. Proper gloves should also be utilized at all times while working with equipment or working around the rig. Coveralls should be worn as a barrier for limb, body and skin protection as well. Appropriate gloves, (leather or cotton), for the job should be use to protect the hands.
- CSA approved footwear, with steel shank and toe and hardhats will be utilized while working on or around the rig.

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- If for any reason, you must work more than 2.4m above nearest permanent safe level, a safety belt and lanyard with a lifeline must be used.
- Hearing protection should be used when noise levels are greater than legislated limits.
- Consultants must adhere to and obey all H2S Safety Consultants and take part in all safety drills on H2S wells.

Safety Rules

PPE (Personal Protective Equipment)

- All subcontractors are to ensure that their own PPE's are maintained and in good working order.
- All subcontractors will be trained in proper PPE usage, maintenance and expiry.

Safety equipment

- CSA rated safety boots
- Hardhat (check date)
- Fire retardant coveralls
- Eye protection
- Ear protection
- Mobile phone

Vehicle inspection

- Towrope
- Fire extinguisher
- First Aid kit
- Water
- Seasonally appropriate clothing
- All equipment secured for transport (legal requirement in B.C.)

Authority and Responsibility

Immediate Supervisors are responsible for:

- Ensuring PPE is available
- Providing PPE as required
- Providing PPE as required or upon request to all employees
- Ensuring PPE is being used by each affected employee during all job tasks which require such protection
- Conducting specific hazard assessments for personal protective equipment use upon request
- Documenting purchase and distribution of all PPE
- Taking the appropriate corrective action in accordance with the Chinook Consulting Personnel Policy on Progressive Corrective Action for employees not wearing required PPE

Environmental Health and Safety is responsible for:

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- Assessing the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of PPE
- Communicating selection decisions to each affected employee and supervisor
- Selecting and recommending PPE that properly fits each affected employee
- Providing training in the proper use and care of PPE
- Documenting aforementioned hazard assessment components

Employees are responsible for:

- Inspecting all PPE prior to its use
- Wearing PPE upon the direction of their immediate supervisor
- Participating in mandatory training
- Notifying their supervisor when new PPE is necessary
- Contacting Environmental Health and Safety when a hazard or process has changed which may render previously used PPE ineffective
- Notifying their supervisor of any changes which might impact the type of PPE they utilize

Considerations

PPE devices alone shall not be relied on to provide protection against hazards, but shall be used in conjunction with guards, engineering controls, administration controls and sound manufacturing practices.

When selecting PPE, utilize the following considerations as a basic directive.

- **Application:** What part of the body is being protected?
- **Chemical Resistance:** Will material maintain its structural integrity and protective qualities?
- **Strength:** Is the material resistant to punctures, tears, and abrasions?
- **Flexibility:** Does PPE provide the necessary dexterity?
- **Thermal Limits:** Does clothing maintain its mobility and protective capacity in temperature extremes?
- **Cleanable:** Can material be easily cleaned and reused?
- **Longevity:** Will clothing resist aging?

Hand Protection

Hand protection shall be worn when hands are exposed to hazards such as those from skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical burns, thermal burns and harmful temperature extremes.

The type of hand protection used shall be based on the performance characteristics of the hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards or potential hazards identified.

With respect to selection of gloves for protection against chemical hazards:

- The toxic properties of the chemical(s) must be determined; in particular, the ability of the chemical to cause local effects on the skin and/or to pass through the skin and cause systemic effects.

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- Generally, any "chemical resistant" glove can be used for dry powders.
- For mixtures and formulated products (unless specific test data are available), a glove shall be selected on the basis of the chemical component with the shortest breakthrough time, since it is possible for solvents to carry active ingredients through polymeric (a chemical compound or mixture of compounds formed by polymerization and consisting essentially of repeating structural units) materials.
- Employees shall be able to remove the gloves in such a manner as to prevent skin contamination.

Gloves shall be removed before touching public objects such as telephones, elevator buttons, or door handles to avoid cross contamination.

Head Protection

Head protection shall be worn in areas where there is a potential for injury to the head from impact, flying or falling objects (e.g., working below other workers who are using tools and materials which could fall through grates), or electrical shock and burns.

Helmets for protection against impact and penetration of falling objects shall comply with the "American National Standard for Personal Protection – Protective Headwear for Industrial Workers Requirements" (ANSI) Z89.1.2009. Helmets for protection against electrical shock and burns shall comply with ANSI Z89.2-1971.

Eye/Face Protection

Suitable eye protection or face protection shall be worn when there is the potential for exposure to the eyes or face from flying particles, molten metal, chemicals, gases or vapors or potentially injurious light radiation. Side protection is required when there is a hazard potential from flying objects. Detachable side protectors (e.g., clip-on or slide-on shields) meeting the pertinent requirements are acceptable.

Eye protection shall be durable, comfortable and easy to clean. Persons whose vision requires the use of corrective lenses and who by nature of their job duties require eye protection shall wear goggles or a full face shield that can be worn over the prescription lenses.

There are four general classes of eye and face protection: safety glasses, face shields, goggles and welding helmets. The type of protection required shall be determined by the type and degree of the hazard and shall comply with ANSI Z87.1-2010 "American National Standard Practice for Occupational and Educational Eye and Face Protection".

Foot Protection

Foot protection shall be worn when there is the potential for injury to the feet from falling or rolling objects, objects piercing the sole of the foot, electrical hazards, hot surfaces and slippery surfaces. Safety toe shoes are required for all field jobs..

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Foot protection shall comply with ANSI Z41-1999 “American National Standard for Personal Protection – Protective Footwear”.

Body Protection

Full body protection shall be worn when there is a potential for contamination or exposure to other parts of the body (e.g., legs, arms, back, chest) from heat, splashes from hot metals and liquids, impacts, cuts, chemicals and radiation.

Body protection includes the following:

- Lab coats
- Boot covers
- Aprons
- Bouffant caps
- Tyvek suits
- Coveralls

Maintenance Schedules

PPE shall be inspected, cleaned and maintained by employees at regular intervals so it can be discarded, changed and/or decontaminated as deemed necessary. At a minimum, all PPE shall be discarded when it has become contaminated, worn, torn or has other integrity problems.

It is important to ensure that contaminated PPE which cannot be decontaminated is disposed in a manner that protects employees from exposure to hazards while ensuring compliance with appropriate regulations.

Note: Inspect PPE before each use for tears, punctures, holes, cuts, cracks, embedded foreign objects and texture changes (e.g., swelling, softening, hardening, becoming sticky or inelastic).

Training

Initial Training

Initial training shall be provided by Environmental Health and Safety or the appropriate department for each employee who is required to use PPE. This training shall utilize the “Personal Protective Equipment” training booklet generated by Environmental Health and Safety which shall be updated to ensure consistency with changes in protective equipment and work processes. Each employee shall be trained in at least the following:

- When PPE is necessary
- What PPE is necessary
- How to properly don, doff, adjust, and wear PPE
- The limitations of the PPE
- The proper care, maintenance, useful life and disposal of the PPE

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Each affected employee shall demonstrate an understanding of the aforementioned training and the ability to use PPE properly before being allowed to perform work requiring the use of PPE.

Retraining

When there is reason to believe that any affected employee who has already been trained does not have the understanding and skill as required above, Environmental Health and Safety or the affected department shall retrain each such employee. Circumstances where retraining is required include, but are not limited to, situations where:

- Changes in the workplace render previous training obsolete
- Changes in the types of PPE to be used render previous training obsolete
- Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill

Recordkeeping

Environmental Health and Safety shall verify that each affected employee has received and understood the required training through a written certification containing the name of each employee trained, the date(s) of training and the subject of the certification.

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STORING AND HANDLING

Material and equipment must be placed, stacked or stored in a stable and secure manner. Stacked material or containers must be stabilized as necessary by interlocking, strapping or other effective means of restraint to protect the safety of workers.

An area in which material may be dropped, dumped or spilled must be guarded to prevent inadvertent entry by workers, or protected by adequate covers and guarding.

Hydrochloric Acid (10%)

Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage. Protect from physical damage. Keep out of direct sunlight and away from heat, water, and incompatible materials. Do not wash out container and use it for other purposes. When diluting, the acid should always be added slowly to water and in small amounts. Never use hot water and never add water to the acid. Water added to acid can cause uncontrolled boiling and splashing. When opening metal containers, use non-sparking tools because of the possibility of hydrogen gas being present. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

Alizarin Red

Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.

Store in an area suitable for general chemical storage with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials. Keep container tightly.

Trichloroethylene / Acetone

Acetone should always be handled, stored, and used with precautions against fire and explosion. Acetone is a flammable liquid with flammable limits of 2.6 to 12.8 vol % at 25°C. Solutions of acetone and water can be flammable. Since acetone vapors travel with air currents, they can be ignited by flames and sparks at locations remote from the site at which the material is being handled. Smoking should be prohibited since prolonged exposure to acetone may cause the chemical to remain on clothing.

Appropriate safety gear should always be worn when handling acetone. This includes safety glasses with cup-type side shields or chemical goggles, safety shoes, natural rubber, or neoprene gloves, and hard hat. In unusual or emergency situations when contact with the liquid is necessary or likely, the handler should wear full protective equipment and clothing. All contaminated clothing must be washed before reuse. Protective equipment and clothing should be decontaminated or disposed of according to the manufacturers instructions.

In case of eye contact with acetone, wash with copious amounts of water for at least 15 minutes, occasionally lifting the lower and upper lids. Obtain medical attention promptly. In case of skin contact,

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wash with water for at least 15 minutes. If inhaled, remove the patient from contaminated atmosphere to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen which is administered only by trained personnel. Get prompt medical attention.

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THERMAL EXPOSURE

The body needs to remain within a narrow temperature range. Extreme heat or cold can lead to serious injury. In cold or hot areas, adequate thermal clothing shall be worn.

Heat and Cold Stress

For activities in which exposure to heat and/or cold stress can occur, the need to develop work/rest cycles, provide protective clothing and equipment, etc. shall be evaluated.

Hot Environments

A worker must not be exposed to levels that exceed those listed in the screening criteria for heat stress exposure in the heat stress and strain section of the ACGIH Standard. Clothing corrections must be applied in accordance with the heat stress and strain section of the ACGIH Standard.

If a worker is or may be exposed, Chinook Consulting will conduct a heat stress assessment to determine the potential for hazardous exposure of workers, using measures and methods that are acceptable to the Board, and develop and implement a heat stress exposure control plan.

If a worker is or may be exposed, Chinook Consulting will implement engineering controls to reduce the exposure of workers to levels below those listed in the screening criteria for heat stress exposure in the heat stress and strain section of the ACGIH Standard.

If the above action is not practicable, Chinook Consulting must reduce the exposure of workers to levels below those listed in the screening criteria for heat stress exposure in the heat stress and strain section of the ACGIH Standard by providing; administrative controls, including a work-rest cycle, acceptable to the Board, or personal protective equipment, if the equipment provides protection equally effective as administrative controls.

Ensure thermal comfort in hot weather by:

- Putting insulating material around hot plant or pipes
- Providing air-cooling or air-conditioning plant
- Providing fans, e.g. either desk, pedestal or ceiling-mounted fans
- Ensuring that windows can be opened
- Shading windows with blinds or using reflective film to reduce the heating effect of the sun
- Sitting workstations away from direct sunlight and places which radiate heat
- Providing additional facilities, e.g. cold water dispensers (water is preferable to caffeine or carbonated drinks)
- Introducing work systems to limit exposure, such as flexible working patterns, e.g. early start/finish times
- Allowing sufficient breaks to enable employees to get cold drinks or to cool down
- Introducing flexible working practices such as flexible hours or earlier starts to the working day to
- avoid the worst effects of working in exceptionally high temperatures

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- Relaxing formal dress codes, but you must ensure that personal protective equipment is provided
- and used if required
- If a worker shows signs or reports symptoms of heat stress or strain, the worker must be removed from the hot environment and treated by an appropriate first aid attendant, if available, or by a physician.

Advice for outdoor workers

What are the dangers?

In the short term...

- sunburn can blister your skin and make it peel, but even mild reddening is a sign of skin damage
- In the long term...
- too much sun will speed up the ageing of your skin, making it leathery, mottled and wrinkled, but the most serious effect is an increased chance of developing skin cancer
- Abnormal reactions to sunlight
- Some medicines, contact with some chemicals used at work and contact with some plants, can make your skin more sensitive to sunlight. Your family doctor should be able to advise you further.

Who is at risk of skin cancer?

Some people are more liable to skin cancers than others. People with white skin are at most risk. Take particular care if you have:

- fair or freckled skin that doesn't tan, or goes red or burns before it tans
- red or fair hair and light colored eyes
- a large number of moles - 50 or more

Workers of Asian or Afro-Caribbean origin are less at risk, but they should still take care in the sun to avoid damage to eyes, skin ageing and dehydration.

What can I do to protect myself?

Even if your skin is not fair and freckled, you should still be particularly careful while you are working out of doors in the summer in the three or four hours around midday. The sun is most intense at these times. Even on cloudy days, UV can filter through.

Some Dos and Don'ts to avoid the dangers are:

- Do try to avoid the mild reddening which is a sign of skin damage as well as being an early sign of burning.
- Do try to work and take your breaks in the shade if you can - this will reduce your risk of harming your skin and also help to keep you cool.
- Do continue to take care when you go on holiday - your skin remembers every exposure.

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- Don’t be complacent; get to know your skin’s most vulnerable areas (e.g. back of neck, head) and keep them covered.
- Don’t try to get a tan - it’s not a healthy sign. It might look good but it indicates that the skin has already been damaged. A suntan does not eliminate the long-term cancer risk which is associated with prolonged exposure to the sun; nor will it protect against premature ageing.

Sunscreens

- Hard-hats and other clothing are the best form of protection, but sunscreen creams and lotions can add useful protection for parts of your body that are not easy to shade from the sun. Look for a sun protection factor (SPF) rating of 15 or more as it protects against UVA and UVB.
- Read the supplier’s instructions on how it should be applied. Don’t forget the backs of your hands.

Check your skin

The first warning sign is often a small scabby spot which does not clear after a few weeks. Look for changed or newly formed moles or any skin discoloration. It is normal for new moles to appear until you are about 18 years old.

As an adult you should pay particular attention to any growths which appear on the face, especially around the nose and eyes, or on the backs of the hands; you should show your doctor any moles which change in size, color, shape or start to bleed.

If you notice any of these signs consult your own doctor, or your works medical department if you have one. Show them this leaflet and explain that you have an outdoor job.

Fortunately most of these signs will be harmless, but medical checks may be needed to be sure. Even if a spot is cancerous, simple modern treatments can usually cure it and most don’t spread to other parts of the body. The smaller the spot the easier it is to cure. So don’t put off going to the doctor when you know you should.

If you have any kind of medical check-up tell the doctor that you have an outdoor job and ask if there are any suspicious signs on your skin.

Cold weather

If a worker is or may be exposed to the conditions:

- Thermal conditions that could cause cold stress or injury.
- Thermal conditions that could cause a worker's core body temperature to fall below 36°C (96.8°F).
- Thermal conditions that are below the levels classified as "little danger" to workers in the criteria for the cooling power of wind on exposed flesh in the cold stress section of the ACGIH Standard, Chinook Consulting will conduct a cold stress assessment to determine the potential for hazardous exposure of workers, using measures and methods that are acceptable to the Board, and develop and implement a cold exposure control plan.

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If a worker is or may be exposed, the Chinook Consulting will implement effective engineering controls to reduce the exposure hazard to levels above those classified as "little danger" to workers in the criteria for the cooling power of wind on exposed flesh in the cold stress section of the ACGIH Standard. If the above action is not practicable, the employer must reduce the exposure hazard by providing effective administrative controls, or personal protective equipment, if the equipment provides protection equally effective as administrative controls.

A Chinook Consulting employee who is or may be exposed must wear adequate insulating clothing and personal protective equipment. If work takes place outdoors in snow or ice covered terrain where excessive ultraviolet light, glare or blowing ice crystals present a risk of injury to the eyes, workers must wear eye protection appropriate to the hazards.

When in a cold environment, most of your body's energy is used to keep your internal temperature warm. Over time, your body will begin to shift blood flow from your extremities (hands, feet, arms, and legs) and outer skin to the core (chest and abdomen). This allows exposed skin and the extremities to cool rapidly and increases the risk of frostbite and hypothermia. Combine this with cold water, and trench foot may also be a problem.

Hypothermia

Hypothermia means *"low heat"* and is a potentially serious health condition. This occurs when body heat is lost from being in a cold environment faster than it can be replaced. When the body temperature drops below the normal 98.6° F to around 95° F, the onset of symptoms normally begins. The person begins to shiver and stomp feet in order to generate heat.

As the body temperature continues to fall, slurred speech, lack of coordination and memory loss develop and the person will stop shivering. Once the body temperature falls to around 85° F, the person may become unconscious, and at 78°, the person could die.

Who is at risk: Anyone working in a cold environment may be at risk for cold stress. However, older people may be at more risk than younger adults, since older people are not able to generate heat as quickly.

Ensure thermal comfort in hot weather by:

- Providing adequate heating in the workplace or local heating such as temporary heaters
- Reducing exposure to the cold by separating cold products or cold areas from areas where people
- are working
- Reducing draughts
- Providing insulated duckboards or other floor coverings or special footwear where workers have to stand for long periods on cold floors
- Providing the appropriate type of protective clothing

Controlling the Risk

Workers who are exposed to extreme cold working conditions must be properly prepared and equipped.

A Chinook Consulting employee who is or may be exposed must wear adequate insulating clothing and personal protective equipment. If work takes place outdoors in snow or ice covered terrain where

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excessive ultraviolet light, glare or blowing ice crystals present a risk of injury to the eyes, workers must wear eye protection appropriate to the hazards.

If a worker exposed to cold shows signs or reports symptoms of cold stress or injury, the worker must be removed from further exposure and treated by an appropriate first aid attendant, if available, or a physician.

The risks of working in the cold are caused by three main factors - air temperature, air movement (wind speed) and humidity (wetness). These factors must be properly controlled by proper insulation (layered, protective clothing) and by limiting exposure (work/rest schedule).

- Prepare a checklist for outdoor work including required clothing and equipment.
- Establish policies and procedures for working in the cold and make sure they are followed.
- Develop a cold weather kit for emergency survival. This is especially important for those travelling long distances or working in remote or isolated areas.
- Rotate tasks and use work schedules to reduce prolonged exposure to the cold.
- Provide training to help workers and supervisors recognize the signs of cold stress.

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WORK AREA REQUIREMENTS

Arrangement of work areas and housekeeping

A work area must be arranged to allow the safe movement of people, equipment and materials. If, to ensure safety, an aisle or passageway is designated for pedestrian traffic, the route must be clearly indicated by markings or other effective means and, where practicable, floor or grade markings must be used.

Proper housekeeping practiced must be followed at all times. The workplace must be as clean as possible, and all areas used for work must be thoroughly cleaned at the end of each job.

Restricted entry

Hazardous areas not intended to be accessible to workers must be secured by locked doors or equivalent means of security and must not be entered unless safe work procedures are developed and followed.

Restricted visibility

A worker must not be permitted to enter or work in an area if visibility in the area is restricted by the presence of smoke, steam or other substance in the atmosphere, unless appropriate safe work procedures are followed.

There must be a safe way of entering and leaving each place where work is performed and a worker must not use another way, if the other way is hazardous.

Compressed air or steam must not be used for blowing dust, chips, or other substances from equipment, materials and structures if any person could be exposed to the jet, or to the material it expels or propels.

If clothing is to be cleaned before leaving the work area, suitable cleaning equipment must be used.

Floors, platforms, ramps, stairs and walkways available for use by workers must be maintained in a state of good repair and kept free of slipping and tripping hazards. If such areas are taken out of service the employer must take reasonable means for preventing entry or use.

- Keep your work area clean and free of oil, grease, mud, and unnecessary tools.
- Clean up spills promptly and properly.
- Place garbage and waste materials in appropriate containers.
- Keep front of shack free of snow, ice and water.
- Remove materials and tools obstructing the movement of vehicles or people.
- Tidy shack before leaving the job site.

Professional/Personal Appearance

- All Contractor must maintain a physical fitness level to sustain all aspects of their positions.
- All Contractors must inform the Contracting companies representative if they wear contact lenses or have any existing medical conditions.

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- All Chinook Consulting Services Contractors are expected to conduct themselves in a professional manner through personal hygiene and personal contact with other contractors and operator employees.
- Full beards are not allowed, mustaches and some goatees may be acceptable. Any facial hair or long hair must not interfere with the use of a positive pressure face mask.
- Personal protective equipment (PPE) must be used whenever necessary, coveralls, hard hats, steel toed boots, goggles and gloves must be clean and in good condition. Coveralls should have a name tag and safety induction tickets should be stuck on the inside or outside of hard hats.

Chemicals

- Keep all dangerous chemicals under a fume hood or near fan ventilation
- Have on location all MSDS sheets for any chemicals that you bring on location
- Always use safety glasses while filling or mixing any chemicals, e.g. 10% hydrochloric acid, trichloroethylene, etc.
- Correctly vent any hotwire unit

Company Owned Vehicles

All company owned vehicles must:

- Be kept clean inside and out at all times
- All safety equipment associated with that vehicle must be used at all times, e.g. safety belts
- Must be driven in a safe manner in full control of the vehicle at all times
- Never be operated while under the influence of illegal drugs or alcohol
- Circle checks and a visual inspection must be performed prior to every trip
- Only authorized people may drive company vehicles, these people must undergo driver training and maintain a valid driver's license
- At no time should an employee attempt to service his/her own tires unless qualified to do so
- Contractors must receive proper driver training
- They must possess and maintain a valid driver's license

The Following Forms that can be found in **Appendix – Forms** may be used

- Form 9 – Work Area Requirements Acknowledgement Form

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WORKPLACE CONDUCT

Improper activity, behavior or conduct includes:

- The attempted or actual exercise by a worker towards another worker of any physical force so as to cause injury, and includes any threatening statement or behavior which gives the worker reasonable cause to believe he or she is at risk of physical or psychological injury
- Bullying, intimidation and abuse arising out of the workplace
- Horseplay, practical jokes, unnecessary running or jumping or similar conduct

Prohibition

A person must not engage in any improper activity or behavior at a workplace that might create or constitute a hazard to themselves or to any other person.

Reporting

If an incident of improper activity or behavior occurs in contradiction to Workplace Conduct Regulations, it is the responsibility of the worker to report the incident and the supervisor or manager to investigate. If the incident is a criminal offence, call the police.

Policies

Chinook Consulting employees who are faced with an urgent situation involving threatening or violent conduct, where there is reasonable belief that the safety of persons may be threatened, should contact the police immediately. The Company will take steps to remove immediately from workplace a person who exhibits violent or threatening behavior. The Company will pursue appropriate legal and disciplinary measures in such cases.

Every employee and subcontractor has the right to work in an environment free from discrimination and harassment, including sexual harassment. The Company therefore does not condone these actions and regards discrimination and harassment as serious offenses that are subject to a wide range of disciplinary measures, including contract termination.

Professional/Personal Appearance

- All Contractor must maintain a physical fitness level to sustain all aspects of their positions
- All Contractors must inform the Contracting companies representative if they wear contact lenses or have any existing medical conditions.
- All Chinook Consulting Services Contractors are expected to conduct themselves in a professional manner through personal hygiene and personal contact with other contractors and operator employees.
- Full beards are not allowed, mustaches and some goatees may be acceptable. Any facial hair or long hair must not interfere with the use of a positive pressure face mask.

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RESPIRATORY PROTECTION

In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (e.g., enclosure or confinement of the operation, general and local ventilation) or administrative control measures (e.g., substitution of less toxic materials). When effective engineering and/or administrative controls are not feasible or while they are being instituted, appropriate respirators shall be provided and used pursuant with this policy when such equipment is necessary to protect the health of the employee.

Authority and Responsibility

Environmental Health and Safety is responsible for:

- Acting as the administrator of the Respiratory Protection Program.
- Validating the need for respiratory protection devices.
- Determining the adequate level of protection and identifying the appropriate cartridges necessary for the task.
- Providing training in the proper use and care of the respiratory protection devices.
- Conducting all **fit testing.**
- Maintaining all medical clearance forms and fit test records.
- Conducting a program evaluation.

Departments are responsible for:

- Contacting Environmental Health and Safety to have a hazard assessment conducted to validate the need of respiratory protection devices.
- Purchasing and maintaining an inventory of respiratory protection devices and cartridges.
- Making arrangements for employee training and fit testing with Environmental Health and Safety.
- Ensuring employees are wearing respiratory protection devices in conjunction with the requirements of this policy (e.g., no facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function).
- Contacting Environmental Health and Safety if there is a change in facial features or additional fit testing is necessary.
- Contacting Environmental Health and Safety as necessary to report changes in workplace conditions that affect the use of a respirator.

Employees are responsible for:

- Wearing respiratory protection devices in conjunction with all requirements of this policy (e.g., no facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function).
- Attending annual respirator training and fit testing.
- Maintaining, cleaning and inspecting respiratory protection devices in accordance with this policy.
- Notifying their supervisor if a medical evaluation or additional fit testing is necessary.

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Volunteer Use of Respirators

Where respirator use is not required, respirators shall be provided at the request of employees or employees shall be permitted to use their own respirators provided Environmental Health and Safety determines that such respirator use will not in itself create a hazard. If Environmental Health and Safety determines that voluntary respirator use is permissible, a copy of the **Voluntary Respirator Use Information** shall be provided to the employee.

Each employee using a respirator voluntarily shall still meet the medical criteria of this policy to ensure he/she is medically able to use the respirator. The employee shall also follow all cleaning, storage and maintenance requirements in this policy to ensure that the respirator use does not present a health hazard to the user.

Exception: This does not apply to the voluntary use of **filtering facepieces (dust masks).**

Respirator Selection

Environmental Health and Safety shall identify and evaluate respiratory hazard(s) in the workplace. This evaluation shall include a reasonable estimate of **employee exposures** to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form. Where employee exposure cannot be identified or reasonably estimated, the atmosphere shall be considered to be **immediately dangerous to life and health (IDLH)**.

Environmental Health and Safety shall recommend an appropriate National Institute for Occupational Safety and Health (NIOSH) certified respirator based on the respiratory hazard(s) to which the worker is exposed and workplace and user factors that affect respirator performance and reliability. The respirator shall be adequate to protect the health of the employee and ensure compliance with all other OSHA requirements under routine and reasonably foreseeable **emergency situations**.

IDLH Protection

For protection from IDLH atmospheres, one of the following respirators shall be provided:

- A full facepiece **pressure demand self contained breathing apparatus (SCBA)** certified by NIOSH for a minimum service life of thirty minutes; or
- A combination full facepiece pressure demand **supplied-air respirator (SAR)** with auxiliary self-contained air supply.

Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.
All oxygen deficient or H2S atmospheres shall be considered IDLH.

Gas and Vapor Protection

For protection against gases and vapors, one of the following respirators shall be provided:

- An **atmosphere-supplying** respirator; or
- An **air-purifying respirator**, provided that the respirator is equipped with an **end-of-service-life indicator (ESLI)** certified by NIOSH for the contaminant or when there is no ESLI appropriate for conditions in the workplace Environmental Health and Safety shall implement a change schedule

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for **canisters or cartridges** that is based on objective information or data from the respirator manufacturer that will ensure that canisters and cartridges are changed before the end of their **service life**.

Particulate Protection

For protection against particulates, one of the following respirators shall be provided:

- An atmosphere-supplying respirator; or
- An air-purifying respirator equipped with a filter certified by NIOSH under 30 CFR part 11 as a **high efficiency particulate air (HEPA)** filter, or an air-purifying respirator equipped with a filter certified for particulates by NIOSH under 42 CFR part 84; or
- For contaminants consisting primarily of particles with mass median aerodynamic diameters (MMAD) of at least three micrometers, an air-purifying respirator equipped with any filter certified for particulates by NIOSH.

Tuberculosis Exposure Control

For protection against TB, the following shall be provided:

- An N-95 respirator certified by NIOSH under 42 CFR part 84 as a air purifying particulate respirator.

Fit Testing Procedures

Before an employee may be required to use any respirator with a **negative or positive pressure tight-fitting facepiece**, the employee shall be fit tested with the same make, model, style and size of respirator that will be used.

Environmental Health and Safety shall conduct and ensure employees pass an appropriate **qualitative fit test (QLFT)**. Fit testing shall be conducted prior to initial use of the respirator, whenever a different respirator facepiece (e.g., size, style, model, make) is used and at least annually thereafter.

An additional fit test shall be conducted whenever any of the following occurs:

- Significant weight change (20 pounds or more)
- Significant facial scarring in the area of the facepiece seal
- Significant dental changes
- Reconstructive or cosmetic surgery
- Other conditions that may interfere with the facepiece seal

If after passing a QLFT, the employee subsequently notifies Environmental Health and Safety that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator facepiece and be retested.

All fit tests shall be administered by Environmental Health and Safety in accordance with the Occupational Safety and Health Administration requirements found in 29 CFR 1910.134 Appendix A.

Fit tests will not be conducted on respirator users if they have facial hair that will affect the seal between the respirator and skin.

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Respirator Use

Facepiece Seal Protection

Respirators with tight-fitting facepieces shall not be worn by employees who have:

- Facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function.
- Any condition that interferes with the face-to-facepiece seal or valve function.

If an employee wears corrective glasses or goggles or other personal protective equipment, it shall be worn in a manner that does not interfere with the seal of the facepiece to the face seal of the user.

For all tight-fitting respirators, employees shall perform a **user seal** check in accordance with the **User Seal Check Procedures** to ensure that an adequate seal is achieved each time the respirator is worn.

Routine and Emergency Use Procedures

Employees shall leave the respirator use area for the following reasons:

- To wash their faces and respirator facepieces as necessary to prevent eye or skin irritation associated with respirator use.
- If they detect vapor or gas breakthrough, changes in breathing resistance or leakage of the facepiece.
- To replace the respirator or the filter, cartridge or canister elements.

If the employee detects vapor or gas breakthrough, changes in breathing resistance or leakage of the facepiece, the respirator shall be replaced or repaired prior to returning to the work area.

IDLH Atmospheres

For all IDLH atmospheres:

- One employee, or when needed, more than one employee shall be located outside the IDLH atmosphere.
- Visual, voice or signal line communication shall be maintained between the employee(s) inside and outside of the IDLH atmosphere.
- The Fire Department shall be contacted prior to entry into IDLH atmospheres to provide entry assistance, back-up assistance, and/or emergency rescue.

Maintenance and Care of Respirators

Cleaning and Disinfecting

All respirators provided to employees shall be clean, sanitary and in good working order. Respirators shall be cleaned and disinfected using the procedures in the **Respirator Cleaning Procedure** at the following intervals:

- As often as necessary to be maintained in a sanitary condition when used exclusively by one employee.
- After each use when issued to more than one employee.

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- After each use when used for fit testing and training purposes.

Note: N-95 respirators are one time use only.

Storage

All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and shall be packed or stored to prevent deformation of the facepiece and exhalation valve.

Emergency respirators shall be kept accessible to the work area, stored in compartments or covers clearly marked as containing emergency respirators and stored in accordance with any applicable manufacturer instructions.

Inspection

Respirators used on a routine basis shall be inspected by the respirator user before each use and during cleaning.

Emergency use respirators shall be inspected by the respirator user before and after each use and at least monthly otherwise.

Emergency **escape-only** respirators shall be inspected by the user before being carried into the workplace for use.

Respirator inspections shall include the following:

- A check of respirator function, tightness of connections and the condition of the various parts including, but not limited to, the facepiece, head straps, valves, connecting tube and cartridges, canisters or filters.
- A check of elastomeric parts for pliability and signs of deterioration.

Inspections of respirators maintained for emergency use shall be certified by documenting the date the inspection was performed, the name of the person who made the inspection, the findings, required remedial action and a serial number or other means of identifying the inspected respirator. This information shall be kept with the respirator and maintained until replaced with a subsequent certification.

Training and Information

Training shall be conducted by Environmental Health and Safety prior to requiring any employee to use a respirator in the workplace. This training shall utilize the “Respiratory Protection” training booklet generated by Environmental Health and Safety. This training booklet shall be revised to include provisions of the revised standard, as revisions to the standard are published. Environmental Health and Safety shall ensure that each employee attending training is able to demonstrate knowledge of at least the following:

- Why the respirator is necessary and how improper fit, usage or maintenance can compromise the protective effect of the respirator.
- What the limitations and capabilities of the respirator are.

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- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions.
- How to inspect, put on and remove, use and check the seals of the respirator.
- What the procedures are for maintenance and storage of the respirator.
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
- The general requirements of the standard.

Note: A medical clearance form shall be provided to Environmental Health and Safety by Chinook Consulting for each employee on or before the day of training. If an employee has not been cleared to wear a respirator by Chinook Consulting, they will not be allowed to attend training.

Retraining

Retraining shall be administered annually and when the following situation occurs:

- Changes in the workplace or the type of respirator render previous training obsolete.
- Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill.
- Any other situation arises in which retraining appears necessary to ensure safe respirator use.

Program Evaluation

Environmental Health and Safety shall conduct evaluations of the workplace to ensure this program is being properly implemented.

Environmental Health and Safety shall regularly consult employees required to use respirators to assess the employees' views on program effectiveness and to identify any problems. Any problems identified during this assessment shall be corrected. Factors to be assessed include, but are not limited to, the following:

- Respirator fit (including the ability to use the respirator without interfering with effective workplace performance).
- Appropriate respirator selection for the hazards to which the employee is exposed.
- Proper respirator use under the workplace conditions the employee encounters.
- Proper respirator maintenance.

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WHMIS

Purpose

It is the policy of CHINOOK CONSULTING SERVICES that special precautions are taken when manufacturing, using, handling, storing and disposing of controlled products. General and specific training is required for those employees who work with or in close proximity to controlled products in Alberta.

All employees who work with or near controlled products are provided WHMIS training.

CHINOOK CONSULTING SERVICES must ensure that a worker who works with or in proximity to a controlled product received from a supplier has access to all hazard information received from the supplier concerning that controlled product as well as any further hazard information of which CHINOOK CONSULTING SERVICES is aware or ought to be aware concerning the use, storage and handling of that product.

CHINOOK CONSULTING SERVICES will have a written Workplace Hazardous Materials Information System (WHMIS) program. CHINOOK CONSULTING SERVICES must ensure that a controlled product is used, stored, and handled at a work site in accordance with Part 29 of the Alberta OHS Code.

Fulfilling the requirement for controlled products as defined in the Workplace Hazardous Materials Information System (WHMIS) regulations for Alberta will ensure that all potential hazards associated with the use, handling, storage, manufacturing and disposal of controlled products are identified, eliminated or minimized.

Scope

This program is applicable to all CHINOOK CONSULTING SERVICES employees who may be exposed to controlled products in Alberta. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers CHINOOK CONSULTING SERVICES employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Definitions

Hazardous Materials

- Can harm people, plants, animals and the environment.
- Long term exposure, even small quantities, may be harmful or cause permanent damage.
- Immediate exposure may cause acute symptoms.

Controlled Products

- Any product, material or substance that is included in any of the six WHMIS classes:
- Compressed gas; Flammable and Combustible Material; Oxidizing Material
- Poisonous and Infectious Material; Corrosive Material; Dangerously Reactive Chemicals.

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Routes of Entry

- Toxic effects of the controlled product depend on how you come into contact with the hazardous material, which may enter the body through.
- Inhalation – breathing in dust particles, fumes, mists or vapors can irritate or burn air passages, e.g. formaldehyde.
- Ingestion – eating, drinking, or smoking while handling controlled products.
- Eye or skin absorption – splashes or spills can cause dermatitis, inflammation, or irritation of the skin.

Degree of Hazard

- The amount or degree of hazard is determined by:
- Toxicity of a substance
- Dosage
- Duration of exposure

Acute Poisoning

- Hazardous products can cause immediate harm e.g. H2S.

Chronic Poisoning

- May take hours, days, years, or even decades before you are aware of the damage that has been done, as some hazardous products slowly cause irreversible damage e.g. asbestos.

Consumer Products

- Products purchased in a store for personal care or household use, not for use in the workplace. Even though it may be the same product, the intent is only to regulate controlled products in the workplace, not the home.

Responsibilities

If controlled products are used in the workplace, CHINOOK CONSULTING SERVICES, in consultation with the joint committee or employee health and safety representative, as applicable, will establish and maintain an effective WHMIS program at each work site, as part of the overall workplace health and safety program, which addresses applicable WHMIS requirements including education and training, and is reviewed at least annually, or more frequently if required by a change in work conditions or available hazard information.

Managers

It is the responsibility of each manager to ensure WHMIS requirements are met in all locations under his or her authority, which includes:

- Labeling of all containers.
- Educating employees on WHMIS.
- Providing personal protective equipment (PPE) and monitoring use.

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- Ensuring Material Safety Data Sheets (MSDS) for all controlled products are current and available to employees.
- Maintaining an updated Controlled Product Inventory.
- Providing the designated supervisor with a copy of the current Controlled Product Inventory List.

Employees

To reduce the risk of a controlled product exposure employees are expected to comply with WHMIS legislation and this program and therefore be familiar with labeling and material safety data sheets (MSDS) of controlled products used in the workplace.

- Employees shall follow all label and MSDS requirements.
- Employees will immediately report any concerns regarding the WHMIS program to their supervisor.

Procedure

- No WHMIS controlled products or materials will be allowed to be used unless there is a valid Material Safety Data Sheet available on-site and there is a supplier or workplace label on the container for any controlled product that is produced, manufactured or used at a CHINOOK CONSULTING SERVICES site.
- CHINOOK CONSULTING SERVICES will ensure the MSDS is obtained from the supplier when receiving a controlled product on each job site.
- CHINOOK CONSULTING SERVICES will ensure that MSDS are filed at the work site where they will be readily accessible to employees.
- When a supplier MSDS obtained for a controlled product is 3 years old, CHINOOK CONSULTING SERVICES must, if possible, obtain from the supplier an up-to-date supplier MSDS for the controlled product if any of the product remains in the workplace.
- CHINOOK CONSULTING SERVICES will ensure that MSDS are available and posted near the work site where controlled products are used.
- Managers will ensure that employees are notified if a controlled product is to be used in an open area or where fumes may migrate.
- A Controlled Product Inventory List and Material Safety Data Sheets shall be kept at a main location and will be made available to employees for review.
- All hazardous waste is labeled and that workers are trained on safe handling of hazardous waste.

If a controlled product is a hazardous waste generated at the work site, CHINOOK CONSULTING SERVICES must ensure that it is stored and handled safely using a combination of any means of identification and instruction of workers on the safe handling of the hazardous waste.

Controlled Product Inventory List

- CHINOOK CONSULTING SERVICES maintains a listing of all controlled products used at, or by each facility.
- This controlled product inventory list is updated as necessary and at least annually by the site WHMIS Coordinator or their designee.
- The facility controlled product inventory list must be available for review upon request.

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- The Controlled Product Inventory List is maintained in a computer file folder in each location. The manager is responsible for seeing that the inventory is maintained, is current and is complete. He or she will review the inventory and the MSDS Book at least annually. He will sign and date the Review and Update section at the front of the MSDS Book when he completes his review. When a hazardous material has been permanently removed from the work place, its MSDS is to be removed from the MSDS Book and the Controlled Product Inventory List. A file copy is to be maintained in a "dead file".

Storage of Harmful Substances

All containers, used or handled at a workplace, which by reason of toxicity, flammability or reactivity create risk to the health or safety of employees shall be contained, so far as is reasonably practicable in a suitable container which is clearly labeled to identify the substance, the hazards associated with its use or handling, the workplace uses for which it is intended and protective measures to be taken by employees before, during and after its use.

CHINOOK CONSULTING SERVICES will ensure that residue or waste from the substance or materials used for cleaning or wiping it is placed into suitably labeled containers for safe disposal.

Harmful substances are to be stored in a self-contained enclosure, room or building that is isolated from work-related areas and worksites and is adequately ventilated and protected from conditions, including excessive temperature, shock or vibration that could reduce the stability or increase the potential hazard of the substance.

Material Safety Data Sheets

Material Safety Data Sheets (MSDS) are obtained for all controlled products. If CHINOOK CONSULTING SERVICES acquires a controlled product for use at a work site must obtain a supplier material safety data sheet for that controlled product.

MSDS are readily available to employees. CHINOOK CONSULTING SERVICES must ensure that the material safety data sheet is readily available at a work site to workers who may be exposed to a controlled product.

Material Safety Data Sheets are filed alphabetically, by material classification, in the MSDS Book. A Controlled Product Inventory List is provided in the front of the MSDS Book, listing all MSDS's contained therein. This inventory serves as the index of the MSDS Book. The MSDS Book is displayed in a prominent location at the work site where it is accessible to all employees.

A copy of a MSDS request form is located in the first section of the MSDS Book. An employee may use a copy of this form to request an MSDS or he may ask the operations manager for one. In either case the requested MSDS must be given to the employee within 24 hours.

MSDSs must be obtained for each required controlled product from the controlled product manufacturer, supplier or vendor. The purchasing of any potentially controlled product products from any supplier that does not provide an appropriate Material Safety Data Sheet in a timely fashion is prohibited.

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The Material Safety Data Sheet must be kept in the MSDS library for as long as the controlled product is used by the facility.

Electronic access (telephone, fax, internet, etc.) may be used to acquire and maintain MSDS libraries and archives.

The joint health and safety committee, the employee health and safety representative, and the workplace health and safety designate have the right to request MSDS on any controlled product and it must be provided without any issues as well as any further hazard information of which CHINOOK CONSULTING SERVICES is aware or ought to be aware concerning the use, storage and handling of that product.

Labels, Labeling and Warnings

All controlled products are labeled with either a supplier label or a work site label. CHINOOK CONSULTING SERVICES has a procedure to ensure that a controlled product or its container at a work site has a supplier label or a work site label on it.

Supplier labels must be affixed to the original containers of controlled products. If labels are missing or illegible, they should be replaced with workplace labels. CHINOOK CONSULTING SERVICES must not remove, modify or alter a supplier label on a container in which a controlled product is received from a supplier if any amount of the controlled product remains in the container. If the supplier label on a controlled product or its container is illegible or is removed or detached, CHINOOK CONSULTING SERVICES must immediately replace the label with another supplier label or a work site label.

If CHINOOK CONSULTING SERVICES produces a controlled product in a workplace it shall ensure that the controlled product or the container of the controlled product has a workplace label.

Employees who are unsure of the contents of any container, vessel or piping must contact their supervisor for information regarding the substance including:

- The name of the substance.
- The hazards related to the substance.
- The safety precautions required for working with the substance.

Labels, tags or markings on containers shall list as a minimum:

- Words, pictures, symbols or combinations thereof may be used.
- The trade name of the product as listed on the Material Safety Data Sheet.
- Appropriate hazard warnings to help employees protect themselves from the hazards of the substance.
- Labels provided by controlled product manufacturers, distributors, and importers must also list the name and address of the manufacturer, importer, or vendor responsible for the controlled product, and from whom more information about the controlled product can be obtained.

Workplace labels must be affixed to controlled products that have been transferred from the original container into another container. If a controlled product is decanted at a work site into a container other than the container in which it was received from a supplier, CHINOOK CONSULTING SERVICES must ensure that a work site label is applied to the container.

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Personnel in the Shipping and Receiving Departments are responsible for proper labeling of all containers shipped by CHINOOK CONSULTING SERVICES and for the inspection of all incoming materials to ensure correct labeling. Controlled products received from vendors that are not properly labeled must be rejected.

Training

All workers who work with or near controlled products are provided WHMIS training. CHINOOK CONSULTING SERVICES must ensure that a worker who works with or near a controlled product is trained in the content required to be on a supplier label and a work site label and the purpose and significance of the information on the label, the content required to be on a material safety data sheet and the purpose and significance of the information on the material safety data sheet, procedures for safely storing, using, and handling the controlled product and the procedures to be followed in case of an emergency involving the controlled product.

CHINOOK CONSULTING SERVICES shall review at least annually or more frequently if required by a change in work conditions or available hazard information, and in consultation with the joint health and safety committee, the employee health and safety representative or the workplace health and safety designate, the instruction and training provided to employees concerning controlled products. The documented training shall, as a minimum, include:

- Requirements and rights and responsibilities of CHINOOK CONSULTING SERVICES and of the employee as contained in the WHMIS Regulation.
- Operations and work areas where controlled products are present.
- Location and elements of the written WHMIS Program, and the Controlled Product Inventory List.
- How to access MSDS's or MSDS information.
- How to read labels and Material Safety Data Sheets for pertinent hazard information.
- Content required on supplier labels, work site label and the purpose and significance of the information on the label.
- Content required being on a MSDS and the purpose and significance of the information on the MSDS.
- Procedures for safely storing, using and handling the controlled product.
- How to determine the presence or release of a hazardous substance or fugitive emissions when working with a controlled product.
- Major hazards of the controlled products in use in the workplace.
- Physical and health effects of over exposure to hazardous substances in the workplace and how to work safely with the controlled product.
- How personnel can protect themselves or prevent exposure to hazardous substances, through the use of protective equipment, proper work practices and engineering or environmental controls.
- The proactive steps CHINOOK CONSULTING SERVICES has taken to prevent exposure to hazardous substances and non-routine tasks.
- Emergency procedures involving a controlled product and emergency first aid procedures to follow for exposure or harm caused by hazardous substances.

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Additional training will be provided whenever a new controlled product hazard is introduced into the work area. To reinforce the importance of handling controlled products properly when performing new or non-routine tasks, Supervision will conduct supplementary training as needed.

Formal training will be conducted by facility employees or individuals who are knowledgeable in the WHMIS program.

When an outside contractor, such as a pest control employee or a carpenter enters a CHINOOK CONSULTING SERVICES site to perform a service for the Chinook Consulting Services, he must first present MSDS's for any and all controlled products he will use. These MSDS's will be treated as above with the same training requirements. The operations manager will be responsible for contacting each contractor before work is started to gather and disseminate any information concerning controlled product hazards the contractor is bringing into the work place.

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WHMIS Classifications and Symbols

Class A
Compressed Gas

Class B
Flammable and Combustible Material

Class C
Oxidizing Material

Class D
Poisonous and Infectious Material:

Class D – Division 1.
Materials Causing Immediate and Serious Toxic Effects

Class D – Division 2.
Materials Causing Other Toxic Effects

Class D – Division 3.
Biohazardous Infectious Material

Class E
Corrosive Material

Class F
Dangerously Reactive Material

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Controlled Product Inventory List

Controlled product Name/Identifier	Location(s) Stored	WHMIS Class	Label Attached?	MSDS Available?

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SUBCONTRACTOR MANAGEMENT PLAN (SMP)

Chinook Consulting Services (2004) Ltd (CCS) is committed to providing and maintaining the safest possible work conditions for all subcontractors by promoting the integration of safety management into all geological supervising processes.

It is also the responsibility of each subcontractor to follow every precaution and CCS safety rule and policy to protect themselves and their fellow workers.

CCS will monitor subcontractor performance to ensure compliance with CCS requirements. CCS will evaluate the subcontractor's safety performance. When performing work at CCS, each subcontractor:

- is responsible for his safety as required by the rules and regulations of CCS HSE Manual and all other local, provincial, and federally recognized current standards and codes.
- is responsible for its training and educating as to the contents and requirements for conduct of work under the CCS HSE Manual.

Purpose

The purpose of this program is to improve subcontractor health, safety and environmental performance and establish a standard for pre-qualification, evaluation/selection and development of our subcontractors.

Scope

This program applies to all subcontractors and all CHINOOK CONSULTING SERVICES locations.

General Requirements

All CHINOOK CONSULTING SERVICES subcontractors are to be managed in accordance with this program.

The use of subcontractors must be pre-approved by CHINOOK CONSULTING SERVICES. Approval requirements include:

- A formal safety review of the subcontractor being performed by CHINOOK CONSULTING SERVICES safety department.
- The scope of the review was commensurate with the hazards and risk exposure.
- Subcontractor has been/will be oriented to the safety policies, expectations and requirements of CHINOOK CONSULTING SERVICES.
- The subcontractor agrees to abide by our Drug and Alcohol policy as well as our and our client’s safety rules throughout the duration of the work.

Rejection Guidelines

Any subcontractor that has a “Non-Approved” safety status will not be used on any CHINOOK CONSULTING SERVICES site.

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In the event that a subcontractor does not have a health and safety manual, CHINOOK CONSULTING SERVICES would be responsible for making sure the subcontractor is aware of applicable health and safety policies, procedures and regulations. If a subcontractor does not have a health and safety manual they would be classified as “Non-Approved” and not utilized for services.

Contractor Safety Management Process

Pre-Qualification of Subcontractors

- Subcontractors will be pre-qualified by reviewing their safety programs, safety training documents and safety statistics.
- CHINOOK CONSULTING SERVICES must confirm subcontractors have valid Workers Compensation coverage. CHINOOK CONSULTING SERVICES must ensure it obtains proof of workers compensation coverage from their subcontractors. Subcontractors who are not required to have workers compensation coverage must obtain approval from their Owner Client(s) before they are allowed to enter the work site.

Evaluation Safety Metrics

Acceptable safety metrics will be used as criteria for prequalifying and selecting subcontractors.

HSE programs and training documentation are reviewed when selecting subcontractors. Written HSE programs and training documentation applicable to the type of work the subcontractor will perform are obtained and reviewed to assist with the hiring of safe subcontractors.

HSE statistics (workers compensation rate sheets) are reviewed when selecting subcontractors. Past performance is a key indicator of future performance. HSE statistics are obtained and analyzed to ensure that only safe subcontractors are hired. CHINOOK CONSULTING SERVICES will obtain a copy of the subcontractor's workers compensation rate sheet and compare their performance to others in their industry. Those who outperform the industry should be selected whenever practicable.

The safety metrics and scoring will consider:

- CHINOOK CONSULTING SERVICES Subcontractor Safety Pre-Qualification Form responses and subcontractor safety program documents review 60% (Rated from 0-60 total points)
- Subcontractor safety training documents review 20% (Rated from 0-20 total points)
- Subcontractor safety statistics (workers compensation rate sheets review 20% - Rated from 0-20 total points)

Evaluation Rating and Acceptance

The subcontractor rating system will have five designations:

- Equal to or Greater than 90 points = A – no restrictions.
- Between 85 and 89 points = B – Mitigation plan must be documented and approved by CHINOOK CONSULTING SERVICES Safety.
- Between 81 and 84 points = C – Mitigation plan must be documented and approved by CHINOOK CONSULTING SERVICES Safety; management approval in writing.

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- Between 71 and 80 points = D – Mandatory commitment meeting with senior subcontractor management present; mitigation plan documented and approved by CHINOOK CONSULTING SERVICES Safety; management approval in writing; trained subcontractor safety personnel on site during work regardless of number of workers.
- Less than 70 points = F – not to be used.

Once each subcontractor has been evaluated and scored, CHINOOK CONSULTING SERVICES Safety will provide management the scores/ranking.

CHINOOK CONSULTING SERVICES reserves the right to change a subcontractor's status to "Non-Approved" if the subcontractor shows insufficient progress towards accepted mitigation plan or other agreed upon criteria.

Subcontractor Involvement & Continual Improvement

Upon selection subcontractors are provided the following information:

- A site orientation is provided to subcontractors. Subcontractors must be provided a site orientation that addresses health, safety, security and/or environmental concerns.
- CHINOOK CONSULTING SERVICES is accountable for communicating the client's drug and alcohol policy to subcontractors. CHINOOK CONSULTING SERVICES must ensure that subcontractors are aware of the client's drug and alcohol policy. Subcontractors must adhere to the requirements of the drug and alcohol policy at all times while at the work site.

Contractors are required to follow the work practices and systems described below while performing work at CHINOOK CONSULTING SERVICES worksites in order to continually improve safety performance:

- Subcontractors are included in pre-job meetings and/or hazard assessments. Subcontractors shall be included in pre-job meetings and hazard assessments. Pre-job meetings can include information taken from a hazard assessment and any other safety or operational concerns.
- Monitor employees for substance abuse and report nonconformities to CHINOOK CONSULTING SERVICES.
- Ensure personnel have the required training and competency for their work.
- Participate in CHINOOK CONSULTING SERVICES tailgate safety meetings, regular periodic safety meetings, job safety analysis and on the job safety inspections.
- Perform a pre-job safety inspection that includes equipment.
- Participate in the BBS hazard reporting system.
- Report all injuries, spills, property damage incidents and near misses.
- Comply with onsite and Owner Client safety rules.
- Implement CHINOOK CONSULTING SERVICES safety practices and processes as applicable.
- Clean up and restore the worksite after the job is over.
- Ensure compliance with regulations at all times.
- Post-job performance reviews are conducted for subcontractors. A combination of factors may be considered including, but not limited to, housekeeping, cost, active participation in safety meetings and quality of work.

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Incident Management

CHINOOK CONSULTING SERVICES is accountable for reporting and investigating subcontractor incidents. CHINOOK CONSULTING SERVICES must ensure that subcontractors are aware of incident reporting requirements. Subcontractors must report all incidents to CHINOOK CONSULTING SERVICES. If a subcontractor is involved in an incident, CHINOOK CONSULTING SERVICES is responsible for reporting the incident to the Owner Client. CHINOOK CONSULTING SERVICES must ensure the incident is investigated.

The Following Forms that can be found in **Appendix – Forms** may be used

- Form 10 – Subcontractor Safety Pre-Qualification Form

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ENVIRONMENT PROTECTION

Purpose

Operating in an environmentally responsible way and complying with the law are key priorities of Chinook Consulting. As a minimum, Chinook Consulting and its employees and contractors are required to:

- Identify environmental requirements for the job;
- Obtain copies of regulatory approvals prior to commencing work;
- Ensure the required equipment and procedures are identified to manage the environmental impacts of worksite activities;
- Ensure that environmental incidents are reported and cleaned up to reduce long-term impact.

Contractors are responsible for ensuring that environmental issues for their activities are identified and addressed. To ensure all concerns are addressed promptly, contractors should review environmental issues at tailgate meetings.

Environmental Impacts

In the various stages of undertaking any oil and gas operation, there are a number of potential environmental impacts that must be considered. These are addressed in this section. Some of the more important issues are shown in the table on the following page.

Environmental Licenses and Approvals

In most cases, environmental requirements are identified in the licenses and approvals of the operating company's activities. Copies of all approvals must be available on location, reviewed with appropriate personnel and the terms of the approval fully complied with. These are normally included in the 'Land Package'.

Environmental Impacts

During our activities on the wellsite, the following environmental impacts can occur:

- Spills and releases
- Waste management problems
- Air emissions
- Noise concerns
- Environmental monitoring and reporting
- Alterations to local hydrogeology

Environmental Plans and Practices

In Alberta, the AER and Alberta Environment have established a number of environmental guideline and codes for key issues. In British Columbia, the Ministry of Environment and the Oil and Gas Commission

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have been granted the primary responsibility of environmental protection. A summary of relevant regulatory requirements and environmental codes and practices for each province where Chinook Consulting operates are included in this section.

Protection of the environment is the responsibility of Chinook Consulting and the employees, contractors and agents. To fulfill this commitment, Chinook Consulting's operating practices and procedures are consistent with the requirements established for the oil and gas industry.

As part of Chinook Consulting's overall environmental management system, provincial environmental reference summaries have been prepared to assist field operating personnel. Specific plans, programs and practices are implemented as required to address environmental regulations and manage the environmental issues.

Key environmental considerations for Chinook Consulting include:

Natural and Historic Resource Protection

Protecting natural and historic resources that may be impacted by company operations is a regulatory requirement and a priority. Key issues include:

- Wildlife and wildlife habitat, particularly endangered species.
- Aquatic resources including streams, lakes and rivers. Chinook Consulting is committed to using water responsibly including the use of recycling techniques, reusing water and focusing on using non-drinkable water as an alternative to fresh water. The Company supports the water conservation initiatives in Alberta and British Columbia.
- Archeology and Traditional Land Use sites. In Alberta, many of these issues are identified on Special Condition Areas for Resource Development published by Boyd-PetroSearch.

Waste Management Plans

Waste materials generated while conducting operations on behalf of Chinook Consulting require proper handling, storage and disposal. Contact the Chinook Consulting representative regarding the proper waste shipment or disposal requirements.

NOTE: When required, Chinook Consulting will hire qualified waste handling companies to assist with transporting, disposal and manifesting of Company wastes.

Spill Prevention and Response

Spills must be properly addressed as soon as they are discovered. The general procedures for spill response and treatment are provided later, in this section. These guidelines are focused on reducing the negative environmental impacts and liabilities associated with spills. This procedure will help personnel reduce the potential impact of spills.

References

The following regulation and practices are referenced in and/or pertinent to this section.

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Alberta Environmental Requirements

Alberta Environment

Alberta Statutes and Regulations must be consulted for all purposes of interpreting and applying the law. This consolidation may not contain maps, charts and graphs contained in the printed version. Copies of the Codes of Practice can be purchased on-line from Alberta Environment's Catalogue.

Environmental Protection and Enhancement Act

Code Of Practice For Compressor And Pumping Stations And Sweet Gas Processing Plants	Code Of Practice For Pesticides
Code Of Practice For Exploration Operations	Code Of Practice For Pits
Code Of Practice For Hydrologic Tracing Analysis Studies	Code Of Practice For Tanker Truck Washing Facilities
Code Of Practice For Landfills	Code Of Practice For The Release Of Hydrostatic Test Water From Hydrostatic Testing Of Petroleum Liquid And Gas Pipelines

Water Act

Code Of Practice For Pipelines And Telecommunications Lines Crossing A Water Body	Code Of Practice For The Temporary Diversion Of Water For Hydrostatic Testing Of Pipelines
Click here for the maps for the Code of Practice For Pipelines Crossing A Water Body (offsite)	Code Of Practice For Watercourse Crossings

Alberta Sustainable Resource Development

Submitting Environmental Field Reports	Industrial Wildfire Control Plans

AER Directives with Environmental Provisions

AER D001 Requirements for Site-Specific Liability Assessments in Support of the AER's Liability Management Programs	AER D037 Service Rig Inspection Manual
AER D034 Gas Well Testing, Theory and Practice	AER D038 Noise Control Directive - User Guide
AER D004 Determining Water Production at Gas Wells	AER D039 Revised Program to Reduce Benzene Emissions from Glycol Dehydrators
AER D006 Licensee Liability Rating (LLR) Program and License Transfer Process	AER D041 Adoption of CSA Z662-03, Annex N, as Mandatory

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AER D007 Production Accounting Handbook	AER D045 Digital Data Submission of Drilling Waste Disposal Notification
AER D008 Surface Casing Depth Minimum Requirements	AER D046 Production Audit Handbook
AER D009 Casing Cementing Minimum Requirements	AER D050 Drilling Waste Management
AER D010 Guide to Minimum Casing Design Requirements	AER D051 Injection & Disposal Wells - Well Classifications, Completions, Logging, & Testing Requirements
AER D011 Licensee Liability Rating (LLR) Program Updated Industry Parameters and Liability Costs	AER D055 Storage Requirements for the Upstream Petroleum Industry
AER D013 Suspension Requirements for Wells	AER D056 Energy Development Applications and Schedules
AER D015 Effect of Tensile Loading on Casing Collapse	AER D058 Oilfield Waste Management Requirements for the Upstream Petroleum Industry
AER D017 Measurement Requirements of Upstream Oil & Gas Operations	AER D060 Upstream Petroleum Industry Flaring Guide
AER D019 AER Compliance Assurance-Enforcement	AER D063 Oilfield Waste Management Facility Inspection Manual
AER D020 Well Abandonment Guide	AER D064 Requirements and Procedures for Facilities
AER D024 Large Facility Liability Management Program	AER D066 Requirements and Procedures for Pipelines
AER D027 Shallow Fracturing Operations-Interim Controls, Restricted Operations, and Technical Review	AER D070 Drilling Waste Disposal Inspection Manual
AER D029 and Brochure Energy and Utility Development Applications, the Hearing Process, and Cost Awards	AER D071 Emergency Preparedness and Response Requirements for the Upstream Petroleum Industry
AER D030, Digital Data Submission of the Annual Oilfield Waste Disposition Report	AER D075 Oilfield Waste Liability (OWL) Program
AER D036 Drilling Blowout Prevention Requirements and Procedures	

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British Columbia Environmental Requirements

British Columbia OGC Information Letters with Environmental Provisions

OGC 07-03 Benzene Emissions from Glycol Dehydrators
OGC 07-07 New ERP Requirements
OGC 07-04 Secondary Containment for Non-Production Tanks
OGC 07-17 - ERP Classification Requirements of Sour Wells
OGC 07-19 Canadian Standards Association CSA-Z662-07 Oil and Gas Pipeline Systems and Canadian Standards Association CSA-Z276-07
OGC 07-21 Measurement Requirements for Upstream Operations
OGC 08-01 Flaring, Incinerating and Venting Reduction Guidelines for BC
OGC 08-07 Submission Requirements for Initial Completion and Flaring
OGC 08-06 Guidelines for Performance-Based Archaeological Assessments
OGC 08-10 2008 Archaeology Audit Program Introduced
OGC 08-20 Multi-Well Pads and Well-to-Well Spacing
OGC 08-22 Changes to Suspended Well Inspection Form and Reporting
OGC 08-23 Planning and Construction Guide
OGC IL 09-05 Changes for Gas Well Testing with Associated Flaring
OGC IL 09 06 Pipeline Deactivation and Abandonment Process
OGC IL 09-07 Storage of Fracing Fluid Return
OGC IL 09-09 BC Noise Control Best Practices Guidelines for Oil and Gas
OGC IL 09-12 Changes to Well Suspension Requirements; BC OGC's Well Suspension Requirements and well suspension report form
(Note: A current listing of OGC Information Letters is posted on OGC's website)

Other BC Environmental Regulation

BC Environmental Management Act was brought into force on July 8, 2004. The Act replaces the *Waste Management Act* and the Environment Management Act and brings provisions from both of those acts into one statute. The Act is administered by the BC Ministry of Environment and may be applied to a major oil spill, industrial accident, or environmental emergency. The Act sets out requirements for disposal of oil and hazardous materials, spill prevention and reporting, and pollution abatement. Authority for provincial spill cost recovery is additionally provided by the Act.
Contaminated Sites Regulation (Environmental Management Act): The Contaminated Sites Regulation under the Environmental Management Act specifies the procedures for identifying a contaminated site, indicates remediation standards and clarifies responsibility for remediation.

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The British Columbia Field Sampling Manual sets out the sampling procedures, protocols and equipment that are required when doing monitoring required by the Ministry of Environment, including: • Part A: Quality Control and Quality Assurance • Part B: Air and Air Emissions Testing • Part C: Biological Testing • Part D: Soil and Sediment Sampling • Part E: Water and Wastewater Sampling • Ambient Freshwater and Effluent Sampling • Ground Water Pollution Monitoring • Effluent Flow Measurement
BC Land Act - The administration of Crown Land in the Province is carried out under the Land Act. Crown land means land, whether or not it is covered by water, or an interest in land vested in the Crown. The Land Act is administered by the BC Ministry of Agriculture and Lands and provides a focus for access to and management of crown resources.
Wildlife Act is administered by the Ministry of Environment. Provisions related to environmental emergencies include: Section 7 establishes that it is an offence to alter, destroy or damage wildlife habitat or deposit on land or water a substance or manufactured product or by-product if wildlife or wildlife habitat is harmed, and; Section 8 allows the government to recover damages and take a right of action against an individual or company.
BC Emergency Program Act is administered by Ministry of Public Safety and Solicitor General and provides enabling legislation that authorizes the Director of the Provincial Emergency Program (PEP) to declare and designate any area of the province a disaster area (i.e. State of Emergency), and during an emergency, to employ or summon the assistance of non-government personnel, to use private property, and initiate evacuations. The Emergency Program Management Regulation under the Act identifies the requirements for emergency plans and procedures, specifically, Schedule 1 of the regulation identifies the "key" ministries for emergency planning, preparedness and response of specific hazards. Examples: spill of oil and hazardous material undertaken by the BC Ministry of Environment, forest fire by the BC Ministry of Forests or seismic incidents by the Ministry of Public Safety and Solicitor General.
BC Fire Services Act is administered by the BC Office of the Fire Commissioner, which is part of the Ministry of Public Safety and Solicitor General. Section 25 of the act outlines emergency powers of the BC Fire Commissioner. If an emergency arises from a fire hazard or from a risk of explosion, the fire commissioner may immediately take the steps he thinks advisable to remove the hazard or risk. The commissioner may evacuate a building or area, and may call on the police and fire prevention authorities having jurisdiction for assistance.
Health Act is administered by the Ministry of Health and addresses health hazards and disease control. The act also provides powers to the provincial health officer and staff. Specifically, Section 55 requires persons who cause or permit the discharge of a substance that is or may be a health hazard into the land, water or air to notify the medical health officer and take immediate action to prevent and cease the discharge.

Spill Response Guidelines

An essential component of any environmental management policy is ensuring that an effective and appropriate spill prevention program is in place. An effective prevention program, as well as efficient

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clean up and recovery procedures, will help reduce negative environmental impacts and long-term liabilities.

This document is a guide to assist Chinook Consulting personnel and contractors to reduce the potential impact of spills on the environment with proper spill management through the implementation of the following three components:

1. Spill Prevention – Tank integrity and corrosion programs

2. Initial Spill Response – Containment, recovery and clean-up activities

3. Long Term Management – Larger spills (remediation, re-vegetation, etc.)

Chinook Consulting Representatives are instructed on and are familiar with proper spill response procedures summarized in this guideline which include:

- Spill Prevention
- Initial Response
- Spill Clean Up
- Spill Reporting
- Quick Action Reference Chart for Spills

IMPORTANT:
PLEASE KEEP IN MIND THE FOLLOWING STEPS WHEN MANAGING A SPILL:
1. SHUT IN AND BLEED DOWN SOURCE.
2. CONTAIN SPILL.
3. REPORT TO PROPER AUTHORITIES. (CHINOOK CONSULTING, CLIENT & REGULATORY)
4. IN THE EVENT OF A MORE SERIOUS SPILL, ADDITIONAL INFORMATION AND ASSISTANCE WILL BE REQUIRED FROM AN ENVIRONMENTAL SPECIALIST.

SPILL PREVENTION

Alongside the Operator, Chinook Consulting is also responsible for spill prevention. Spill prevention activity is concentrated around wellsite activities and vehicle operations.

Job Planning

The first step of prevention is to complete an assessment of the work-site and the jobs to be completed on location.

Spill response equipment and supplies must be available on lease and easily accessible when required. Considerations must be appropriate for both the type and quantity of materials that may be spilled

Primary Containment

The second step in prevention is to ensure the integrity of the primary containment system (canisters and associated equipment). A regular inspection of the canisters and associated equipment is a must, and is critical prior to transferring fluids to them.

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Secondary Containment

Additional precautions are to be taken in situations where the potential for spills has a higher frequency, or where the potential impact is high.

Initial Spill Response

Field production and contract staff are, in conjunction with Chinook Consulting's environmental advisors, responsible for initial spill response as follows:

- **Assess the situation** - Determine action, equipment and PPE required for control of the situation. For flammable liquids, eliminate ignition sources, avoid splashing onto clothing and wear rubber boots and gloves. A hazard may be created from flammable or H_2S vapors flashing off flammable or sour liquids (crude, water). The amount of vapor flashing will increase as the temperature rises or with agitation.
- **Stop the spill** - If possible, immediately shut off the source of the spill ensuring personal safety.
- **Contain the spill** - Prevent fluid from flowing off location or into a watercourse. Avoid excessive walking or driving on the spill area. Do not use absorbents on large spills. Consider ground disturbance guidelines if excavating bell hole.
- **Report the spill** - After the situation has been assessed and a response initiated, report the spill to Chinook Consulting and the appropriate authorities.

IMPORTANT: Never expose yourself or co-workers to danger when dealing with an emergency. Always protect human life first, and then respond to the situation. The health and safety of you, your co-workers and the public are the primary concern.

Spill Clean-Up

The most important consideration when addressing a spill is to ensure that the initial response and clean-up activities are undertaken immediately and effectively. Key clean-up activities, regardless of the size or type of spill, include:

- Recovery of the spilled fluid on site (including stained soil and debris).
- Removal of recovered fluids and stained soil and debris to an approved facility.
- Completion of a waste manifest, if required

NOTE: A more detailed spill response manual for each area of the province may be obtained from the Western Canada Spill Services Co-op.

In addition to the basic clean up activities identified above, the actions listed below have been designed to assist in completing the clean up as efficiently as possible. These actions are grouped by spill size and type, and include the following:

Small Spills

- Recover material using hand tools or absorbents.
- Place loose material / contaminated absorbents in pails, slop tanks, or waste disposal bin (appropriate compartment).

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- Dispose / treat material when time permits at an approved facility.
- Complete the Government Waste Manifest when removing spill material for disposal - if material is Dangerous Oilfield Waste (AB), Special Waste (BC), or Dangerous Goods Waste(SK).

Large Spills

- Contact a Chinook Consulting HSE representative and/or Operator's Representative if assistance is required regarding initial response, clean-up, contaminated material disposal, regulatory reporting, site closure or documentation requirements.

Post Clean-Up Requirements / Closure

Spills require an appropriate degree of long term management if any released produced fluid or chemical may remain in place after initial clean-up. If complete removal cannot be adequately determined visually (prior to drying or evaporation), sampling and analysis by a qualified individual must be carried out and properly documented.

Spill response equipment and supplies must be assessed, and the contents of spill response kits replaced to ensure the ongoing availability of response supplies.

Documentation and Filing Requirements

Spill site closure requires documentation of all response and remedial activities taken for the spill, including all records related to the spill clean up, manifests, sample results if required, etc. For small and large spills, pictures are an excellent documentation tool. This information is to be clearly marked **SPILL RESPONSE RECORDS** and shall be filed at the nearest field office and Chinook Consulting's HSE files in Calgary.

Spill Reporting

Once the spill is under control (contained), the incident must be reported internally and externally:

- Chinook Consulting's Incident Investigation Report and
- Government agency reporting (external) – only required for certain spills.

Chinook Consulting Reporting Requirements

When reporting spills to Chinook Consulting management, the following applies:

- All spills are reported internally using Chinook Consulting's Incident Investigation Report form within 24 hrs. of the occurrence.
- For drilling and completions, incident reports are to be included in the daily report.
- A sketch of the spill must be included with the incident report if the spill

Regulatory Reporting Requirements

When determining whether a spill must be reported to a government agency, answer the following questions:

- What type of material was released?
- What amount of material was released?

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- Was the spill contained on-lease?
- What province (jurisdiction) did the spill occur in?

If you are unsure if a spill is to be reported, or if the government agency requests a written report, contact your Chinook Consulting supervisor or a Chinook Consulting HSE representative for assistance. Chinook Consulting is responsible for submitting a written report.

Quick Action Reference Chart for Spills

ACTION	WHO IS RESPONSIBLE	WHEN
CLEAR THE AREA Evacuate everyone from the area that could be affected by the spill. Depending on spill size, the designated safe area may be the best place.	Person who finds the spill	Immediately
ASSESS THE SITUATION Determine action, equipment and PPE required for controlling the situation. For flammable liquids, eliminate ignition sources, avoid splashing onto clothing and wear rubber boots and gloves. A hazard may be created from flammable or H2S vapors flashing off flammable or sour liquids (crude, water). The amount of vapor flashing will increase as the temperature rises or with agitation.	Person who finds the spill, and/or supervisor.	Person who finds the spill, and/or supervisor.
STOP THE SPILL If possible, and safe, shut off the source of the spill – Immediately.	Person who found spill, or designated person	When wearing the proper P.P.E.
CONTAIN THE SPILL (dikes & absorbents) Prevent fluid from flowing off location or into a water course. Consider Ground Disturbance Guidelines before excavating bellholes. Avoid excessive walking or driving on the spill area. At no time endanger yourself in attempting to stop or change the flow of the material. Do not use absorbents on large spills.	Person who found spill, or designated person	When wearing the proper P.P.E.
CLEAN UP THE SPILL Recover any fluids and contaminated soil. Recovered fluids and contaminated soil are to be hauled to a disposal/treatment facility. A Waste Manifest is to be completed if required.	Designated crew(s)	As soon as practical
REPORT THE SPILL After the situation has been assessed and a response initiated report the spill to Chinook Consulting and the appropriate authorities. Contact Chinook Consulting's HSE Representative for assistance in determining proper clean up and disposal methods for fluids and contaminated soils.	Person who discovers spill reports to site supervisor, site supervisor to appropriate authority.	Immediately if spill is potentially harmful, if not potentially harmful after initial action

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HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT FORM

HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT		
Highest ranking HSE professional in the Subcontractor: Name/Title: Email:		Telephone Numbers
Do you have a written Basic Safety / HSE Program?	Yes ☐	No ☐
Does your Basic Safety/HSE Program include the following?		
a. HSE Policy statement signed by management	Yes ☐	No ☐
b. Management Involvement and Commitment	Yes ☐	No ☐
c. Hazard Identification and Risk Control	Yes ☐	No ☐
d. Rules and Work Procedures	Yes ☐	No ☐
e. Training	Yes ☐	No ☐
f. Communications	Yes ☐	No ☐
g. Incident and Accident Reporting and Investigation	Yes ☐	No ☐
Does the program include work practices and procedures such as?		
a. Permit to Work including Isolation of Energy	Yes ☐	No ☐
b. Confined Space Entry	Yes ☐	No ☐
c. Injury and Illness Recording	Yes ☐	No ☐
d. Fall Protection	Yes ☐	No ☐
e. Personal Protective Equipment	Yes ☐	No ☐
f. Portable Electrical/Power Tools	Yes ☐	No ☐
g. Motor Vehicle/Driving Safety	Yes ☐	No ☐
h. Compressed Gas Cylinders	Yes ☐	No ☐
i. Electrical Equipment Grounding Assurance	Yes ☐	No ☐
j. Powered Industrial Vehicles (Cranes, Forklifts, Etc.)	Yes ☐	No ☐
k. Housekeeping	Yes ☐	No ☐
l. Accident/Incident Reporting and Investigations	Yes ☐	No ☐
m. Unsafe Condition Reporting	Yes ☐	No ☐
n. Emergency Preparedness, Including Evacuation Plan	Yes ☐	No ☐
o. Waste Disposal and Pollution Prevention	Yes ☐	No ☐
p. Regular Workplace Inspection / Audits	Yes ☐	No ☐
Do you have a Drug and Alcohol program?	Yes ☐	No ☐
a. Pre-employment Testing	Yes ☐	No ☐
b. Reasonable Cause Testing	Yes ☐	No ☐
c. Post-rehabilitation/Return to Work Testing	Yes ☐	No ☐

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HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT – (continued)			
Do you have a Job Safety Analysis (JSA) process in place?		Yes ☐	No ☐
Is there a Root Cause Analysis process used for investigations, near misses, environmental spills?		Yes ☐	No ☐
Is there a Management of Change (MOC) Process in place?		Yes ☐	No ☐
Do you have programs for the following?			
a. Respiratory Protection		Yes ☐	No ☐
b. Where applicable, have employees been:			
Trained		Yes ☐	No ☐
Fit tested		Yes ☐	No ☐
Medically approved		Yes ☐	No ☐
c. Hazard communication/WHMIS		Yes ☐	No ☐
d. Programs for potential high hazard work such as Highly Hazardous Chemicals; Explosives and Blasting Agents		Yes ☐	No ☐
Do you have a corrective action process for addressing individual/employee safety and health performance deficiencies?		Yes ☐	No ☐
Medical			
a. Do you conduct medical examinations for:			
Pre-placement Job Capability		Yes ☐	No ☐
Pulmonary		Yes ☐	No ☐
Respiratory		Yes ☐	No ☐
b. Describe how you intend to provide first aid and other medical services while on-site.			
Do you have personnel trained to perform first aid and CPR?		Yes ☐	No ☐
Personal Protective Equipment (PPE)			
a. Is applicable PPE provided for employees?		Yes ☐	No ☐
b. Do you have a program to assure that PPE is inspected and maintained?		Yes ☐	No ☐
HSE Meetings			**Frequency**
a. Do you hold site HSE meetings for?			
Field Supervisors	Yes ☐	No ☐	
Employees	Yes ☐	No ☐	
New Hires	Yes ☐	No ☐	
Subcontractors	Yes ☐	No ☐	

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HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT – (continued)			
Inspections and Audits			**Frequency**
a. Do you conduct internal HSE Inspections?	Yes ☐	No ☐	
b. Do you conduct internal HSE program audits?	Yes ☐	No ☐	
c. Are corrections or deficiencies to internal HSE program or equipment communicated and documented until closure?	Yes ☐	No ☐	
Equipment and Materials:			
a. Do you own or lease Equipment and Materials? If yes, please complete the following questions:	Yes ☐	No ☐	
b. Do you have a system for establishing applicable health, safety, and environmental specifications for acquisition of materials and equipment?	Yes ☐	No ☐	
c. Do you conduct inspections on operating equipment (e.g., cranes, forklifts) in compliance with regulatory requirements?	Yes ☐	No ☐	
d. Do you maintain operating equipment in compliance with regulatory requirements?	Yes ☐	No ☐	
e. Do you maintain the applicable inspection and maintenance certification records for operating equipment?	Yes ☐	No ☐	
f. Do you document corrections or deficiencies from equipment inspections and maintenance?	Yes ☐	No ☐	
Subcontractor Management			
a. Do you subcontract any work? If the answer is yes, please complete the following questions:	Yes ☐	No ☒	
b. Do you have a written contractor safety management process?	Yes ☐	No ☐	
c. Do you use HSE performance criteria in selection of subcontractors?	Yes ☐	No ☐	
d. Do you evaluate the ability of subcontractors to comply with applicable HSE requirements as part of the selection process?	Yes ☐	No ☐	
e. Do your subcontractors have a written HSE Program?	Yes ☐	No ☐	
f. Do you include your subcontractors in:			
HSE Orientation	Yes ☐	No ☐	
HSE Meetings	Yes ☐	No ☐	
HSE Equipment Inspections	Yes ☐	No ☐	
HSE Program Audits	Yes ☐	No ☐	
Are corrections or deficiencies documented	Yes ☐	No ☐	

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HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT – (continued)

Employee and Trades Training		
a. Have employees been trained in appropriate job skills?	Yes ☐	No ☐
b. Are employees' job skills certified where required by regulatory or industry consensus standards?	Yes ☐	No ☐
c. List trades/crafts which have been certified:		

Health, Safety and Environmental Orientation	New Hires		Supervisors	
a. Do you have an HSE Orientation Program for new hires and newly hired or promoted supervisors?	Yes ☐	No ☐	Yes ☐	No ☐
b. Does the program provide instruction on the following:				
• New worker orientation	Yes ☐	No ☐	Yes ☐	No ☐
• Safe Work Practices	Yes ☐	No ☐	Yes ☐	No ☐
• Safety Supervision	Yes ☐	No ☐	Yes ☐	No ☐
• Toolbox meetings	Yes ☐	No ☐	Yes ☐	No ☐
• Emergency Procedures	Yes ☐	No ☐	Yes ☐	No ☐
• First Aid Procedures	Yes ☐	No ☐	Yes ☐	No ☐
• Fire Protection and Prevention	Yes ☐	No ☐	Yes ☐	No ☐
• Safety Intervention	Yes ☐	No ☐	Yes ☐	No ☐
• Hazard Communication/WHMIS	Yes ☐	No ☐	Yes ☐	No ☐

Health, Safety and Environmental Training		
a. Do you know the regulatory HSE training requirements for your employees?	Yes ☐	No ☐
b. Have your employees received the required HSE training and re-training	Yes ☐	No ☐
c. Do you have a specific HSE training program for supervisors?	Yes ☐	No ☐

Training Records		
a. Do you have HSE and training records for your Employee's?	Yes ☐	No ☐
b. Do the training records include the following:		
• Employee identification	Yes ☐	No ☐
• Date of training	Yes ☐	No ☐
• Name of trainer	Yes ☐	No ☐
• Method used to verify understanding	Yes ☐	No ☐

c. How do you verify understanding of training? (Check all that apply)

☐ Written test ☐ Oral test ☐ Performance test ☐ Job Monitoring ☐ Other (List)

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SHORT-SERVICE EMPLOYEE (SSE) PROGRAM

Objective

To ensure that contract short service Employees/Subcontractors are identified, appropriately supervised, trained, mentored, and managed in order to prevent accidents such as personal injury, injury to others, environmental damage, or property damage.

Key Practices

An initial employee orientation is required before performing work on locations. Orientation must be conducted by the person-in-charge and shall include the following as a minimum:

- Management Safety Commitment
- General Safety Rules (and obtain signature)
- General requirements for PPE
- Injury reporting and medical follow-up procedures
- Review regulatory and job skills training specific to immediate job tasks
- Required participation in safety meetings and pre-job on site
- Site-specific orientation presented by Company Representative. Minimum site specific orientation shall include operations overview, emergency action plan, facility sign-in and sign-out, hazard identification and reporting, MSDS information, H2S if applicable, etc.

Definition and applicability

- For purposes of this program, the term "short service" shall mean a length of service less than six months from the date of initial employment with the Company.
- Personnel who have previously been employed by the Company shall be subject to requirements of this program if they are separated from Chinook Consulting for longer that 90 days; or if the supervisor re-hiring the individual and/or the Safety Manager elect to classify the re-hired individual as a short-service employee for purposes of additional safety training, operator qualification, and/or extended orientation about the work assignment or site-specific situations, tasks or for other work-related reasons.
- The purpose of the program is to ensure that these subcontractor/employees have an initial orientation of safety requirements prior to performing work under direct on-site supervision of a designated contractor employee who also serves as a mentor/trainer.

Program Guideline

- The “Short Service Employee (SSE) Program” outlines minimum requirements of contractor companies using employees with less than six months service with the contractor company or in their craft.. The requirements are as follows:
- An initial employee orientation is required and the SSE’s will be monitored for compliance with HSE policies and procedures.

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- SSE's shall be kept to a minimum on a work location.
- The client will be notified when a SSE will be working at their site
- SSE's may only work under the direct on-site supervision of a designated experienced employee (never work alone).
- The Company Manager must provide written notification of all SSE's working.
- SSE's should be easily identifiable while on work locations (uniquely colored hardhats).

SEE Notification Process

The following describes the SSE notification process:

Stage	Description	
1.	The person-in-charge completes the top portion of the 'Short Service Employee (SSE) Notification form' listing any new SSE(s) on the job, signs the form, and submits to the company representative.	
2.	If… There are no exceptions to the SSE guideline	Then… The representative signs the form and the SSE(s) commence work.
	There are exceptions to the SSE guideline	The company representative signs the form and forwards (via fax if necessary) to the appropriate approval level based on the exception requested.
3.	The Company representative retains the approved 'SSE Notification Form' for the work area's files.	

Documentation Requirements

Completed 'Short Service Employee Notification Forms' must be retained in the appropriate file, or separate file folders established for each subcontractor. The form must be retained for a period of six (6) months

General Safety Rules

- It is your ***RIGHT AND OBLIGATION*** to prevent or cease work for any reason if you are concerned about safety, unsafe conditions, or hazards.
- You must report promptly to your supervisor any injury you sustain while at work. You are also encouraged to report accident details that did not result in personal injury or property damage, but could have if the circumstances had been different, via the Near Miss Reporting Process.
- ***NEVER*** run unless the situation is life threatening.
- ***NEVER*** engage in scuffling practical joking, or horseplay on the job.

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- Appropriate hearing protection ***MUST*** ***BE WORN*** in areas where signs are posted warning of excessive noise levels and in areas where equipment is being operated. Hearing protection must also be worn in posted areas that are suspected of temporary excessive noise.
- Safety hard hats ***MUST*** be worn on company work sites at all times.
- Everyone **MUST** wear approved safety glasses at all times while on Company work sites where the potential for eye injury exists. The only exception to this is when special-purpose eye protection is used.
- Steel toe safety boots ***MUST*** be worn on company work sites at all times.
- Clothing suited to the work, the weather, and the environment must be worn.
- Other PPE such as climbing harness for working at heights, face shield and goggles while grinding, proper gloves, etc… will be utilized as per the hazard assessment for that particular job task requires.
- Your supervisor or the Company person in charge **MUST** familiarize you with the following on your initial assignment at a work site:
    - Emergency, fire, and escape procedures (including alarm identification).
    - Potential for hazardous gases such as H2S.
    - Location of Muster Point.
    - Emergency, blow-out, and man injured alarms.

General Safety Rules Certification

This is to certify that I have received a copy of the company's General Safety Rules. I have read the rules and understand the contents and agree to abide by these rules. Also, I agree to visit with my supervisor and understand other applicable safety rules which apply to the specific work I will be performing on client's job sites and premises. I understand that by safety and the safety of others is my #1 responsibility. I will not take action until I understand the safe way to perform the tasks assigned to me. I agree to speak up and as necessary stop any job I recognize as unsafe.

Date: .....

Name (print): .....

Signature: .....

Social Security #: .....

Company Name: .....

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FATIGUE MANAGEMENT PROGRAM

Purpose

To ensure our employees recognize to effect of fatigue as related to safely being able to perform work and to establish guidelines for work hours and equipment to reduce fatigue in our business and at our client locations in Canada.

Scope

This program applies to all Chinook Consulting Services projects and operations.

Policy

The guiding principles of fatigue management shall be incorporated into the normal management functions of the business and include the following:

- Workers must be in a fit state to undertake work
- Workers must be fit to complete work
- Workers must take minimum periods of rest to safely perform their work

These principles will be managed through:

- The appropriate planning of work tasks, including driving, vehicle and equipment maintenance, loading and unloading and other job related duties and processes
- Providing appropriate equipment to help reduce stress and fatigue
- Regular medical checkups and monitoring of health issues as required by legislation
- The provision of appropriate sleeping accommodations where required
- Ongoing training and awareness of employee health and fatigue issues

Roles and Responsibilities

The following addresses the roles and responsibilities of workers to report tiredness/fatigue to supervision and that supervision take appropriate action to assist the worker.

Chinook Consulting Services Management

- Management accepts responsibility for the implementation of this fatigue management policy.

Site Manager

- Responsible for the implementation and maintenance of this program for their site and ensuring all assets are made available for compliance with the program.

Workers

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- Workers must present in a fit state free from alcohol and drugs.
- Workers must never operate motor vehicles and/or heavy equipment while excessively fatigued.
- Workers must not chronically use over-the-counter, prescription drugs and any other product which may affect an employee's ability to perform their work safely, including fatigue that sets in after the effects of the drug wear off.
- Workers must report fatigue to their supervisor. Supervision must take appropriate actions to prevent loss.
- Workers need to be rested prior to starting work.
- Workers need to monitor their own performance and take regular periods of rest to avoid continuing work when tired.

Work Hour Limitations and Rest Breaks to Control Fatigue and Increase Mental Fitness

Work schedules are managed to help control worker fatigue.

Chinook Consulting Services will set work hour limitations and will control job rotation schedules to control fatigue, allow for sufficient sleep and increase mental fitness. Work scheduling should take into consideration the amount of rest between workdays, shift work, on-call time, traveling across different time zones, etc.

Workers should take periodic breaks to minimize fatigue and increase mental fitness. Chinook Consulting Services should provide sufficient rest breaks for workers to allow for rest and recovery time. Depending on the location, this may also include access to proper nutrition and opportunities for physical activity.

- Every worker shall have necessary work breaks in order to avoid fatigue. These scheduled breaks will apply to both driving and on site hours. The following shall be a minimum:
    - 15 Minutes each 2.5 hours
    - 30 Minutes after 5 Hours
    - 30 Minutes after 10 Hours
- No worker shall work more than:
    - 12 hours per day
    - 24 Days Continuous

Use of Ergonomic Friendly Equipment

Ergonomic equipment will be used to improve workstation conditions such as anti-fatigue mats for standing, lift assist devices for repetitive lifting, proper lighting and controls of temperature and other ergonomic devices as deemed appropriate. Equipment to be used will be determined in the work task analysis.

Analysis of Work Tasks to Control Fatigue

Job tasks are designed to minimize/control fatigue. Work tasks to control fatigue must be analyzed and evaluated periodically. Fatigue hazards should be minimized. Examples of fatigue hazards include the

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type of work task, the length of the task, workplace conditions, etc. This will be included in the site specific hazard analysis.

Incident Analysis

If there is an incident there shall be an initial identification/assessment of evidence. Initial identification of evidence immediately following the incident might include a listing of people, equipment, materials involved and a recording of environmental factors such as weather, illumination, temperature, noise, ventilation, etc. and physical factors such as fatigue, age and medical condition.

Initial and Annual Training for Workers on Fatigue and Controlling Fatigue

- Workers are provided training on the Fatigue Management program. Training must be provided on how to recognize fatigue, how to control fatigue through appropriate work and personal habits and fatigue reporting.
- Workers will receive initial and annual training.
- A record of individual fatigues training and competency will be maintained.

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INCIDENT INVESTIGATION AND REPORTING BEST PRACTICES

Purpose

The purpose of this program is to have effective procedures for reporting and evaluating/investigating incidents and non-conformances in order to prevent further occurrences.

Responsibilities

Individual responsibilities for reporting and investigation must be pre-determined and assigned prior to incidents.

Chinook Consulting Services Safety Manager

Ensures investigations are conducted and assists in identifying corrective actions.

Site Manager and Supervisors

Investigates (or assists in) incident investigations

Corrects non-conformances

Accompany injured employees to the medical provider for initial treatment.

Employees

Employees must report incidents immediately after they occur. When an employee is involved in a work related incident or is aware of a condition that may cause one the employee must report the incident as soon as possible to Chinook Consulting Services. Incidents include any near miss, injury, job related illness, spill or damage to any property to their immediate supervisor. If their immediate supervisor is not available the employee is then to immediately notify the project manager. Employees who could be first responders will be trained and qualified in first aid techniques to control the degree of loss during the immediate post-incident phase.

Procedure

After immediate rescue or response, actions to prevent further loss will occur if the scene is safe. For example, maintenance personnel should be summoned to assess integrity of buildings and equipment, engineering personnel to evaluate the need for bracing of structures, and special equipment/response requirements such as safe rendering of hazardous materials or explosives employed.

Investigations of Incidents & Non-conformances

Investigation is an important part of an effective safety program in that it determines the root cause and corrective actions necessary to prevent similar incidents or non-conformances.

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The following must be reported to the employee's supervisor immediately. If that person is not available then the Chinook Consulting Services Safety Manager shall be immediately notified for:

- Near miss incidents with the potential to harm people, the environment or assets
- Work related injuries or illnesses; Property damage including vehicle incidents
- Hazardous chemical spillage, loss of containment and contamination
- Non-conformance to safety or environmental rules, policies or standards

The supervisor shall make the necessary notifications and begin the incident investigation process.

In the case of a major injury or incident the scene of the event should be closed off and kept "as is" at the time of the incident. This is vital for effective incident investigation.

All incidents are investigated promptly. When Chinook Consulting Services has been notified of a work related incident it shall appoint qualified personnel to complete an investigation of the incident. The investigation should take place as soon as possible after the incident while the facts are still fresh within the minds of those involved (i.e. witnesses). Take the opportunity to talk to all of those involved before they become unavailable or memory fades. An incident investigation must be thorough and concerned only with cause and prevention and must be separate from administrative disciplinary action.

Equipment

Equipment shall be made available and may include some or all of the following items; writing equipment such as pens/paper, measurement equipment such as tape measures and rulers, cameras, small tools, audio recorder, PPE, flags, equipment manuals, etc. The Safety Manager shall have an incident investigation kit prepared in advance.

Incident Reporting Matrix

The Incident Reporting Matrix identifies, based on type of incident, who within corporate management shall be verbally notified and when. It also specifies which type of report from the field shall be completed based on the type of incident.

Reporting of the incident must occur in a specified manner based on site specific requirements and the reporting sequence shall be posted.

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External Incident Notification Matrix

Type of Incident	Who to Notify Verbally	When	Incident Report form
Minor First Aid	Owner Client	24 hrs	Yes
Injury Above Minor First Aid	911 / Site Medical Response / Owner Client	ASAP	Yes
As Required Injury Reporting	Local Regulatory / Owner Client	Within 8 hrs	Yes
Fire / Explosion	911 / Site Fire Response / Owner Client	ASAP	Yes
Reportable Spill	Site Environmental / Owner Client	Within 24 hrs	Yes
Property/Vehicle Damage	Owner Client	Within 24 hrs	Yes

Internal Incident Notification Matrix

Type of Incident	Who to Notify Verbally	When	Incident Report form
Minor First Aid	Safety Manager	ASAP	Yes
Injury Above Minor First Aid	Safety Manager	ASAP	Yes
As Required Injury Reporting	President then Safety Manager	ASAP	Yes
Fire / Explosion	Safety Manager	ASAP	Yes
Reportable Spill	Safety Manager	ASAP	Yes
Property/Vehicle Damage	Safety Manager	ASAP	ASAP

Incident Review Team and Incident Investigation Report

Contributing factors and/or root causes are identified and documented. The written incident investigation report shall include an explanation of the contributing factors or root causes of the incident that were identified during the investigation.

All incidents shall be investigated and the extent of such investigation shall reflect the seriousness of the incident utilizing a root cause analysis process or other similar method determined by the Chinook Consulting Services Safety Manager. They will form an Incident Review Team that participates in the determination of the final root cause investigative incident report. The team consists of representatives of management or other designees as assigned by the Chinook Consulting Services Safety Manager.

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Initial identification of evidence immediately following the incident could include a listing of people, equipment, and materials involved and a recording of environmental factors such as weather, illumination, temperature, noise, ventilation, etc.

Evidence such as people, positions of equipment, parts, and papers must be preserved, secured and collected through notes, photographs, witness statements, flagging, and impoundment of documents and equipment. All shall be dated.

Witness interviews and statements must be collected. Locating witnesses, ensuring unbiased testimony, obtaining appropriate interview locations, and use of trained interviewers should be detailed. The need for follow-up interviews should also be addressed. All items shall be dated.

The final incident investigation report consists of findings with critical factors, evidence, corrective actions, responsible parties, and timelines for corrective action completion.

Results of incident investigations are communicated to employees via the Incident Notice form.

Field Incident Report Form

Incident investigations are documented. After the investigation of the incident Chinook Consulting Services shall prepare a written report including the description of the incident, any evidence collected during the investigation, an explanation of the causes of the incident and corrective actions required or recommended. Written incident reports will be prepared via the Field Incident Report Form and a detailed narrative statement concerning the events. The format of the narrative report may include an introduction, methodology, summary of the incident, Incident Review Team member names, narrative of the event, findings and recommendations. Photographs, witness statements, drawings, etc. should be included.

The supervisor completes the Chinook Consulting Services Field Incident Report and takes the below steps when beginning an incident investigation.

- Provide emergency assistance, as needed and qualified for
- Secure the area as quickly as possible to retain area in the same condition at the time of the incident
- Notify management by phone according to the Incident Notification Matrix
- Identify potential witnesses
- Use investigation tools, as needed (camera, drawings, video, etc.)
- Tag out for evidence any equipment that was involved
- Interview witnesses (including the effected employee) and obtain written, signed statements and fax to the Chinook Consulting Services Safety Manager
- Prepare Chinook Consulting Services Field Incident Report, sign the form, fax it to the Chinook Consulting Services Safety Manager
- Implement any immediate corrective actions needed

Incident Notice Form

Lessons learned will be reviewed and communicated via the Incident Notice Form. Changes to processes must be placed into effect to prevent reoccurrence or similar events.

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In order to communicate incident information and lessons learned from incidents the Chinook Consulting Services Safety Manager shall send the Incident Notice to all work sites. The form shall be posted on employee bulletin boards and shall be discussed in weekly safety meetings until all employees at the job site have been informed of the incident.

Corrective Actions

Corrective actions are identified and implemented to prevent a recurrence of the incident. The written incident investigation report shall include any immediate corrective actions that were taken as well as any long term actions that are required to prevent the recurrence of the incident. Individuals will be assigned responsibilities relative to the corrective actions, and these actions will be tracked to closure.

Site Managers are held accountable for closing corrective actions. Corrective actions for safety improvement input are posted at each site and tracked by the Chinook Consulting Services Safety Manager to ensure timely follow up and completion.

Corrective actions are also used as needed for revisions to site specific safety plans and the Chinook Consulting Services Safety and Health Management System.

Injury Classifications

Injuries shall be classified per the following:

- *First Aid* – Dressing on a minor cut, removal of a splinter, typically treatment for household type injuries.
- *Lost Work Day Case (LWDC)* – An injury that results in an employee being unfit to perform any work on any day after the occurrence of an occupational injury.
- *Number of Lost or Restricted Work Days* – The number of days, other than the day of occupational injury and the day of return, missed from scheduled work due to being unfit for work or medically restricted to the point that the essential functions of a position cannot be worked.
- *Occupational Injury* – An injury which results from a work related activity.
- *Occupational Illness* – Any abnormal condition or disorder caused by exposure to environmental factors while performing work that resulted in medical treatment by a physician for a skin disorder, respiratory condition, poisoning, hearing loss or other disease (frostbite, heatstroke, sunstroke, welding flash, diseases caused by parasites, etc.). Do not include minor treatments (first aid) for illnesses.
- *Recordable Medical Case (RMC)* – An occupational injury more severe than first aid that requires advanced treatment (such as fractures, more than one stitch, prescription medication of more than one dose, unconsciousness, removal of foreign body embedded in eye (not flushing), admission to a hospital for more than observation purposes) and yet results in no lost work time beyond the day of injury.
- *Restricted Work Day Case (RWDC)* – An occupational injury which results in a person being unfit for essential functions of the regular job on any day after the injury but where there is no time lost beyond the day of injury. An example would include an injured associate is kept at work but not performing within the essential functions of their regular job.
- *Work or Work Related Activity* – All incidents that occur in work related activities during work hours, field visits, etc. are reportable and are to be included if the occupational injury or illness is more

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serious than requiring simple first aid. Incidents occurring during off hours and incidents while in transit to or from locations that are not considered an employee's primary work are not reportable.

The following are examples of incidents that will not be considered as recordable:

- The injury or illness involves signs or symptoms that surface at work but result solely from a non-work-related event or exposure that occurs outside the work environment.
- The injury or illness results solely from voluntary participation in a wellness program or in flu shot, exercise class, racquetball, or baseball.
- The injury or illness is solely the result of an employee eating, drinking, or preparing food or drink for personal consumption (whether bought on the employer's premises or brought in). The injury or illness is solely the result of an employee doing personal tasks (unrelated to their employment) at the establishment outside of the employee's assigned working hours.
- The illness is the common cold or flu (Note: contagious diseases such as tuberculosis, brucellosis, hepatitis A, or plague are considered work-related if the employee is infected at work).

Training

Investigation team members are provided training on investigation techniques. Members of the incident investigation or review team shall be qualified and competent individuals. Chinook Consulting Services shall provide training on the investigation techniques used during an incident investigation. Training shall occur prior to responsibilities to response or investigation duties are assigned. Training frequency will be based on the specific are of responsibility but shall not exceed once every two years. Training requirements relative to incident investigation and reporting shall include:

- Awareness
- First Responder Responsibilities
- The Initial Investigation at the Accident Scene
- Managing the Accident Investigation
- Collecting Data
- Analyzing Data
- Developing Conclusions and Judgments of Need
- Reporting the Results

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MANAGEMENT OF CHANGE

Purpose

The purpose of this standard is to assure appropriate review occurs before process and structural changes are made to Chinook Consulting Services facilities, processes and equipment.

A thorough review of the change should improve the operability and reliability of the change, control the introduction of hazards into the workplace, improve decision-making through collaboration, promote effective communications and teamwork, and ensure conformance with policy, standards, codes and regulations as they apply to Chinook Consulting Services operations.

Scope

This document is applicable to all employees.

General Requirements

- A pre-project review must be completed during the planning/development stage. Before a change to facilities, equipment, or work process has been initiated, a review shall be completed to ensure that health, safety, environmental and/or quality standards can be maintained while staying on budget.
- Prior to any change within the scope of this policy, a safety review is to be completed using the Management of Change Procedure Form.
- It is the responsibility of the individual or team proposing the change to follow this procedure and complete the safety review prior to making any changes.
- Once the review has been completed by the individual or team, it must be approved by the Project Manager, as well as senior overseeing Chinook Consulting Services manager and Safety Manager.
- At the completion of the change, the Project Manager and Safety Manager shall audit the changes against the approved plan.

Procedure

The Management of Change (MOC) process must be completed for all changes, except replacement in kind. The MOC process must be used for all permanent and temporary changes to the organization's work processes, equipment, and facilities.

A pre-start up review must be completed prior to the change being put into service. Before a change to facilities, equipment, or work process can be placed into service a pre-start up review must be completed to ensure that all requirements outlined in the pre-project review have been addressed, and to ensure that any other possible hazardous conditions are assessed.

All affected personnel/ stakeholders participate in the Management of Change process. Pre-project and pre-start up reviews will include all interested parties. This may include, but is not limited to, Operations,

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Engineering, Information Technology, Sales/ Marketing, Quality Assurance, and Environmental, Health and Safety.

Describe in detail all proposed changes to the following areas on the Management of Change Procedure Form. Examples include:

- Utility and Energy Requirements: electrical, hydraulic, compressed air, steam, etc., piping pressures and sizes for liquid and gas supplies, all means for de-energizing utilities provided and identified.
- Hazardous Materials: names and descriptions, MSDSs, concentrations, size and type of packaging, flash point, flammable limits, storage requirements, temperatures, etc.
- Waste Disposal: waste generated, containers to be used and locations, amounts, flammability, toxicity, reactivity, ingredients, associated wastes such as gloves and rags, disposal locations, etc.
- Personal Protective Equipment: types required for hazards present or anticipated.
- Personnel: types of training required for hazard communication, waste disposal, PPE, work permits, confined space, moving vehicles, cranes, fire protection, lockout/tagout, new equipment, shifts to be involved, use of temporary employees, qualifications of operators, testing of operators.
- Material Handling: lifting devices required, cranes required, weights to be handled mechanically and manually, forklift requirements, rack storage requirements, access to racks by forklifts, power requirements for lifting aids.
- Fire Protection: access to existing fire extinguishers and fire hoses, sprinklers protected and not obstructed, emergency response procedures.
- Walking Surfaces: Access to aisles, aisles not used for working, aisles designated, clean and smooth surfaces, floor mats, trip hazards.
- Machinery and Equipment: guarding requirements, power transmission guarding, nip points, sharp edges, foot treadles, energy sources, new equipment and tools, maintenance requirements, equipment bolted to the floor, energy isolating requirements (lockout/tagout), special tools required, automatic start or intermittent operations.
- Ergonomics: illumination, noise, worker position and posture, vibration, floor space, machine controls, repetition, force, tool use, heat and cold, emergency stop location.
- Ventilation: airborne contaminants (vapour, gas, dusts, fumes, mists, smoke, vehicle exhaust, etc.), control, methods, amounts of emissions, local and general (dilution) ventilation, CFM, permits required.
- Radiation Sources: ultra-violet radiation from arc welding, laser, light energy from cutting, plasma, microwave, radio frequency, etc.

The Following Forms that can be found in **Appendix – Forms** may be used

- Form 12 – Management Of Change Procedure Form

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VEHICLE SAFETY POLICY

Purpose

The purpose of this program is to protect employees from safety hazards that may be encountered while driving or operating vehicles.

Scope

When work is performed on a non-owned or operated site, the operator's program shall take precedence; however, this document covers Chinook Consulting Services employees for awareness purposes and shall be used when an operator's program doesn't exist.

Driving Safety Requirements

Drivers must possess a valid driver's license. Operators of Chinook Consulting Services or client on or off road vehicles are responsible for possessing a valid driver's lines for the type of motor vehicle they operate.

Driver abstracts are obtained and reviewed for all drivers of Chinook Consulting Services owned vehicles or drivers of client vehicles. A driver abstract contains information on the operator's license, conviction information, demerit points and suspensions.

Drivers shall have 3 years of driving experience on the vehicle he/she is licensed to drive and regularly drives.

Backing is prohibited whenever practicable. Pull-through (pulling through a space so the vehicle is facing outwards in the next space) parking techniques are to be employed in parking lots wherever practicable. Where pull-through techniques can not be utilized operators of motor vehicles should back into the parking spot. This provides the operator an easier exit from the parking area as well as a quick exit in case of an emergency. A spotter should be used if required to back up.

Drivers must have either a reversing alarm, use a spotter or walk around the truck/trailer prior to backing.

Cargo must be adequately secured. Passenger compartments are to be free from loose objects that might endanger passengers in the event of an incident. Any cargo on or in motor vehicles must be adequately stored and secured to prevent unintentional movement of the equipment which could cause spillage, damage to the vehicle or injury to the operator.

Vehicles (light vehicles, heavy vehicles and trailers) may not be modified without the endorsement of the manufacturer.

Signs, stickers or labels are to be fitted in such a manner that they do not obstruct the driver's vision or impede the driver's use of any controls.

Employees driving vehicles must:

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- Be expected to obey all local and provincial traffic laws and rules of the road as well as requirements of clients while on company business.
- Immediately report any motor vehicle incident, citation, warning, vehicle damage or near miss associated with employer or client owned or leased vehicles to the Chinook Consulting Services supervisor. The general procedures include:
    - Immediately call for medical assistance if there are any injuries associated with the incident.
    - Then notify local law enforcement if on public roads or property. Stay at the scene.
    - Then notify Chinook Consulting Services supervisor of the situation and if directed also notify the client if on client property.
    - Following any vehicle incident there shall be a drug and alcohol screening.
- Immediately report any incident, restriction or change to their driving privileges to the supervisor.
- Seat belts shall always be worn by the driver and all passengers. Seat belt use is mandatory for the driver and passengers while operating a motor vehicle.
- All vehicles capable of more than 10 mph/15 kph shall have seat belts installed.
- Defensive drivers continually assess conditions and hazards and remain prepared for any challenge that may approach them.
- When speaking with a passenger, always keep your eyes on the road.
- Both hands on the wheel.
- Handheld use of cell phones and/or texting devices while driving is prohibited. All cell phone use, including hands-free, is prohibited while operating a vehicle on any road including when on owner client property.
- Slow down around construction, large vehicles, wildlife, fog, rain, snow, or anything else that adds a hazard to your driving.
- Drive for conditions, not just the speed limit.
- Operators of motor vehicles must not drive while under the influence of alcohol or drugs. Employees are strictly prohibited from operating a motor vehicle while under the influence of drugs or alcohol. This includes blood alcohol level at or above the local legal limit, illegal drugs and prescription medications that cause drowsiness or other conditions that may cause impairment.

Pre-Use Inspections:

Pre-Use inspections must be completed before operating motor vehicles and regular maintenance performed as per manufacturer guidelines. Elements of the pre-use inspection shall include:

- Perform 360 walk around – report new damage or defects.
- Check windshield for cracks that could interfere with vision.
- No barriers blocking the path.
- Inspect for vehicle damage and immediately report any damage to the supervisor if not previously observed.
- Make sure dirt or snow is removed from lights on all sides of the vehicle.
- Brush or clean off snow or ice on all windows to ensure complete vision.
- Check fuel level to be certain the destination can be reached.
- Check to ensure the license plates and inspection tag on vehicle are current.

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- Ensure that there is a first aid kit and inspected fire extinguisher in the company vehicle.
- Ensure driver is rested and alert for driving.
- Employees are not to perform repairs or maintenance other than routine fluid additions.

Maintenance and Vehicle Requirements

- Each site shall have a maintenance program in place meeting the minimum manufacturers recommendation.
- All company vehicles shall be outfitted with an adjustable steering column.
- All company vehicles shall be outfitted with an independently adjustable driver's seat (at a minimum, moveable forward and rearward).
- All company vehicles will be outfitted with a functional air conditioning/heating system that is able to maintain an in-cab temperature range of 5*C/41*F to 30*C/86*F under all local climatic and driving conditions and the air conditioning unit will use a non ozone-depleting refrigerant.
- All drivers of light vehicles shall carry a high visibility jacket for use in case of emergency stops.
- All instrumentation will be in the local unit of measurement (e.g. speedometer, fuel gauge).
- All light duty vehicles (including buses) are to be equipped with an adjustable left, right and central rear view mirrors.
- All light duty vehicles carry a minimum of one collapsible hazard warning triangle.
- All light equipment vehicles shall be outfitted with two red high-intensity lights located as high, as far apart, and as far back as practical, wired to the headlight switch, but also with an override switch, if permitted by local regulations.
- All light vehicles registered after July 1, 2006 will be equipped with Anti-Lock Braking Systems (ABS).
- All light vehicles shall be equipped with a securely stowed first aid kit.
- All seats are to be fitted with headrests. Where practical all company vehicles will be outfitted with a radio, cassette or cd player (or equivalent) to help reduce driver fatigue.
- All vehicle door locking systems will be equipped with an override in order that occupants can open the doors after the vehicle has been locked externally.
- All vehicles are to be equipped with a multipurpose fire extinguisher with a capacity of at least 0.9 kg/2 lb. The fire extinguisher shall be securely mounted on a bracket and located so that it is easily accessible in an emergency without becoming a hazard in case of an incident.
- All vehicles shall have a mobile phone, 2-way radio, or other such communication device that allows communication with emergency response personnel or Chinook Consulting Services managers.
- All vehicles will be outfitted with an adjustable steering column and the vehicle steering wheel will be located on the left hand side of the vehicle.
- Driver shall ensure that passenger compartments are free from loose objects that might endanger passengers in the event of an incident.
- Drivers must have a reversing alarm, use a spotter or walk around the truck/trailer prior to backing.
- Drivers shall have 3 years of driving experience on the vehicle he/she is licensed to drive and regularly drives. All vehicles will be equipped with a mobile phone, 2-way radio, or other such communication device that allows communication with emergency response personnel or company managers.
- No passengers are allowed on trucks used to deliver goods.

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- No vehicle less than 1000 kg is to be used on public roads. All company vehicles (light, heavy and trailers) shall be suitable for operation in local climate conditions.
- Only seats fitted with three-pointed inertia-reel type seatbelts shall be used.
- Rollover protection will be installed in any vehicle to address high risk environments. The rollover protection engineered will conform to recognized regulatory standard and industry preferred practices.
- Tire type and pattern is to be recommended by the vehicle or tire manufacturer for use on the vehicle in the area of operation.
- Tires are to be radial with a minimum tread depth of 1.6mm [1/16 inch], 2.0mm across 75% of the tire width and tread-pattern visible across 100% of the tire.
- Tires, including spares if full size, are to be of same type, profile and tread pattern, except when the vehicle or tire manufacturer recommends a different type for certain axles.
- Vehicles (light vehicles, heavy vehicles and trailers) may not be modified without the endorsement of the manufacturer.
- Vehicles are to be fitted with a spare wheel and changing equipment to safely change a wheel, or a suitable alternative.
- Vehicles longer than 6 meters/20 feet or with restricted rear view (i.e. pickup trucks that are fully loaded) are to be fitted with an audible reversing alarm.
- Vehicles must be safety parked prior to using a mobile phone or 2-way radio.
- Vehicles shall be outfitted with an independently adjustable driver's seat (at a minimum, moveable forward and rearward).

Maintenance records

- Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]
- Maintenance records must be kept, including but not limited to
- the name of manufacturer,
- the type of equipment,
- the date put into service,
- when and for what purpose the equipment has been used,
- the date of the last inspection and name of the inspecting person,
- any damage suffered, and
- the date and nature of any of maintenance.
- Maintenance records must be available upon request to any worker concerned with the safe operation of the equipment or to an officer.

Investigating and Reporting Incidents

It is your responsibility and duty, as an employee or a contractor, to report unsafe acts or conditions. Health, Safety and Environment incidents on contractor sites must be reported.

All incidents including injuries, work-related illnesses, and vehicle accidents and property damage, must be reported to your supervisor, the appropriate government agencies and the Company Representative on site as soon as possible, and within 24 hours. Failure to report an injury may impede and/or result in

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loss of compensation. Hazards that have the potential for causing an incident (i.e. near miss) must also be reported to the Company Representative.

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Pickup Truck – Recommended Maintenance

Mileage	15k	30k	45k	60k	75k	90k	100k	105k	120k	135k	150k
Inspect brake pads, shoes, rotors and drums, brake lines and hoses, and parking brake system	X	X	X	X	X	X		X	X	X	X
Change automatic transmission fluid		X		X		X			X		
Replace fuel filter		X		X		X			X		X
Inspect PCV for flow (3V engines)											X
Inspect engine cooling system and hoses	X	X	X	X	X	X		X	X	X	X
Replace engine air filter		X		X		X			X		X
Inspect wheel ends for end play and noise	X	X	X	X	X	X		X	X	X	X
Change engine coolant							X				X
Replace accessory drive belts (if not replaced within last 100,000 miles)											X
Inspect complete exhaust system and heat shields		X		X		X			X		X
Replace cabin air filter, if equipped	X	X	X	X	X	X		X	X	X	X
Replace spark plugs							X				
Inspect automatic transmission fluid level (if equipped with under hood dipstick)	X	X	X	X	X	X		X	X	X	X
Inspect accessory drive belt(s)							X				
Change transfer case fluid											X
Change front axle lubricant											X
Inspect and lubricate steering linkage, ball joints, suspension, half shafts, drive shaft and u-joints	X	X	X	X	X	X		X	X	X	X

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FLAMMABLE AND COMBUSTIBLE SUBSTANCES

(HIGHEST INDUSTRY STANDARDS)

Purpose

The purpose of this program is to provide fire safety planning regarding fire, explosion, combustible materials and appropriate planning.

Scope

Applies to all Chinook Consulting Services employees.

Responsibilities

The safety manager is responsible for developing procedures for the design of fire safety plans and procedures at each Chinook Consulting Services work site. The site manager is responsible for implementing the requirements and training at his or her location. The supervisors are responsible for enforcing the provisions of this section of the safety manual. All employees are responsible for following these provisions.

Safety Manager

Develops local first aid plans or procedures for all worksites in accordance with this procedure and ensures employees are aware of the requirements of the fire and explosion prevention program plans or procedures.

Worksite Project Manager

Responsible for the implementation and maintenance of the fire and explosion prevention program for their facility and ensuring all assets are made available for compliance with the procedure.

Employees

All employees are responsible for following these provisions and attending specified training.

Planning

Chinook Consulting Services develop a site specific fire safety plan which will include consideration of the following:

- Flammable and combustible substances are stored separately from ignition sources. Any source of ignition is prohibited in areas where flammable and combustible sources are stored. This includes cigarette smoking, sparks from welding or grinding, open-flames, etc. No flammable source is permitted in areas where combustible dusts present a fire or explosion hazard.

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- The emergency procedures to be used in case of fire, including: sounding the fire alarm, notifying the fire department and evacuating endangered workers, with special provisions for workers with disabilities.
- Flammable and combustible substances are stored separately from substances they might react with. Flammable and combustible substances must be stored in areas away from substances that may cause a reaction, such as an oxygen tank.
- The designation of persons to carry out the fire safety plan and the duties of the designated persons.
- Training of designated persons and workers in their responsibilities for fire safety.
- Holding of fire drills at least once during each 12-month period.
- Conductive containers are electrically bonded to each other or electrically grounded during transfer of contents. When transferring flammable and combustible liquids from one conductive container to another, grounding and bonding must be used to prevent the build-up of static electricity.
- Workers must not enter or remain in a work area if more than 10% of the lower explosive limit (LEL) of an explosive substance is present in the atmosphere. Where work or manufacturing processes involve the use of a flammable liquid, vapour, or gas, the concentration of the liquid, vapour, or gas in the work area shall be maintained a minimum of 10% below the lower explosive limit (LEL) of the substance involved.
- Good housekeeping and preventative maintenance on all equipment shall be maintained to prevent fire hazards from occurring.
- Contaminated waste materials are disposed of in closed receptacles. Waste material contaminated with a solvent, oil, grease, paint or other flammable substance shall be placed in covered metal containers before disposal and shall not be stored in work areas.
- Matches or cigarette lighters should not be taken into any area where an explosive atmosphere may be present.

Safe Storage of Flammable and Combustible Substances

- Flammable and combustible substances must be stored in approved containers.
- Flammable and combustible chemicals must be stored in fire resistant cabinets or a designated storage room or building.
- Flammable liquids must be stored in a flammable storage cabinet with adequate ventilation.
- Quantities of flammable substances are stored only in containers approved to CSA Standard B376-M1980 (R2008), Portable Containers for Gasoline and Other Petroleum Fuels (or most current version).

Fire Potential and Response Procedures

All leaks of flammable liquids will be reported immediately and repaired if practicable. If immediate repair is not possible, all spark-producing operations within the vicinity of the leak or spill will be stopped and adequate warning signs or barricade tape will be posted until the hazard is controlled or eliminated.

If a worker's clothing is contaminated with a flammable or combustible liquid, the worker must avoid any activity where a spark or open flame may be created or exists, remove the clothing at the earliest possible time and ensure that the clothing is decontaminated before it is used again. If a worker's skin is

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contaminated with a flammable or combustible liquid, the worker must wash the skin at the earliest possible time.

All fires at a Chinook Consulting Services worksite shall be reported to supervisory personnel immediately. A written incident report will be filed by the immediate supervisor in charge of that area once the fire has been addressed.

Vehicle & Combustion Engine Related

No worker shall undertake any servicing or maintenance of a vehicle while a flammable liquid or gas or an explosive substance is loaded into or unloaded from the vehicle or is present in the vehicle in any place other than the fuel tank.

Any driver who operates a vehicle that contains a flammable liquid or gas or an explosive substance shall ensure that the engine of the vehicle is shut off during the connection or disconnection of the lines for the loading or unloading of the flammable liquid, gas or explosive substance.

All internal combustion engines in a hazardous location shall have combustion air intakes and exhaust discharges that are equipped with a flame arresting device or they will be located outside the hazardous location. Whenever possible, internal combustion engines should be located outside the hazardous location.

Procedures for Handling and Storage of Cylinders & Gases

Each facility will follow local regulatory requirements regarding storage and use of compressed and liquefied gas.

All compressed gas cylinders will be stored in their appropriately marked secured (chained) locations and capped when not in use. If in use, all hook-up hoses and equipment used for hot-work purposes will be inspected prior to use. Defective equipment found shall not be used, but instead, tagged out of service or repaired before being used again.

Chinook Consulting Services must develop and implement site specific written procedures for the safe installation, use and maintenance of a compressed and liquefied gas system and make readily available for reference by workers the procedures developed before requiring or permitting the use of the system. All effected staff will be trained in and how to implement the compressed and liquefied gas procedures.

Absolutely no oil, grease or other contaminant contacts a cylinder, valve, regulator or any other fitting of an oxygenizing apparatus, an oxygen distribution or generating system.

Oxygen is never to be used as a substitute for compressed air in pneumatic tools, to create pressure, for ventilating purposes or to blow out a pipeline.

All regulators and its flexible connecting hose are to be tested immediately after connections to a gas cylinder to ensure that there is no leak of the gas supply. If a leak of the gas supply develops during gas welding or an allied process, the supply of gas is immediately shut off by the worker performing the welding or allied process and the work is not resumed until the lead is repaired.

All storage cylinders for compressed gas shall be secured in an upright position.

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The control valve of a storage cylinder for compressed gas, other than a cylinder connected to a regulator, supply line or hose, shall be covered by a protective cap that is secured in its proper position.

A spent storage cylinder shall not be stored inside a building.

No storage cylinder for propane shall be placed closer than three metres to a source of ignition or fire.

Fire Extinguishers

A Class B (or ABC) fire extinguisher must be readily available when working with or near flammable and combustible liquids.

Fire extinguishers that have been partially or completely used will be removed from service and replaced by similar equipment that has been inspected and authorized for service.

Every fire extinguisher shall be inspected for defects or deterioration at least once a month by a competent worker who shall record the date of the inspection on the tag attached to it. All portable fire extinguishers shall also be checked annually by a competent fire extinguisher supplier.

Every worker who may be required to use fire extinguishing equipment shall be trained in its use.

All fire extinguishers shall be maintained as follows:

- Fully charged and in operable condition
- Clean and free of defects
- Readily accessible at all times

Use

In the event of a fire, one trained employee will get the nearest fire extinguisher and use it to attempt to put the fire out. All other employees in the immediate area will prepare to evacuate if needed. All other employees in the building need to be advised that a fire is in progress.

The employee attempting to extinguish the fire will break the safety seal on the handle and pull the pin. He will then aim his extinguisher at the base of the fire and discharge it with a sweeping motion from side to side; continuing until the fire is out or the extinguisher is emptied.

Remember that a standard fire extinguisher will be emptied in about 10 to 15 seconds. If the fire is not out when the extinguisher has been completely discharged, the employees must evacuate the area.

Flammable Liquids and Substances

Flammable liquids such as various fuels or solvents will be transported in appropriately marked safety cans with their contents identified.

The use of gasoline as a cleaning agent on Chinook Consulting Services property is strictly forbidden. Only low flash point liquids are permissible for use in cleaning parts and machinery. Also no employee shall use gasoline to start a fire or use gasoline or replenish a tank on a heating device with a flammable or combustible liquid while the device is in operation or is hot enough to ignite the liquid.

Hot Work

Chinook Consulting Services must develop and implement site specific safe work procedures for fire and explosive hazards in the workplace, including hot work if hot work is performed in the workplace

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additionally, where a flammable substance is or is intended to be handled, used, stored, produced or disposed of at any Chinook Consulting Services location the Safety Manager shall develop written procedures to ensure the health and safety of workers who handle, use, store, produce or dispose of a flammable substance that may spontaneously ignite or ignite when in combination with any other substance or perform hot work where there is a risk of fire.

Our site specific procedures are to ensure that hot work is not begun until a hot work permit is issued which must include the nature of the hazard, the type and frequency of atmospheric testing required, the safe work procedures and precautionary measures to be taken, and the protective equipment required.

Chinook Consulting Services requires where a flammable substance is or may be present no hot work is to be permitted or performed until suitable tests have been conducted that indicate whether the atmosphere contains a flammable substance in a quantity sufficient to create an explosive atmosphere or risk of fire.

Chinook Consulting Services will confirm that the work may be safely be performed through suitable work steps, tests taken at intervals appropriate to the work being performed and record the results and procedures developed and implemented to ensure continuous safe performance of the work.

Any container or piping that contains or has contained a flammable substance shall be purged using an effective method to remove the flammable substance from the container or piping before any hot work is begun on that container or piping.

Chinook Consulting Services does not require nor permit any welding or cutting of metal that has been cleaned with a flammable or combustible liquid until the metal has thoroughly dried.

No hot tapping will occur until the Safety Manager develops a hot tap plan specific to the type or class of hot tap work being performed. There will be no exceptions to this requirement.

Welding Restrictions

Where gas burning or welding equipment is in use, Chinook Consulting Services shall ensure that approved flashback devices are installed on both hoses at the regulator end and acetylene and liquefied gas containers are used and stored in an upright position.

All welding will comply with the requirements of CSA Standard W117.2-06, "Safety in Welding, Cutting and Allied Processes."

All welding or allied process equipment is erected, installed, assembled, started, operated, used, handled, stored, stopped, inspected, serviced, tested, cleaned, adjusted, carried, maintained, repaired and dismantled in accordance with the manufacturer's specifications. Additionally, the area surrounding the operation is inspected and all combustible, flammable or explosive material, dust, gas or vapour is removed or alternate methods of rendering the area safe are implemented.

If a welding or allied process if performed above an area where a worker may be present the supervisor shall ensure that adequate means are taken to protect a worker below the operation from sparks debris and other falling hazards.

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An operator of an electric welding machine must not leave the machine unattended without removing the electrode. All appropriate welding and ground leads are used to fasten the electric supply cable securely.

Training

Workers are trained in safe handling of flammable and combustible substances. Employees that handle or work around flammable or combustible substances must be trained in the safe handling, use, storage and disposal of the substance. They must be provided with adequate information concerning the identity, nature, and potential hazards of the substance.

Retraining

Retraining shall re-establish employee proficiency and introduce new or revised control methods and procedures, as necessary. Retraining shall be provided for all authorized and affected employees whenever there is:

- An annual basis or
- A change in job assignment or
- Chinook Consulting Services has reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of fire extinguishers or fire prevention procedures.

Training Documentation

- All training will be documented and each employee's understanding will be subject to a "hands-on" test.
- Documentation will consist of, as a minimum, the employee's name, the trainer's name, the date of the training, and an outline of training provided.
- All training records will be maintained in the employee’s safety file.

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FIT FOR DUTY

Purpose

Chinook Consulting Services full and part-time staff are expected to report for work fit for duty, which means able to perform their job duties in a safe, appropriate and an effective manner free from the adverse effects of physical, mental, or emotional problems in Canada.

Scope

This program applies to all Chinook Consulting Services projects and operations.

Requirements

It is the goal of Chinook Consulting Services to provide a safe workplace for all workers. To accomplish this goal we have adopted the following fitness for duty policy requirements.

Competency

Workers are competent/qualified to perform their job. Chinook Consulting Services must ensure that workers have the necessary education, experience and training to perform their job tasks.

Physically Capable

Workers must be physically capable to perform their job. Workers must be physically capable of performing their job tasks.

A Physical Demands Analysis (PDA) should be prepared for each job duty to ensure workers are placed accordingly.

PDAs will be arranged through the Safety Manager.

Medication Reporting Requirements

Workers must notify their supervisor if they are taking prescription or over-the-counter medication that may impair their ability to work safely. Employees must report all medications they are taking.

Over-the-counter medications such as allergy or cold and flu medications could also impair one's ability to perform safely and must also be reported to their supervisor.

Employee Activity and Behavior

Chinook Consulting Services is responsible for monitoring workers for unsafe behaviors and removing workers from the job site, if necessary. Employee's activities and behaviors will be monitored to determine if employee(s) should be removed from the work site.

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Workers are prohibited from entering the workplace while under the influence of drugs or alcohol. Chinook Consulting Services must ensure that no person enters or remains at the job site while under the influence or drugs and/or alcohol.

Employee Assistance

Chinook Consulting Services will provide assistance to workers who are unable to safely perform their job duties. If an employee is determined to be unfit for duty, Chinook Consulting Services should have a process in place to provide reasonable assistance to the employee. This may include, but is not limited to, transferring the worker to another role, providing a leave of absence, Employee Assistance Programs, etc.

Chinook Consulting Services will review each matter on a case by case basis.

Disciplinary action may occur for an employee reporting to work in a condition which could endanger their safety or the safety of any other person(s).

Training

The Fit for Duty policies and procedures for Chinook Consulting Services are communicated to employees. Chinook Consulting Services must ensure that workers are trained on the Fit for Duty policies and procedures for Chinook Consulting Services.

Safe work practices and procedures must be followed. Safe work procedures must be in place prior to work beginning.

Employees shall follow our and our client's safety requirements. Examples may include, hot work permitting, confined space, lockout tagout, process safety management, electrical safety, operator safety and other standard work practices, safety rules or procedures.

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JOB COMPETENCY

Purpose

The purpose of this program is to establish general job competency requirements.

Scope

This procedure applies to all Chinook Consulting Services operations.

Responsibilities

Chinook Consulting Services Safety Manager

- Identifies, updates and monitors minimum qualification requirements, job titles and training documentation.
- Supplies training reports to clients and Chinook Consulting Services management.

Site Manager and Supervisors

- Shall ensure all employees assigned to their project meet job competency requirements and complete training identified in the training matrix.
- Shall ensure that any work that may endanger an employee must be completed by an employee who is competent to do the work.
- Shall ensure all employees have sufficient experience to safely perform work without supervision or with only a minimal degree of supervision.

Employees

- Attend and follow requirements of safety and health management training.

General

Competence is a combination of knowledge, understanding and skill, and the appropriate level of competence cannot be acquired simply by attending a training session. The understanding and skill are acquired by experience. For individuals involved in exposure to HSE hazards and risks experience and training are essential. The following components are to be considered for each worksite's delivery team for competency assurance:

Experience, Level of Knowledge and Capability to Perform

At Chinook Consulting Services our view of competency assurance involves the continuous assessment of training and development needs against a person's responsibilities, abilities and critical activities. This process enables the continuous improvement loop that feeds back into training and development activities that ensure competency assurance is an ongoing career cycle process.

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- Job Description Identified → Candidate Selection and Hiring Process (Reference and Background Check, Drug Screen, Physical Assessment) → Person Assessed and Hired for Open Position
- Experience, Qualifications Assessed for Initial Training ↔ Initial Induction Training Completion
- Further Training Required? If no → Ready for Work → On the Job Training → Competency Continually Assessed
- Annual Performance Appraisal → Ready to Promote? → Employee Promoted → Further Training Required?

Competency is verified before employees are permitted to perform tasks independently. A competent person (supervisor, lead hand, instructor, etc.) must verify that an employee is competent to perform their roles and responsibilities before being allowed to work independently. If there is a site Short Service Employee (SSE) program established the new or transferred employee will fall under the SSE requirements as well.

Identification of Documentation

Documentation is obtained from employees to demonstrate they meet the qualifications of their job. Based on the job description requirements documentation may include educational, certifications, licenses, prior acceptable training course completion, etc. Documentation is reviewed and confirmed as actual during the employee hiring process.

Identification of Positions

An organizational chart and list of job titles has been established by Chinook Consulting Services. Based on the positions and their exposure to risk their required training is entered into each worksite's training matrix. Job descriptions are prepared for each job title.

Identification of Qualifications

Minimum qualification requirements for each job title have been established by Chinook Consulting Services. Qualifications may include a combination of education, certifications and work experience. Safety training completion for the indicated job title is required before full qualifications are met to allow an employee to begin work.

Identification of Training and Competency Needs

Employees (new or transferred) are provided job specific training related to their roles and responsibilities and trained on the tasks they perform on a regular basis. Training is identified in our training matrix which specifies safety and health training needs by job title. Our training matrix is updated based on changing risks.

Training Records

All training records are maintained on site either by the Chinook Consulting Services Safety Manager or senior representative of management or their designee.

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Delivery of Induction, Transfer & Refresher Training

Employees receive initial induction training. No work by any employee is allowed to begin until the orientation is completed.

Training requirements are tracked by the Chinook Consulting Services Safety Manager and formal training sessions are conducted either on or off site by the Safety Manager or competent/qualified instructor for the required subject matter.

Supervisor Safety Management Training

Supervisors and managers receive annual, documented safety management system training.

Chinook Consulting Services Training Matrix

Additional training for identified hazards must be completed prior to employee exposure based upon a hazard assessment. Sample shown as each site must develop its own training matrix.	Location	Frequency	Admin	Management	Craft
Bloodborne Pathogens	All	A	PRN	X	X
Confined Spaces	All	I		X	X
Defensive Driver Awareness | Driving Safety	All	I	X	X	X
Electrical Safety - Unqualified	All	I		X	X
Emergency Response Plan	All	I	X	X	X
Fall Protection	All	I		X	X
Fire Extinguishers	All	A	X	X	X
First Aid/CPR	PRN	2	PRN	PRN	PRN
H2S	All	I		X	X
Hand and Power Tools	All	I		X	X
HAZCOM	All	I	X	X	X
Hearing Conservation	All	A	X	X	X
Isolation of Energy | LOTO	All	I		X	X
JHA	All	I	X	X	X
Ladder Safety	All	I		X	X
Personal Protective Equipment	All	I		X	X
Rigging Awareness	All	I		X	X
Scaffolding	All	I		X	X
Site Specific HSE Plan	All	I	X	X	X
Supervisor Safety Training	All	PRN	PRN	X	PRN

PRN = As Required Frequency: I = Initial A = Annual 2 = 2 Years 3 = 3 years

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Training Documentation

All training must be documented with: date; employee name, employee signature; instructor name; instructor signature and title of course.

Each new employee shall receive an orientation prior to beginning any work.

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JOURNEY MANAGEMENT

Purpose

This program is written to reduce incidents involving vehicle operations and to require planning of trips by all employees operating owned, leased or borrowed vehicles in Canada.

Key Responsibilities

Chinook Consulting Services Safety Manager

- The designated Safety Manager is responsible for developing and maintaining the journey management program and related procedures.

Site Manager

- Responsible for the implementation and maintenance of the journey management program for their site and ensuring all assets are made available for compliance with the program.

Employees

- All shall be familiar with this program and the local workplace vehicle safety program.
- Another individual is aware of the driver's trip itinerary. Employees should notify their supervisor or another individual who is not traveling with them of their travel plans. This includes where they are going, when they should be getting there and when they plan to return.
- Drivers must carry a reliable method of communication (cell phones, CB radio, etc.) in case of emergency. Drivers should always carry a cell phone, especially when traveling in rural areas. Consider subscribing to an in-vehicle communication/ remote diagnostic service (e.g. On-Star) if the vehicle is equipped with one.
- Follow all requirements, report unsafe conditions, and follow all posted requirements.

Journey Management Plan

The Journey Management Plan is reviewed with affected employees. The Journey Management Plan should be reviewed with road travelers before they perform any driving on company business. A copy of the plan must be readily available at the workplace. Road travelers should carry a copy of the plan.

Driving directions shall be obtained before traveling to an unfamiliar destination. Before taking a trip to an unfamiliar location each employee will ensure they have printed driving directions available. Do not plan to read directions from a Smartphone while driving. A GPS device may be used, but printed directions should be kept as a back-up.

Potential journeys involving driving and/or road transport should be screened and assessed relative to hazards, risks and costs with the following type of questions:

- Road travel should be limited whenever practicable. Road journeys should only be taken when necessary. Try to complete multiple tasks in single trips to reduce the amount of driving for

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improved safety and efficiency. If the trip is being taken to meet with someone, determine if the meeting can be done over the phone instead.

- Consider safer methods of travel (air, train, etc) where practicable.
- Can the business requirement for a potential journey be delayed and possibly combined with a later trip?
- Driving during adverse weather conditions should be avoided, whenever practicable. Before leaving on a trip, ensure that weather conditions are safe for driving. Ensure the vehicle being used is adequate for the weather conditions. Make sure emergency supplies are in the vehicle, and the driver has a cell phone in case of emergency. In particularly harsh conditions, consider cancelling or rescheduling the trip.
- Can the journey be combined with other people to share a vehicle?
- Road travel is completed during daylight hours, whenever practicable. Driving should be done during daylight hours rather than after dark whenever possible. Reduce speed when driving at night. Be aware of the potential for wildlife to be on the road, especially when driving at dusk or dawn.
- Is a fit-for-purpose vehicle for the expected route and conditions available (for example, a four-wheel drive vehicle, etc.)?
- Rest breaks should be taken to reduce fatigue. When driving long distances sufficient breaks should be taken to prevent fatigue. When driving alone and having trouble staying awake, pull off the road and get out of the vehicle for fresh air, or take a power nap. If driving late at night, consider getting a hotel room and starting fresh the next day. If two licensed drivers are in the vehicle, take turns driving. Get plenty of rest before beginning your journey.

Vehicle Operations Requirements

- Operators of Chinook Consulting Services or client on or off road vehicles shall be qualified by possession of a valid, current driver's license for the type of vehicle being driven.
- Only authorized employees will drive a motor vehicle in the course and scope of work or operate a company owned vehicle.
- No passengers shall be on trucks used to deliver goods.
- Backing is prohibited whenever practicable. Where backing is required, drivers, when parking, should make every effort to park the vehicle in a manner that allows the first move when leaving the parking space to be forward.
- Drivers must have either a reversing alarm, use a spotter or walk around the truck/trailer prior to backing.
- Passenger compartments are to be free from loose objects that might endanger passengers in the event of an incident. Any vehicle with non-segregated storage shall be equipped with a cargo net or equivalent to separate the storage area.
- Signs, stickers or labels are to be fitted in such a manner that they do not obstruct the driver's vision or impede the driver's use of any controls.

Employees driving vehicles are required to follow safe driving practices:

- Obey all federal and local driving laws or regulations as well as requirements of clients.

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- Immediately report any citation, warning, traffic violation, collision, vehicle damage or near miss associated with company or client vehicle operation or while driving on company duties to the supervisor.
- Immediately report any restriction or change to their driving privileges to the supervisor.
- Seat belts shall always be worn by all occupants whenever the vehicle is in motion; only seats fitted with three-point inertia-reel type seatbelts shall be used. All vehicles capable of more than 10 mph/15 kph shall have seat belts installed.
- Defensive drivers continually assess conditions and hazards and remain prepared for any challenge that may approach them.
- When speaking with a passenger, always keep your eyes on the road.
- Both hands on the wheel.
- No use of cell phones, radios or other electronic devices while driving any vehicle - vehicle must be safely parked prior to using a mobile phone or 2-way radio.
- Slow down around construction, large vehicles, wildlife, fog, rain, snow, or anything else that adds a hazard to your driving.
- Drive for conditions, not just the speed limit.
- Alcohol or illegal drugs are not allowed to be in a company, client or leased vehicle at any time.
- Drivers shall not operate a motor vehicle while under the influence of alcohol, illegal drugs, or prescription or over-the counter medications that might impair their driving skills.

Drivers are to be prepared before leaving:

- Perform 360 walk around – report new damage.
- Check windshield for cracks that could interfere with vision.
- Inspect for vehicle damage and immediately report any damage to the supervisor if not previously observed,
- Make sure dirt or snow is removed from lights on all sides of the vehicle.
- Brush or clean off snow or ice on all windows to ensure complete vision.
- Check fuel level to be certain the destination can be reached.
- Check to ensure the license plates and inspection tag on vehicle are current.
- Ensure that there is a first aid kit and inspected fire extinguisher in the company vehicle.
- Ensure the driver is rested and alert for driving.
- Employees are not to perform repairs or maintenance other than routine fluid additions.

Vehicle Requirements

All vehicles shall be fit for the purpose, and shall be maintained in safe working order.

- Tire type and pattern is to be recommended by the vehicle or tire manufacturer for use on the vehicle in the area of operation.
- Vehicles are to be fitted with a spare wheel and changing equipment to safely change a wheel, or a suitable alternative.
- Loads shall be secure and shall not exceed the manufacturer’s specifications and legal limits for the vehicle.

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- Vehicles are equipped with roadside emergency kits. Roadside emergency kits should be kept in all vehicles used for highway travel. These kits shall include equipment to assist in a roadside emergency such as water, booster cables, first aid supplies, warning triangles, flashlights, etc. If there is a potential for snow and ice, carry sandbags and a shovel.
- All vehicles are to be equipped with a multipurpose fire extinguisher with a capacity of at least 0.9 kg/2 lb. The fire extinguisher shall be securely mounted on a bracket and located so that it is easily accessible in an emergency without becoming a hazard in case of an incident.
- All drivers of light vehicles shall carry a high visibility jacket for use in case of emergency stops.
- All light duty vehicles carry a minimum of one collapsible hazard warning triangle.

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ACKNOWLEDGEMENT FORM

- ☐ Company Policy
- ☐ HSE - Responsibilities
- ☐ First Aid
- ☐ Slip, Trip, And Fall Prevention Guide
- ☐ Rig Site – Safety Awareness
- ☐ Hydrogen Sulfide Emergency Response Plan
- ☐ Risk Assessment and Hazard Identification
- ☐ Workplace Violence
- ☐ Working Alone Safely
- ☐ Emergency Preparedness and Procedures
- ☐ Ergonomics
- ☐ Drug and Alcohol Policy - Best Practices
- ☐ Personal Protective and Safety Equipment
- ☐ Storing and Handling
- ☐ Thermal Exposure
- ☐ Work Area Requirements
- ☐ Workplace Conduct
- ☐ Respiratory Protection
- ☐ WHMIS
- ☐ Subcontractor Management Plan (SMP)
- ☐ Environment Protection
- ☐ Short-Service Employee (SSE) Program
- ☐ Fatigue Management Program
- ☐ Incident Investigation and Reporting Best Practices
- ☐ Management of Change
- ☐ Vehicle Safety Policy
- ☐ Flammable and Combustible Substances
- ☐ Fit for Duty
- ☐ Job Competency
- ☐ Journey Management
- ☐ Health and Safety Responsibility under Legislation

	Inductee	Supervisor
Name		
Function		
Date		
Signed		

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APPENDIX – FORMS

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Form 1 – Hazard Report Form

Complete this form when you have identified a new hazard that is not identified in the safety manual. This hazard may need procedures developed to limit the dangers associated with it.

Any hazard that needs two or more engineering controls, to make the job safe, needs hazard procedures.

DATE: .....

LOCATION: .....

EQUIPMENT: .....

HAZARD: .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

SIGNATURE: .....

CORRECTIVE ACTION TAKEN: .....

BY WHOM: .....

DATE COMPLETED: .....

BENEFITS: .....

COSTS: .....

ACKNOWLEDGED

Company Representative: .....

Chinook Consulting Services Representative: .....

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Form 2 – Worksite Safety Inspection Form

Complete this form on a daily basis or when ever work site changes occur. If further controls or procedures are required, develop them using Job Hazard Analysis. All critical procedures will be developed with the aid of the safety department.

Inspection location..... Date of Inspection: .....

Prime Contractor: ..... Time of: Inspection: .....

Item	Hazard	Check	Priority*	Control Measures
1	H2S Critical Well			
2	Heavy equipment on location			
3	Water truck on location			
4	Lease condition, e.g. muddy, dry, snowy			
5	Logging truck on location			
6	Coring company on location. Hazards			
7	Fracing company on location			
8	Flair stack on location. Hazards			
9	Immediate well control issues			
10				
11				
12				
13				
14				

*Priority = 1 for greatest, 5 for least

Copies to: ..... Inspected by:.....

....

....

Consultant's Signature: .....

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Form 3 – On-Site Inspection

Contractor: ..... Date: .....

Location: .....

Agenda:

- Review company safety standards
- Review contact information
- Current Safety Topic
- Employee Input
- Date/Time of next meeting

Contact information

Contractor's name: .....

Contractor's address: .....

Contractor's email: .....

Current Safety Topic: .....

.....

.....

.....

.....

Contractors Input: .....

.....

.....

.....

.....

Action(s) to be taken: .....

.....

.....

.....

.....

Next meeting:

Date: ..... Time: .....

Supervisor Signature .....

Reviewed by: .....

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Form 4 – Incident and Accident Report

Name:.....

Date and time of incident or accident:.....

Location of incident or accident:.....

Reported by:.....

Reported to:.....

Injuries or Illness:.....

Name:.....

Occupation:.....

Body Parts:.....

Affected:.....

Nature of Injury/Illness:.....

Object/Equipment/Substance Inflicting Injury/Illness:.....

Person(s) in Control of Above Item(s):.....

Property/Equipment Damage:.....

Item(s) Damaged:.....

Nature of Damage:.....

Estimated Cost:.....

Actual Cost:.....

Object/Equipment/Substance:.....

Inflicting Damage:.....

Person(s) in Control of Above:.....

Item(s):.....

Description of activities immediately prior to at the accident:.....

.....

.....

.....

Description of Incident or Accident (include individuals involved):.....

.....

.....

.....

.....

.....

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Diagram:

North

Describe anything that contributed to the incident or accident and what were their root causes?

(See Incidents and Accidents Reporting)

CONTRIBUTING FACTOR	ROOT CAUSE OF CONTRIBUTING FACTOR

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Form 5 – Jobsite Hazard Assessment Form

Chinook	Jobsite Hazard Assessment	JHA
LOCATION:		DATE:
DESCRIPTION OF TASK/JOB:		
WEATHER CONDITIONS:	APPROX. TEMP.:	Describe confined space below if applicable:
NAME:	(print clearly)	

Type of Permit	Confined Space	Hot	Cold

GAS levels at start of job		Tested:
❑ H_2S	❑ O_2	❑ Yes
❑ SWEET GAS	❑ CO_2	❑ No

Lockout Tag Out	Yes	No
Has lockout tag out been performed	❑	❑

Daily Tasks

❑ Driving	❑ Sampling	❑ Pumping
❑ Office Duties	❑ Conduct Inspections	❑ Rig In
❑ Direct traffic	❑ Load Trucks	❑ Maintenance
❑ Check Core Samples	❑ Check Drilling Samples	
❑ Housekeeping	❑Collect Samples	❑ Snow Removal

HIGH ANGLE CONTROL

❑ 5 POINT HARNESS C/W LANYARD
❑ OTHER --

Yes/No	Bump Test
❑ ❑	Has gas detection equipment been bump tested?
❑ ❑	Has gas levels been recorded?

Yes	No	HAZARDOUS CONDITIONS
❑	❑	..... Uneven footing, Icy, Muddy road
❑	❑	..... Flying debris (broken sling)(angle grinder)
❑	❑	..... Pinch points Crush points
❑	❑	..... Hot surfaces – engines, manifolds,
❑	❑	..... Chemical Exposure
❑	❑	..... Moving equipment
❑	❑	..... Dust, mists or vapors
❑	❑	..... Lifting heavy object
❑	❑	..... Explosive/flammable chemicals

Yes	No	EMERGENCY PROTECTION
❑	❑	Emergency response plan in-place *(posted)*
❑	❑	Emergency phone numbers available *(posted)*
❑	❑	..... Emergency response equipment available
❑	❑	Hot work warning signs or confined space warning signs

Yes	No	TRAVELLING HAZARDS
❑	❑	..... Icy/Muddy roads
❑	❑	..... Off road travel
❑	❑	..... Wildlife
❑	❑	..... Distracted Driver Policy UNDERSTOOD?
❑	❑	..... Other

Working alone procedures in-place

Working Alone Procedures Understood? ❑ Yes ❑ No

Controls required for identified hazards: (*please check boxes applicable for controls implemented*)

❑ Proper clothing for weather conditions ❑ Good communications ❑ spotter ❑ Hearing protection ❑ Proper clothes ❑ PPE (fire retardant coveralls, hard hat, gloves, safety eyewear/face shield, and steel toed footwear) ❑ Fire protection equipment

❑Good driving habits ❑ Tag line ❑ Fire protection discussed ❑ Face Shield ❑Proper hand placement
❑ Guards ❑ Lighting ❑ First Aid Kit(s) ❑ Walk Around ❑ Area clear of combustible materials

❑ Link Registered - # _____
LINK #4567 (cell) or 1-888-888-4567(Landline)

Management Sign Off: _____

NOTE All unsafe conditions must be corrected prior to work beginning. If any hazardous conditions are observed, the work area must be immediately evacuated and no one is allowed to re-enter until corrective action has been taken.

	Yes	No
Golden Triangle of Fire Understood?	❑	❑
Ground Disturbance Understood?	❑	❑
H2S Policies and Procedures Understood?	❑	❑

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Form 6 – HRA Form

Complete this form when you have identified a new hazard that is not identified in the safety manual. This Risk Assessment may need procedures developed to limit the dangers associated with the hazard.

Any hazard that needs two or more engineering controls, to make the job safe, needs hazard procedures.

DATE:.....

LOCATION:.....

TASK (OR STEP)	HAZARD OR IMPACT	INITIAL SCORE			RISK AND IMPACT CONTROLS (When appropriate, include the timings and methods to ensure controls are routinely evaluated for effectiveness.)	CONTROLLED SCORE		
		C	L	Risk		C	F	Risk

SIGNATURE:.....

ACKNOWLEDGED

Company Representative:.....

Chinook Consulting Services Representative:.....

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Form 7 – Emergency Contacts

CONTACT	TELEPHONE #
Local Emergency Services:	
Provincial/State or Municipal police	.....
Fire department	.....
Ambulance service	.....
Hospital	.....
Aviation service	.....
Oilfield containment and recovery unit	.....
Poison control	.....
Medivac or alternative services	.....
Company (Client) Contacts:	
Emergency number	.....
Safety coordinator	.....
Operations Geologist	.....
Area Geologist	.....
Federal and Provincial Government Contacts:	
Aircraft and marine distress contact	.....
CANUTEC (The Canadian Transport Emergency Centre)	.....
Electrical inspection branch	.....
Energy or resources department	.....
Environment department	.....
Forest fire centre	.....
Forestry department	.....
Occupational health and safety department	.....
Parks department	.....
Public safety services or provincial emergency program	.....
Transportation of dangerous goods contact	.....
Federal and Provincial Government Contacts:	
Wildlife department	.....
Worker's compensation board	.....
Other	
Power Company	.....
Railway Company	.....
Telephone Company	.....

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Form 8 – Policy/Regulation Violation

Offence:..... First:..... Second:..... Third:.....

Issued To:.....

Project:.....

Location:.....

Date of Violation:.....

Description of violation: (who/where/what/when):.....

.....

.....

Agreed remedy to above violation:.....

.....

.....

Date & Time to be in effect:.....

.....

Comments:.....

.....

.....

.....

Worker's Signature.....

Supervisor Signature.....

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Form 9 – Work Area Requirements Acknowledgement Form

I have read and understood the Chinook Consulting Services' Work Area Requirements which outlines and reviews company policies, safety procedures and worksite responsibilities pertaining to the work place conduit and safe housekeeping.

The orientation covered the following topics (check appropriate topics):

- ..... Arrangement of work areas and housekeeping.
- ..... Restricted entry and visibility.
- ..... Professional/Personal Appearance.
- ..... Chemicals.
- ..... Company Owned Vehicles.
- .
- .

I understand and accept my responsibilities as outlined in the Invert Drilling Fluid Exposure Procedure

....

Signature Position

....

Supervisor's Signature Position

....

Date of Orientation

.....

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Form 10 – Subcontractor Safety Pre-Qualification Form

GENERAL INFORMATION			
1. Subcontractor Information:			
Subcontractor Name:		Telephone Number:	
Street Address:		Fax Number:	
City:		Website Address:	
Province/State:		Postal Code/Zip:	
2. Officers			
President:			
Vice President:			
Treasurer:			
3. How many years has your organization been in business under your present firm name?			
4. Parent Subcontractor Name:			
City:	Province/State:	Postal Code/Zip:	
Subsidiaries:			
5. Under current management since (Date): (please enter date as mm/dd/yyyy)			
6. Contact for Insurance Information:			
Title:	Telephone:	Fax:	Email:
7. Insurance Carrier(s):			
Name	Type of Coverage	Telephone	
8. Worker's Compensation Account Status (Please enclose a copy of your workers compensation insurance certificate. Account Number: Industry Code:			
9. Contact for requesting bids:			
Title:	Telephone:	Fax:	Email:
10. Contractor Evaluation form completed by:			
Title:	Telephone:	Fax:	Email:

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Form 11 – Health, Safety And Environmental Performance

HEALTH, SAFETY AND ENVIRONMENTAL PERFORMANCE

Provide the following data for your Subcontractor using your record keeping forms from the past three (3) years. If the data is not available please reply with Not Available - N/A.

Safety Performance Definitions and Guidance

a. **Hours Worked** - Employee hours worked last three years. Please report actual scheduled total hours worked and total overtime hours worked. If actual hours worked are not available for certain individuals hours worked may be estimated. A default of 2000 hours per individual per year can be used as an estimate.

b. **Recordable Incidents** - Recordable cases are those that involve any work-related injury or illness, including death but excluding first-aid injuries.

c. **Lost Workday Cases** - A Lost Workday Case is a medical case that involves fatalities, days away from work cases or restricted work activity cases.

Days Away from Work Case - Where the employee is away from scheduled work day one day or more after the day of a work related injury or illness. The day of the incident does not count as lost workday. Stop count when total days away and restricted duty days reach 180 or employee leaves the Subcontractor.

Restricted Work Activity Case - Where the employee as result of work-related injury or illness:

- Assigned to another job on a temporary or permanent basis or
- Worked at their permanent job but less than a full day
- Could not perform routine functions associated with their permanent job
- The day of the incident is not counted as a Restricted Duty day. Stop count when total days away or restricted duty days reach 180 or if employee leaves the Subcontractor.

d. **Motor Vehicle Incident -** A motor vehicle is any mechanically or electrically powered devices (excluding one moved by human power), upon which or by which any person or property may be transported upon a land roadway. Motor Vehicle Incident includes any event involving a motor vehicle that is owned, leased or rented by the Subcontractor that results in death, injury or property damage unless the vehicle is properly parked.

Health and Safety Incidents	2009	2008	2007
a. Total Hours Worked			
b. Total Recordable Incidents # Fatalities # Medical Aids # Days Away from Work Cases # Restricted Work Activity Cases			
c. Total Recordable Incident Rate (TRIR) Total # Recordable Incidents x 200,000 Total # Hours worked			
d. Lost Workday Cases (LWC) # Fatalities # Days Away from Work Case # Restricted Work Activity Case			
e. Lost Workday Incident Rate (LWDR) Total # Lost Workday Incidents x 200,000 Total # Hours Worked			

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HEALTH, SAFETY AND ENVIRONMENTAL PERFORMANCE – (continued)			
Health and Safety Incidents - continued	2009	2008	2007
f. Motor Vehicle Incidents (MVI) # Motor Vehicles Incidents # Kilometers/Miles driven			
g. Motor Vehicle Incident Frequency Rate (MVIFR) Total # of Subcontractor Motor Vehicle Incidents x 1,000,000 Total # Kilometers/Miles driven			
Environmental Incidents	2009	2008	2007
Total # Spills to Water a. Petroleum Spills # spills Sheen (est. volume as 0.1 bbl. To < 1bbl. # spills 1 bbl. To < 100 bbl. # spills 100 bbl. or more b. Chemical Spills # spills 1 bbl./160 kg. to < 100 bbl./16,000 kg. # spills 100 bbl./16,000 or more			
Total # Spills to Land a. Petroleum spills # spills 1 bbl. To < 100 bbl. # spills 100 bbl. or more b. Chemical Spills # spills 1 bbl./160 kg. to < 50 bbl./8,000 kg # spills 50 bbl./8,000 kg. or more			
Enforcement Actions	2009	2008	2007
Citations # Health and Safety # Environmental Please provide details			
Fines Total # Fines Total $$ Paid Please provide details			

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Form 12 – Management Of Change Procedure Form

Purpose of Form: To verify the orderly and comprehensive review of any new operations, processes, construction, equipment, machinery, demolition, remodeling, etc. prior to the actual change taking place. We must make sure that changes to the way we perform work do not create safety nor environmental hazards and that we have considered how changes in one area of work will affect other areas.

Project Location:..... Requestor: .....

	YES	NO
Utility and Energy Requirements: routing and type of electrical, hydraulic, compressed air, steam, etc., piping pressures and sizes for liquid and gas supplies, all means for de-energizing utilities provided and identified, other.		
Hazardous Materials: names and descriptions, MSDSs, concentrations, size and type of packaging, flash point, flammable limits, storage requirements, temperatures, other.		
Waste Disposal: wastes generated, containers to be used and locations, amounts, drains used, flammability, toxicity, reactivity, ingredients, associated wastes such as gloves and rags, disposal locations such as compactor or strategic dumpster or hazardous waste drums, other.		
Personal Protective Equipment: types required other.		
Personnel: types of training required for hazard communication, waste disposal, PPE, confined space, moving vehicles, cranes, fire protection, lockout/tagout, new equipment, work shifts to be involved, use of temporary employees, qualifications of operators, testing of operators, other.		
Material Handling: lifting devices required, cranes required, weights to be handled mechanically and manually, forklift requirements, rack storage requirements, access to racks by forklifts, power requirements for lifting aids, other.		
Fire Protection: access to existing fire extinguishers and fire hoses, sprinklers protected and not obstructed, emergency response, other.		
Walking and Working Surfaces: access to aisles, aisles not used for working, aisles designated, clean and smooth surfaces, floor mats, trip hazards, other.		
Machinery and Equipment: point of operation guarding, power transmission guarding, nip points, sharp edges, foot treadles, energy sources, new equipment and tools,		

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	YES	NO
maintenance requirements, equipment bolted to the floor, energy isolating requirements (lockout/tagout), special tools required, automatic start or intermittent operations, other.		
Ergonomics: illumination, noise, worker position and posture, vibration, floor space, machine controls, repetition, force, tool use, heat and cold, emergency stop location, other.		
Ventilation: airborne contaminants (vapour, gas, dust, fume, mists, smoke, vehicle exhaust, etc.), control methods, amounts of emissions, local and general (dilution) ventilation, CFM, permits required, other.		
Radiation: ultra-violet radiation from arc welding, laser, light energy from cutting, plasma, microwave, radio frequency, other.		
If you answered 'Yes" to any of the issues above, explain the proposed changes below:		

Submitted by: ..... Date: .....

Review/Approval:

Supervisor: ..... Date: .....

Project Manager: ..... Date: .....

Safety Manager: ..... Date: .....

Client (If Needed): ..... Date: .....

Audits:

Project Manager: ..... Date: .....

Safety Manager: ..... Date: .....