GROUSE MOUNTAIN
ENVIRONMENTAL CONSULTANTS

SAFETY MANUAL

2022

Section 1: Employee Safety Rules

The purpose of these procedures is to identify the minimum safety requirements Grouse Mountain expects from its employees. The following procedures applies to all employees who work on/around Grouse Mountain equipment, at Grouse Mountain facilities or, at any Grouse Mountain job site. All individuals regardless of employment term, duration, or requirements are expected to follow protocols laid out in this manual. Each employee shall be responsible for complying with all company safety, health, and environmental procedures, and applicable federal, state, and local regulations.

Section 2: General Employee Conduct

Employees should:

- Not report to work if under the influence of alcohol or drugs. Do not bring alcoholic beverages or illegal drugs on the premises.
- Horseplay, practical jokes, etc. are prohibited.
- Walk; do not run, at any time in areas of the workplace where such actions may put you or others in harm's way
- Finger rings, bracelets, or other jewelry which can be caught in moving machinery or equipment should not be worn.
- Use only authorized walkways, roads, and access points. Keep out of areas which are barricaded or marked "restricted" or "dangerous."
- Always carry themselves in a professional manner, when on a Grouse Mountain location, in a company vehicle, or representing the company in any way, this not only includes safety actions, but all actions.

Articles of Operational Excellence

- Always follow safe work practices and procedures.
- Always operate in a safe and controlled condition.
- Always comply with all applicable rules and regulations.
- Always follow written policies and procedures for high-risk or unusual situations.
- Always operate within design or environmental limits.
- Always ensure safety devices are in place and functioning.
- Always address abnormal conditions.
- Always involve the right people in decisions that affect procedures and equipment.
- Always maintain integrity of dedicated systems.
- Always meet or exceed customer's and landowner requirements.

Smoking

Smoking shall only be allowed in designated smoking areas. Smoking is not allowed in any Grouse Mountain vehicle/equipment, or facility.

Signs

All employees shall be familiar with and comply with all signs posted throughout Grouse Mountain facilities and equipment. Upon entering a project location, it is the responsibility of the employee to locate and comprehend any site-specific safety requirements. Failure to do so could result in disciplinary action lined out in the Grouse Mountain Employee Handbook.

Drivers and Operators

All employees driving or operating any vehicle or equipment under Grouse Mountains possession should be physically and emotionally prepared to operate the vehicle / equipment. Employees will operate vehicles in full compliance with all applicable federal, state, and local regulations. Use of cellular telephones while operating company vehicles is restricted to phone calls only and use of a hands-free system should always be used when available.

Section 3: Procedures/Requirements

General

Select and utilize the proper tool for the job. Tools should be properly stored, maintained, repaired, and replaced as needed. All tools will be inspected before each use. Unsafe tools should be taken out of operation. Tools should never be left lying on moving equipment or vehicles. All hand and power tools will be used only for the intended purpose, and any safety features shall not be bypassed, removed and/or, tampered with in any way. When working at elevations, tools shall be secured or tethered to prevent dropping. Before using any tools, the area should be checked and deemed safe by ensuring there are no hazards overhead, footing is secure, there are no fumes or gasses, and PPE is adequate for the scope of work.

Employees using hand or power tools shall be properly trained prior to use of the tool. If no training has been received, only trained employees shall demonstrate and provide onsite training for proper use of each tool to be used to complete the job.

Housekeeping

Good housekeeping helps to make safe working conditions. Employees shall assist in keeping their work area clean. Pick up tools and other items from the work area at the end of each shift or workday to avoid safety hazards.

Employees will be instructed on the proper disposal method for wastes. This includes general instruction on disposal of non-hazardous wastes, trash, or scrap materials. If wastes generated are classified as hazardous, employees will be trained to ensure proper disposal.

Material Handling and Storage

Employees should always use safe manual lifting techniques. Do not stack material in aisles and authorized walkways. Access to emergency devices, such as fire extinguishers, stretchers, control valves or electrical switch boxes shall always be maintained.

Lockout/Tagout (LO/TO)

Lockout/tagout requirements may be encountered when working with Grouse Mountain clients or on specific locations. Only properly trained and qualified employees will be assigned to projects requiring LO/TO knowledge. All affected employees shall comply with federal or state requirements for lockout/tagout while working on powered equipment or when engaged in other work activities where the control of potentially hazardous energy is necessary to ensure personal safety. Grouse Mountain will provide training regarding proper LO/TO protocols.

Hot Work

All welding, cutting, and brazing shall be done in accordance with federal and state regulations. Only properly trained and qualified employees will be assigned to projects requiring hot work. Grouse Mountain will provide training regarding proper protocols around Hot Work locations.

Section 4: Training

Employees shall be appropriately trained to perform the assigned task. No employee shall operate equipment or perform any task until they have been trained. Employees will have obtained recommended specialized training; First Aid/CPR, Competent Person Training, Fire Extinguisher and additional specialized training as necessary prior to field work. In some instances, on-site training may be required, and can only be completed when performed by a supervising employee that has been trained previously and is cleared to carry out training protocols.

Training topics will include but are not limited to the items covered in this manual. The Safety Officer will determine topics as he/she sees fit and as is approved by Grouse Mountain Administration. Additional topics may be added to the training program as needed and required project specifications, near miss reports, hazard or job site analysis, changing safety regulations, and results of accident/injury and illness investigations.

Training Documentation

Grouse Mountain Administration will maintain documentation of training on file until training is complete. Training documentation will then be kept in the employee's folder for the duration of their employment. An appointed Safety Officer will be maintained, and a monthly safety meeting will be scheduled regularly. Safety meetings topics, attendees and any other pertinent information will be recorded and kept on record. Employees will be allowed to miss only three (3) consecutive safety meetings.

Supervisors ensure that employees working at Grouse Mountain facilities or in the field adhere to the requirements of this procedure.

Section 5: Personal Protective Equipment (PPE)

General Requirements

This section is provided for the use of all Grouse Mountain managers, supervisors, and personnel to ensure that the needed personal protective equipment is properly selected, fitted, maintained, provided, and used to protect Grouse Mountain employees.

This section applies to all Grouse Mountain workplaces where Grouse Mountain employees are exposed to safety and /or health hazards requiring the use of personal protective equipment to ensure their safety. Each Grouse Mountain supervisor is responsible for assessing the workplace hazards, determining the specific personal protective equipment requirements, selecting the necessary equipment, providing the needed equipment, ensuring that all of his or her assigned Grouse Mountain employees are properly trained concerning the purpose, use and limitations of the equipment provided, and routinely audit the workplace to ensure their assigned employees are using the prescribed personal protective equipment properly.

Basic controls for protecting Grouse Mountain Environmental Consultants personnel from hazards include engineering, education, and enforcement. Through effective engineering controls, most employee hazards can be eliminated. This should always be the first attempt at eliminating a hazard. However, in some cases, due to the nature of the work being performed, engineering controls cannot eliminate all hazards such as sawing, cutting, welding, handling chemicals, dusty condition, etc. Where engineering controls are not feasible to eliminate employee hazards, appropriate personal protective equipment must be provided and properly used by exposed Grouse Mountain employees. In such cases, the personal protective equipment is the "last line of defense" for safety. As such, any equipment failure or improper use may likely result in employee injury, illness, or death depending on the nature of the hazardous exposure.

Protective equipment, including PPE for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers must be provided, used, and maintained in a sanitary and reliable condition. Each employee is responsible for the care and condition of equipment that is issued to them. Supervisors must perform necessary checks to ensure that equipment is maintained as required and ensure that equipment that is damaged is promptly replaced. Supervisors shall not allow employees to conduct tasks without the proper PPE. Protective equipment must be provided wherever it is necessary by reason of hazards of operations or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact. Supervisors are responsible for ensuring that the appropriate PPE is provided in accordance with this policy.

Employee Owned Equipment

Where Grouse Mountain employees provide their own protective equipment, as authorized by their supervisors, the equipment must meet all applicable rules, procedures, standards, codes, and regulations specified in this section. Also, the proper maintenance and the proper sanitation of the equipment must be provided.

Clothing

Employees are expected to wear clothing that is suitable and required of the specific location and appropriate for the scope of work. This includes at a minimum; closed toed shoes/boots (unless steal toed boots are required), long pants, and a work condition appropriate shirt.

Head Protection

Hard hats are designed to provide protection from specific hazards. Hard hats must meet ANSI Z89.1.1-2003, Type I Class E or equivalent government or industry standard. All personnel including visitors must wear hard hats in all work areas. *Metal hard hats are prohibited.*

(Exceptions and conditions): Hard hats are not required to be worn in enclosed vehicles or equipment, or in offices, warehouses, shops, garages, or yards (if no overhead impact hazards are present). Work areas within Grouse Mountain properties shall be designated by a warning barrier with warning signs.

These guidelines concerning hard hats should be strictly followed:

- The hard hat must be worn so that it provides maximum impact protection.
- The hard hat must not be tipped forward, backward, or to either side and will not be worn backward.
- The headband (suspension system) must be adjusted to the proper size to provide enough clearance between the shell and the headband. The suspension system must never be modified or altered, and objects must never be carried or stored between the headband and head.
- Hairstyles that make it impossible for a person to properly wear a hard hat are not permitted.
- Never use gasoline, solvents, or similar products on a hard hat. Never paint or modify the shell of a hard hat eg, (punching/drilling holes in it for additional ventilation). Use only mild soap and warm water to clean a hard hat.
- Hard hats should be inspected monthly. The hat or headband must be replaced if cracks, breaks, brittleness, or discoloration are observed.

Exposure to direct sunlight may reduce the life of the shell. Follow manufacturers requirements for suspension and shell replacement.

Foot Protection

Steel toed boots in good condition, with pronounced heel, slip resistant and oil resistant soles that meet ANSI Z41.1 requirement shall be worn when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, or when the use of protective footwear will protect the affected employee from an electrical hazard, such as a static-discharge or electric shock hazard, that remains after the employer takes other necessary protective measures.

Eye and Face Protection

Eye protection shall be worn while performing work on jobsites or while at Grouse Mountain facilities where a hazard to your eyes exists. Minimum protective eyewear shall be safety glasses with side shields. Employees who wear prescription lenses while engaged in operations that involve eye hazards will wear eye protection that incorporates the prescription or will wear eye protection over the prescription lenses that do not disturb the proper position of the prescription lenses or the protective lenses. All eye and face protection shall meet ANSI Z87.1.

Hearing Protection

Hearing protection devices that meet the regulatory standards shall be worn in all posted high noise areas. Hearing protection is required in all known or suspected areas with noise levels of 85 dBA or greater.

Protective Clothing

Protective clothing shall be worn when handling hazardous materials or chemicals, when the applicable Safety Data Sheet (SDS) specifies such. Flame resistant clothing (FRC) will be worn to meet the standards of OSHA while working in the oil and gas field. Grouse Mountain will provide FRC when required. *The use of FR clothing greatly improves the chance of a worker surviving and regaining quality of life after a flash fire. FR clothing can significantly reduce both the extent and severity of burn injuries to the body.*

Hand Protection

Appropriate protective gloves shall be worn where there is risk of exposure to high temperatures, sharp edges, chemicals or any other conditions or materials which may cause injury to the hands, in accordance with OSHA standard 1910.138. Hand protection should be selected relative to the task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified.

Respiratory Protection Equipment

Respiratory protection is required in situations where employees of Grouse Mountain will be exposed to environments containing respiratory hazards such as harmful vapors or oxygen deficient environments. The completion of the Job Safety Analysis (JSA) will serve as the evaluation. The completed JSA will identify situations in which respiratory protection may be required, and potential respiratory hazards which may require the use of respiratory protection.

Personal respiratory protection equipment shall be selected, inspected, maintained and used in accordance with OSHA Standard 1910.134. A respirator shall be provided to each employee when such equipment is necessary. The employer shall provide the respirators which are applicable and suitable for the purpose intended.

Glasses that interfere with respirator seal or facial hair that comes between the sealing surface of the face piece and the face, or that interferes with valve function, is prohibited. National Institute for Occupational Safety and Health (NIOSH) certified respirators will be selected based on the hazards that the employee is exposed to.

During respirator use employees must leave the area to wash, change cartridges, or if they detect break-through or resistance. No employee of Grouse Mountain is authorized to work in any environment considered to be immediately dangerous to life or health. All medical evaluation, training, and testing for Grouse Mountain employees will be performed by an appropriately licensed outside service.

Employees will be trained in the knowledge of respirators, their fit, use, limitations, emergency situations, wearing, fit checks, maintenance & storage, medical signs & symptoms of effective use and general requirements of the OSHA standard. The training will be provided before the employees will be required to use a respirator. Employees will also be trained annually.

It is the employee responsibility to ensure all assigned respiratory equipment is properly stored, protected from damage, contamination, etc. For emergency use: stored accessible, and clearly marked. Inspections for routine equipment will be before use and during cleaning.

Upon donning the respirator, employees shall perform a positive and negative pressure fit check. If the user cannot establish a “tight fit”, he/she shall not use the respirator until a tight fit can be achieved.

First Aid Kits

First aid kits are found in each vehicle and in several locations around the Grouse Mountain Environmental Consultants office building. First aid kits are marked on all fire escape plans posted throughout the building. First aid kits shall consist of appropriate item which will be adequate for the environment in which they are used. Items will be stored in a weather resistant container with individually sealed packages of each type of item. Inventory of first aid kits and contents will be taken monthly. It is the employee’s responsibility to report any items that were used, and therefore need replenished, to administration.

Fire Extinguishers

Fire extinguishers are conspicuously located throughout Grouse Mountain office facilities. Locations of extinguishers in the buildings are denoted on the fire escape plans. Each vehicle, UTV, and drivable piece of equipment has a functioning fire extinguisher. All fire extinguishers will be inspected annually, and inspection tags will remain attached. All fire extinguishers will always be accessible and functional.

Section 6: Emergency Action Plan

The purpose of an Emergency Action Plan is to protect the employees from serious injury, property loss, or loss of life, in the event of an actual or potential major disaster. A major disaster may include but is not limited to any of the following: fire, explosion, tornado, earthquake, bomb threat, or hazardous chemical spill. In the event of a major disaster, this Emergency Action Plan describes the initial responsibilities and actions to be taken to protect all employees until the appropriate state, county, or municipal responders take over.

For the protection of employees, an Emergency Action Plan is a requirement of OSHA 1910.38. It is also necessary and prudent for the protection of our employees and visitors. It is a requirement that the employer review with each employee upon their initial assignment or when the plan changes, those parts of the plan that the employee must know to protect her/himself in the event of an emergency. In addition, the written plan shall be made available for employees to review and plan for their evacuation.

It is impossible to provide specific information for all situations. There is no guarantee implied by this Plan that a perfect response to disaster emergency incidents will be practical or possible. Therefore, this plan is a guide for employees to familiarize themselves with basic emergency planning, response and evaluation. Job site safety contacts will be made known to employees before they enter the job location, and a list will be kept in GMEC vehicles.

Pre-planning

Preparation will increase the margin of safety in an emergency. To evacuate successfully:

- Train employees in ways of assisting others.
- Inform employees how to communicate in an emergency.
- Assign specific tasks.
- Identify employees with specific needs.
- Provide a building specific plan. Evacuation routes must be communicated.
- Employees should know at least two evacuation routes.

The following is a list of items that each employee should be aware of:

- Emergency and accessible exits
- Evacuation routes
- Location of fire extinguishers
- Tornado shelter
- Areas first searched

Notification of Emergency Warning

In the event of a disaster, the warning may come from any of the following sources: commercial radio or television, NOAA radio, building smoke detection or emergency siren, web/internet, private citizen, or local law enforcement. It is recommended that several sources be monitored to assist in determining when emergency situations exist since no one system can cover all circumstances. A person receiving notification of a possible disaster or a building emergency should immediately sound the alarm to notify employees (e.g. Yell “Fire!”, call other offices, etc.). Inform immediate supervisor who will continue notification up the chain of command.

Emergency Alarms and Advisories

Homeland Security Advisory System (HSAS) is the national advisory system that provides a means of disseminating information regarding the risk of terrorist acts.

A. Low Condition – Green Low risk of terrorist attacks.

The following Protective Measures may be applied:

1. Refining and exercising preplanned Protective Measures.
2. Ensuring personnel receive training on HSAS, departmental, or agency-specific Protective Measures; and
3. Regularly assessing facilities for vulnerabilities and taking measures to reduce them.

B. Guarded Condition – Blue General risk of terrorist attack.

In addition to the previously outlined Protective Measures, the following may be applied:

1. Checking communications with designated emergency response or command locations.
2. Reviewing and updating emergency response procedures; and
3. Providing the public with necessary information.

C. Elevated Condition – Yellow Significant risk of terrorist attacks.

In addition to the previously outlined Protective Measures, the following may be applied:

1. Increasing surveillance of critical locations;
2. Coordinating emergency plans with nearby jurisdictions;
3. Assessing further refinement of Protective Measures within the context of the current threat information; and
4. Implementing, as appropriate, contingency and emergency response plans.

D. High Condition – Orange High risk of terrorist attacks

In addition to the previously outlined Protective Measures, the following may be applied:

1. Coordinating necessary security efforts with armed forces or law enforcement agencies;
2. Taking additional precaution at public events;
3. Preparing to work at an alternate site or with a dispersed workforce;
4. Restricting access to essential personnel only.

E. Severe Condition – Red Severe risk of terrorist attacks.

In addition to the previously outlined Protective Measures, the following may be applied:

1. Assigning emergency response personnel and pre-positioning specially trained teams;
2. Monitoring, redirecting or constraining transportation systems;
3. Closing public and government facilities; and
4. Increasing or redirecting personnel to address critical emergency needs.

Assignments and Responsibilities

Employees will report to a location designated as the Emergency Operations Center, unless the prevailing situation dictates otherwise. Communication will be by radio, public address system, telephone, or voice with the ranking member in charge.

Emergency Operations Team:

- Safety Supervisor
- Assigned members of the Management Team
- Assigned Supervisors
- Manager of Mechanical Maintenance
- Environmental Health & Safety Manager

Responsibilities of Safety Manager:

- Review plan annually, revise as necessary, and make copy available to building employees
- Plan training exercises to test evacuation plan
- Instruct personnel of their duties
- Determine method of monitoring for emergency situations
- Direct all initial emergency actions including the following:
    - Assign tasks to personnel to carry out specific actions
    - Order evacuation, if deemed necessary

- Take any other action necessary to protect life
- Provide status and other reports to the management or his/her designee
- Assess nature and extent of all emergencies.
- Assume initial control of all emergency actions until local emergency personnel arrive, then:
    - Obtain volunteers to carry out supporting actions.
    - Develop a system to assist persons in need.

When an alarm activates, the Safety Manager will quickly check rooms/area as they exit the building/jobsite and advise anyone they see of the need to evacuate. They will assist persons who need assistance. Once out of danger, they will advise Safety personnel and/or emergency responders of anyone remaining in the building/area or not accounted for and keep occupants from reentering building until advised by Safety or emergency personnel that reentry is allowed.

Evacuation Routes & Meeting Places

Evacuation routes will be clearly communicated for each job or work site. It will be the responsibility of the supervisor to inform employees of these evacuation routes, establish a procedure to account for employees, and establish a procedure for reporting to emergency personnel any missing, trapped or injured occupants.

Meeting places will be established to account for individuals for each job site. At each location a primary meeting place, inclement weather meeting place, and contingent meeting place, (if needed) will be identified.

Disabilities

In an emergency, each person has different skills and abilities. Any employee with a disability is responsible for informing her/his department administrator or immediate supervisor that she/he will require assistance during an evacuation. *It is important not to assume that persons with obvious disabilities need assistance, or to assume what type of assistance they may need.*

Assign a designated area for persons who may need assistance in evacuation, e.g. hearing, mobility, vision or speech impaired, the elderly and children. The area for rescue assistance will have direct access to an exit, where those who are unable to use stairs or who are unable to navigate the emergency route may remain. Examples are:

- Hallway adjacent to an exit.
- Vestibule located next to an exit.
- Stairway landing. Position the person so they do not obstruct the exit.

Department heads should discuss with individual employees who have obvious disabilities, those who have informed them of any special needs, and all newly hired, what assistance they may need and determine how they will communicate

Those who indicate they may need assistance should be listed on the addendum attached at the end of this Emergency Action Plan. The information it contains is confidential and will be made available only to the person’s immediate supervisor, the

Environmental Health & Safety Manager, and/or the Director of Safety. It is not to be posted as part of this Emergency Action Plan.

Employees are not expected to endanger their own lives to assist with the evacuation of an employee, or visitor. However, if an employee assists a person with a mobility impairment to a designated area or is informed of a mobility impaired person remaining in a designated area, she/he must immediately inform responding emergency personnel or building representatives of the location of the person. (If possible, leave a two-way radio with those in an area awaiting rescue assistance.)

Section 7: Responding to Emergencies

Each emergency requires a different response. In bomb threat, hazardous material spill or tornado emergencies, employees may be sheltered in place. At other times building evacuation is the appropriate action. The following are protocols to be used in each instance:

Fire/Ambulance

Telephone 911 to report an accident or life-threatening situation.

Fire Procedures: To evacuate the building upon seeing smoke/fire or hearing the fire alarm (other types of evacuation are covered elsewhere in this document):

A. Verbally warn employees in the immediate area, (such as, yelling “FIRE!”) upon discovery of smoke or fire. All employees are required to evacuate the building, unless otherwise assigned or authorized to remain by the emergency agency in charge.
B. Give your name, company name, full address and type of emergency.
C. Stay on the line until you have given all necessary information, if possible.
D. CLOSE THE DOORS AS YOU LEAVE, BUT DO NOT LOCK THEM.
E. When out, move away from building to a prearranged assembly area for a head count. You should be at least one and one half (1 ½) times the building’s height from the building. Leave walks and drives open for fire and emergency responders.
F. If necessary, for a safe, orderly evacuation, activate fire extinguishers or fire hose. At the discretion of the individual, use extinguisher if trained and assigned to do so.
G. Notify:

    (1) Fire fighters if you suspect someone may be trapped inside the building.

    (2) Immediate supervisor and proper agencies for any needed services.

Tornado or Severe Thunderstorm Procedures:

Listen for latest advisories on commercial radio or television.

- Tornado or Thunderstorm Watch: Weather conditions are favorable for the *possible* development of tornadoes or severe thunderstorms. Continue normal activities but have someone monitor the situation and notify others if conditions deteriorate.

- Tornado or Thunderstorm Warning: A tornado or thunderstorm is occurring or has been sighted in the area. In addition to dark clouds and/or hail the emergency siren may sound.

The Safety Manager will initiate a computer notification system and a telephone tree. Once informed, safety contacts will perform a final check in their area then proceed to the building tornado shelter. The warning siren is a steady wail. It sounds when there is a tornado in the area. If you hear the siren, check your floor to make sure that everyone has heard the siren. Then immediately move personnel to the designated safe assembly area, such as the lowest level of your building without windows. For example, a restroom, center stairwell, hallway or office. Close the door. The siren typically sounds for five minutes. Stay sheltered until the all-clear is given by the National Weather Service. Indicate area(s) where occupants will move to when not evacuating the building. If you are outside when you hear the siren, take cover in a building close by.

Primary tornado shelter location: Large kitchen/break room

Secondary tornado shelter location: GIS office

If necessary, initiate emergency shutdown procedures. After the tornado passes, restore calm and check for injuries. Report any injuries and damage to the appropriate personnel.

Blizzard

If indoors stay calm, remain indoors and await instructions from the designated official. If there is no heat, close off unneeded rooms stuff towels or rags in cracks under doors and cover windows at night. Eat and drink regularly, food provides energy and heat to the body and fluids prevent dehydration. If available wear layers of loose fitting, warm clothing.

If outdoors find a dry shelter and cover any exposed body parts. If possible, eat a drink regularly. Stay at your current location, or as near it as possible, so that emergency personnel can locate you. If possible, call to notify someone of your location and what you have available to you.

If stranded in a vehicle stay in the vehicle, run the motor about ten minutes each hour, open a window a small amount for fresh air, preferably a window not facing the wind.

Ensure the exhaust pipe is not blocked. Make yourself visible to rescuers. Move occasionally to keep blood circulating and to keep warm.

Earthquake

An earthquake usually occurs without any type of warning. Due to the suddenness, all personnel should attempt to get under a table or desk, or any place that the employee feels is safe. After an earthquake has stopped, stay calm and await instructions from the designated official. Keep away from overturned fixtures, windows, filing cabinets, and electrical power. Check for injuries and aid as needed. designate someone to check for fires and shut off utilities to control gas and water leaks. If major structural damage has occurred, completely evacuate the building if possible. The building should be inspected by proper authorities for damage before reentry. Management should then notify proper agencies, companies or departments as needed.

Flood

If outdoors move to higher ground, avoid walking or driving through flooded areas. If driving and the vehicle stalls, abandon the vehicle and get to higher ground.

If indoors be ready to evacuate as directed by the designated official. Time permitting, move any vital supplies to higher ground.

Medical Emergencies

Emergency Medical Service (EMS) personnel or those individuals who are trained by the American Red Cross or other recognized and documented training authority, will provide first aid. Until rescue personnel arrive, administer first aid in the building or, in the event of a complete evacuation, at a designated safe assembly area outside. Until EMS arrives, at least one person onsite will have a valid certificate for an approved course in First Aid/CPR.

Call 911 immediately and provide the following information:

A. Nature of medical emergency.

B. Location of the emergency (company and address).

C. Your name and phone number from which you are calling.

- Call 911 immediately.
- Do not move victim unless necessary.
- Call personnel trained in CPR/First Aid to aid prior to the arrival of the professional medical help.
- First Aid Kits are in all work vehicles, restrooms, and common areas. Locations of each kit is designated on the fire escape plan posted throughout the building.
- If personnel trained in First Aid are not available, at a minimum, attempt to stop any bleeding with firm pressure on the wound(s), use proper PPE to avoid contact with bodily fluids and blood if possible. Clear the air passages when needed using the Heimlich maneuver in case of choking.
- In case of assisting personnel exposed to hazardous materials, consult the SDS and wear the appropriate PPE. Attempt first aid ONLY if trained and qualified.

- When transportation to a hospital is necessary: If by ambulance, arrange to have the ambulance met at the nearest road to be led into the jobsite to eliminate the possibility of the crew missing the turnoff. If transporting by personal vehicle let the hospital or physician know the route that the injured is taking so that trained personnel can meet you and take over in route.

Procedure for Emergency Shutdown of Operations

An emergency shutdown of the building can be ordered by Safety, Management, local law enforcement, or local fire department. No employee should risk any type of injury, however, if time permits, an emergency shutdown of computers should be accomplished in the event of a severe electrical storm. Critical Operations will be shut down by assigned personnel.

Bomb or Biological, Nuclear, Incendiary, Chemical, Explosive Threat

Grouse Mountain's policy is to evaluate bomb threats in order to determine the appropriate action that must be taken. The threat that a bomb has been planted is usually made via the telephone. In most cases, these threats have been proved to be false and no device or material was located. However, the potential for loss of human life and property is so great that each situation must be pursued and evaluated.

A. Telephone Threat: The person receiving a telephone bomb threat should remain calm and obtain as much information as possible by completing the following checklist at the end of this section. If your phone is equipped with caller identification, write down the number that is on the display screen. After the caller hangs up, call 911. Give all available information then notify immediate supervisor.

B. Written Threat: Written threats can come in the form of a note, letter or fax, through the U.S mail or email. Any document will become evidence at the trial of any perpetrator. It may, in fact, be critical to a successful prosecution and positive identification of the perpetrator. It therefore is extremely important;

    1. NOT to handle the envelope or letter/note any more than is necessary and limit the number of persons who touch these items.
    2. Know who the people are that have touched these items so elimination fingerprints can be obtained.
    3. Once proper notification has been made to police/security personnel, place the item(s) in a folder or large envelope to protect them and tell others not to handle them.
    4. Immediately call local law enforcement.
    5. Safeguard the received material until it is given to proper authorities.

C. Suspicious Package: If a suspicious package or device is found, immediately notify the police. Do not touch or handle any suspicious item. Request all persons to leave the room the package is in. If the package is a suspected biohazard (e.g. Anthrax): It is unlikely that any threat of exposure to a biohazard, such as anthrax, will be found, but the potential exists. All such threats should be taken seriously.

1. Appearance:
    i. Powdery substance felt through or appearing on the package or envelope.
    ii. Oily stains, discoloration, or odor.
    iii. Lopsided or uneven envelope.
    iv. Excessive packaging material such as masking tape, string, etc.
    v. Excessive weight.
2. Handling Suspected Packages or Envelopes
    i. Do not shake or empty the contents of any suspicious package or envelope.
    ii. Do not carry the package or envelope, show it to others or allow others to examine it.
    iii. Put the package or envelope down on a stable surface; do not sniff, touch, taste, or look closely at it or at any contents which may have spilled.
    iv. Alert others in the area. Leave the area. Close any doors and assemble outside the room's entrance. Take actions to prevent others from entering the area.
    v. WASH hands with soap and water to prevent spreading potentially infectious material to face or skin.
    vi. Notify your supervisor.
    vii. If possible, create a list of persons who were in the room or area when the suspicious letter or package was recognized and a list of persons who also may have handled it.
    viii. Await arrival of assistance.

D. Bomb Threat Evacuation: A bomb threat evacuation is entirely different from a fire evacuation. The use of fire alarms is not recommended since it does not allow for a controlled evacuation. Upon locating or being advised of a bomb threat, Safety & Security will cordon off the area, and then consult with the Director of Safety & Security and/or on duty Police Supervisor for an evacuation decision. If a decision to evacuate is made, Safety & Security personnel, going room-to-room, will notify occupants of the decision to evacuate. If evacuation takes place, do not re-enter until the building has been searched and declared safe by the authority having jurisdiction. Primary evacuation routes must be searched prior to ordering an evacuation unless the on-scene police officer determines otherwise.

Telephone Bomb Threat Checklist

Questions to Ask Caller:

1. When is the bomb going to explode?_____
2. Where is it? _____
3. What building? _____
4. What does it look like? _____
5. What kind of bomb is it? _____
6. What will cause it to explode? _____
7. Did you place the bomb? Why? _____
8. What is your name? _____

Exact Wording of Threat:

Sex of caller: M / F

Race:_____

Approximate age: _____

Length of call: _____

Telephone # at which call received: _____

Time received: _____

Date call received: _____

Caller's Voice:

____ Loud ____ Excited ____ Lisp ____ Laughter ____ Slow

____ Raspy ____ Crying ____ Rapid ____ Deep ____ Normal

____ Calm _____ Soft _____ Nasal _____ Angry _____ Stutter

____ Deep Breathing _____ Disguised _____ Cracking _____ Accent

____ Distinct _____ Slurred _____ Whispering _____ Clearing Throat

Background Sounds/Noises:

____ Street Noise ____ Voices/Talking ____ Wildlife Sounds ____ PA System ____ Music

____ Static _____ Motor _____ Factory Machinery _____ Clear

____ Radio/TV _____Long Distance _____ Local _____ Office Noises _____ Weather

____ Cell Phone _____ Restaurant Noises

Other (Specify) _____

Caller's Attitude and Language:

Your name: _____

Your position: _____

Your telephone: _____

Date checklist done: _____

(Keep this checklist near your phone.)

Section 8: Fire Prevention and Workplace Hazards

It is the responsibility of all employees to prevent any type of fire in the building. Listed below are general items to accomplish this objective:

- Follow general guidelines listed in this plan.
- Smoking is not allowed in Grouse Mountain buildings. Extinguish all cigarettes in proper receptacles.
- Do not put any type of hot object, such as cigarette butts, in trash cans.
- All employees will know the evacuation routes and exits and will proceed to them when instructed.
- Employees will be instructed in the use of portable fire extinguishers, the hazards involved and their use in incipient stages of firefighting only.

Typical Fire and Workplace Hazards

- Electrical circuits, wiring and extension cords worn and frayed.
- Electrical appliances, such as, coffee pots, microwaves and portable heaters left unattended or on at the end of the day/ work week.
- Flammable Solvents, such as, gasoline, paint thinner or degreaser, in amounts greater than maintenance quantities.
- Flammable & combustible liquids not stored in a designated area or storage cabinet.
- Impaired fire controls

Housekeeping

Good housekeeping will be the responsibility of ALL employees.

- Waste materials are to be discarded in their proper places.
- Heat producing equipment shall be maintained in good working order and a minimum of 36 inches from combustible items.
- Personnel are responsible to keep their work areas neat and orderly.
- All aisles and exits will be kept clear.
- Access areas to fire extinguishers will be kept clear.
- Each supervisor will be responsible to properly train their employees who are required to handle, store and maintain hazardous materials.
- All fire/smoke doors are to remain closed and unobstructed from their intended function of retarding the spread of fire and smoke.

Post Emergency Evaluation

Following any emergency, a post-emergency evaluation will be conducted to evaluate the cause, employee and outside department actions, and to determine what corrective or preventative actions are necessary.

Emergency Action Plan Addendum

Grouse Mountain Environmental Consultants Office Building

Following is a list of individuals with special needs, either temporary or permanent, who indicate they may need assistance in evacuation of the building.

This list is confidential and will be available only to the individual's immediate supervisor, the safety contact.

	Name	**Building**	**Room**
1.			
2.			
3.			
4.			
5.			

Section 9: Standard Operating Procedures (SOPs)

Supervisors will provide an outline for all functions of tasks performed in their division. Each outline will be reviewed for completeness and accuracy prior to publication. The safety division will review the SOPs quarterly, or when otherwise necessary for updates and revision annually.

Safety Manual

All supervisors and employees are expected to be in total compliance with all policies as set forth in the safety handbook. All employees will receive, as part of a new hire packet, a copy of the company safety handbook. Receipt of handbook will be acknowledged in writing and added to the employee's personnel file.

Jobsite Safety Monitoring

Supervisors and employees will monitor safe work practice and compliance with all company policies and procedures. Employees will conduct at least one Job Site Analysis (JSA) for each day they are in the field. Review of the JSAs will be used as a tool for recognizing trends and adjusting procedures and/or behaviors prior to the occurrence of incidents.

Near Misses

All employees will report near miss incidents (close calls) using the near miss forms in the binders of each Grouse Mountain vehicle. Near misses should be reported immediately following the near miss, as soon as it is safe to do so. Near misses will be submitted to the safety officer and filed appropriately. Near miss incidents will be reviewed at the following safety meeting or sooner if the situation warrants. Any employee reporting a near miss will not be reprimanded for doing so.

Incident Investigations

Supervisors will be trained in incident investigation and report writing. Incident investigations will be conducted systematically, based upon facts, and without bias. Accurate, concise and complete reports will be written by the investigator, then reviewed by the administrator and the safety officer before filing. All incidents will be reviewed by the safety committee to determine the root cause. The basic root causes will be as follows:

- Equipment: Equipment causes will then be analyzed for mechanical modifications or repairs.
- System: System causes will be analyzed for policy or procedure modifications.
- Behavior: Behavioral causes will be analyzed for training modifications and/or disciplinary action.

Violations of Policy, Procedure, or Safe Practice

The safety officer will work closely with supervisors to ensure the monitoring of compliance with policies, procedures and safe practice. Violations will be discussed among the above persons. If necessary, violations will be reviewed by the administration for possible disciplinary action. Documentation will be provided by those involved in any disciplinary action. Discipline will be fair, firm and consistent.

Communications

Radio communications systems will be set up for all field crews on a prioritized, as needed basis, within budgetary guidelines. “Walkie/talkies” will be used where needed if a radio system is not available.

Safety policy, procedure, and practice WILL be kept and enforced to the highest company standard, and/or OSHA standard.

No Grouse Mountain employee is authorized to take risks on the job site.

The safety division will achieve a ZERO incident, accident, and injury work atmosphere.

Section 10: Accident Investigation

The goal of an accident investigation is to prevent similar losses/incidents from occurring in the future. Accidents and injuries are unexpected and cannot easily be anticipated. When circumstances and events lead to accidents, the objective is to learn from them, try to avoid their recurrence, and minimize any harmful effects. Grouse Mountain can accomplish these objectives by developing and maintaining a sound accident investigation process. Effective accident investigations are essential to making the most from unfortunate and regrettable accidents, injuries, and illnesses.

An accident investigation can assist management by making them aware of hazardous situations in the workplace. After hazards have been identified, management can then take the appropriate corrective action to prevent future losses. This will also demonstrate to the employees that the facility is committed toward providing a safe work environment.

An accident is a series of unexpected and unwanted events leading to an undesirable loss. The elimination of any one of these events will prevent adverse situations from occurring. Therefore, it is vital that those investigating the accident identify all situations possible that may have led to the accident. To maintain a quality safety environment, all accidents and close calls should be investigated.

Preventing accidents from occurring is the optimal result from effective safety management. However, when accidents do occur, identifying the cause(s) and determining appropriate preventative actions is critical to reducing similar accidents from recurring.

The supervisor should do the investigation immediately after the victim has received prompt medical care, designated management personnel have been notified, and there is no more threat of injury or property damage. The sooner the investigation is conducted following the accident, the more likely it is that factual and truthful information is available and will be provided.

The supervisor will be trained in incident response and accident investigation techniques, site awareness, and First Aid/CPR. This training will be conducted on an annual basis.

Accident, Injury, and Illness Reporting

All work-related accidents, injuries and illnesses shall be reported immediately or as soon as safely possible to the appropriate supervisor or supervisors. An accident, injury, and illness report will need to be filled out and turned in within the timeline set forth by OSHA Recordkeeping regulation, *29 CFR 1904*.

Procedure

The purpose of an investigation is to find the cause of an incident and prevent future occurrences, not to fix blame. An unbiased approach is necessary to obtain objective findings. The following protocol will be observed:

- The investigator will visit the incident scene as soon as possible while facts are fresh and before witnesses forget important details.
- If possible, an interview with the injured worker at the scene of the incident and a “walk” through will take place. Care will be taken to not repeat the act that caused the initial injury.
- All interviews will be conducted as privately as possible.
- Witnesses will be interviewed one at a time.
- The investigator will speak with anyone who has knowledge of the incident, even if they did not actually witness it.
- In incidents with any controversy or unclear facts, signed statements will be taken.
- Details of the incident: area, tools, and equipment will be graphically documented, using sketches, diagrams, and photos as needed, and taking measurements when appropriate.
- Focus will be on causes and hazards. An analysis of what happened will be developed, how it happened, and how it could have been prevented.
- The investigator will determine what caused the incident itself (unsafe equipment/condition, unsafe act, etc.), not just the injury.
- How will Grouse Mountain prevent such incidents in the future? Every investigation will include an action plan.
- If a third party or defective product contributed to the incident, evidence will be saved.

Investigators will use Grouse Mountain's Accident/Illness Report forms which will be available in each Grouse Mountain work vehicle and at the main office location.

Accident Causes

Investigators should understand that accident causes normally fall into three general categories, which include unsafe conditions, unsafe acts and program deficiencies. Each requires a different approach to solving the problem.

A. **Program deficiencies** involve failure or oversight of program to provide adequate safety policy and procedures, lack of hazard identification, failing to provide necessary training, not providing proper tools, equipment, or material to safely perform the job.

B. **Unsafe conditions** are the physical elements of accidents involving tools, equipment, materials, or facilities. Examples include wet or icy walking surfaces, poor lighting, missing machine guards, poorly designed workstations, poor housekeeping, improperly maintained equipment, etc.

C. **Unsafe acts** are the human element of the accident. Examples include willful disregard or indifference for safety, failure to understand proper procedure, and consciously using unsafe equipment.

Additionally, some or all the following equipment will be at the disposal of the investigator for a proper investigation:

- Writing equipment such as pens/papers
- Measurement equipment such as tape measures and rulers
- Cameras
- Small tools
- Audio Recorders
- All required PPE
- Marking devices such as flags
- Equipment manuals
- Flashlights
- Spare batteries

Initial identification of evidence immediately following the incident might include a listing of people, equipment, and materials involved and a recording of environmental factors such as weather, illumination, temperature, noise, ventilation, and physical factors such as fatigue, age and medical conditions.

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

Accident Review

Once the supervisor has completed the accident investigation form, it should be given to the: safety officer, administrator and Insurance Services claim representative for their review and records. The safety officer and administrator should sign off on the suggested action to prevent recurrence. This may include improving training efforts, conducting more detailed workplace inspections, utilizing different types of PPE, motivation techniques to ensure workers follow established rules, or upgrading tools and equipment.

Implementation

Once the best solution for corrective action has been identified, the next step is to effectively implement the method that will reduce the chance for recurrence. The most detailed accident report is worthless if it is not put into action. It must be decided who has the responsibility to implement the corrective measures and how those measures will be monitored to ensure they are being applied. A time frame should be placed on when specific activities are to be implemented.

Procedure for Injury or Illness on the Job

Supervisor or lead person immediately takes charge of the situation. Supervise/ administer first aid, if you are certified, (Good Samaritan Law applies). Arrange for transportation (ambulance, helicopter, company vehicle, etc.), depending on the seriousness of the injury. Protect the injured person from further injury. Accompany or take injured person(s) to doctor, hospital, home etc. (depending on the extent of injuries). Remain with the individual until relieved by other authorized persons when possible.

Once the injured individual is taken care of appropriately for the situation, notify supervisor or administration, if not already present.

When the injured person's immediately family is known, Grouse Mountain administration or emergency personnel will properly notify family members or have an appropriate person do so.

Do not move anything unless necessary, pending investigation of the incident.

EMPLOYEES AND SUPERVISORS ARE NOT TO CONTACT FAMILY, FRIENDS, OR ANYONE THE INJURED INDIVIDUAL KNOWS UNLESS SPECIFICALLY TOLD BY GROUSE MOUNTAIN ADMINISTRATION.

Documentation

All illnesses and injuries, no matter status, will be recorded and placed on file, the Accident/Illness Report form will be used to do so.

A. Minor injuries: requiring doctor or outpatient care: After the emergency actions following an injury, an investigation of the incident will be conducted by the immediate supervisor and any witness to determine the causes. The findings must be documented on the investigation form.

B. Major injuries: fatality or multiple hospitalizations: Top management must see that the proper people and organizations are notified as soon as possible, but at least within 8 hours of the incident. Incidents must also be reported to the owner/client as soon as possible or in a timely manner (within 24 hours of the incident). Call or contact in person the nearest OSHA office call the Wyoming OSHA number (1-307-777-7786). Top management will then assist the department in the investigation. The findings must be documented on our incident investigation report form and recorded on the OSHA 300 log, if applicable.

Section 11: Non-Routine Work

Occasionally, employees will be asked to perform non-routine work, which can be defined as work not normally performed by an employee during the normal course of job duties. In the event of non-routine work, the supervisor will determine the need for non-routine work and the hazards associated. Grouse Mountain will ensure that training is provided to the employees performing the non-routine work and they will be appraised of the hazards associated with the work and of procedures to follow.

It is the employee's responsibility to notify the supervisor of any unexpected non-routine work that may arise and gain permission to proceed. Employees should contact their immediate supervisor with questions concerning non-routine work.

Section 12: Fall Protection

The purpose of this procedure is to provide specific instructions for the use of fall protection, and to ensure that affected employees are trained and made aware of the safety provisions which are required by federal and state agencies. This procedure is designed for employees whose job assignments may expose them to fall hazards above (6) six feet.

Grouse Mountain shall be responsible for providing fall protection equipment. Supervisors shall be responsible for ensuring compliance with this procedure. Employees are expected to follow fall protection procedures, wear any PPE assigned to them, and ensure that their fall protection equipment is in safe operating condition.

The supervisor and employee(s) that participate in activities where a fall hazard of six (6) feet or more exists shall perform a Job Site Analysis (JSA) before beginning work. The fall protection work plan shall be discussed for each location and documented on the JSA form. If possible, the supervisor shall review and approve fall restraint and anchor points with employees. Employees traveling or working in an elevated area wherever a fall exposure exists shall make use of fall protection by securing their safety lanyard whenever feasible to an available substantial anchoring point.

The following will be reviewed in the JSA prior to beginning work:

- Anchor points will be selected based on force and load requirements.
- The use of anchor points will be discussed during the JSA.
- The selection of the anchorage point shall reduce free fall to the shortest distance possible (a maximum of 6 feet).
- Anchor points may be the equipment structure in some cases, if unavoidable.
- Guardrails and railings shall be used only as anchor points if they have been designated as such.
- Each employee on a walking/working surface four (4) feet or more above lower levels shall be protected from falling by a guardrail system (a safety net system or personal fall arrest/restraint system may also be used), whenever feasible.
- A body harness and restraint system shall be used when climbing ladders greater than 25 feet in height, unless the ladder is enclosed with a protective case.

Fall Protection Equipment

All work performed over 6' (feet) above ground or where a fall hazard exists, requires the use of a body harness and shock absorbing or self-retracting lanyards. A body harness must have straps that secure about the employee in a manner to distribute the fall arrest forces over at least the thighs, pelvis, waist, chest, and shoulders, with a means for attaching the harness to other components of a personal fall protection system. Self-retracting lanyards should automatically limit free fall distance to two (2) feet or less, must have components capable of sustaining a minimum tensile load of three thousand (3000) pounds applied to the device with the lifeline or lanyard in the fully extended position. The self-retracting lanyard must contain a drum-wound line that can be slowly extracted from or retracted into the drum under slight tension during normal movement by the employee. At the onset of a fall, the device automatically locks the drum and arrests the fall. Snap hooks and carabiners must be the automatic locking type that require at least two separate, consecutive movements to open. All fall protection systems shall follow OSHA Standard 1910.140

Definitions

Anchorage: A secure point of attachment for lifelines, lanyards, or deceleration devices. The anchorage point strength for fall arrest shall be capable of supporting 5000 pounds. The anchorage point strength for fall restraint shall be capable of supporting four times the intended load.

Body harness: Straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest, and shoulders with means for attaching them to other components of a personal fall arrest system.

Connector: A device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabineer, or it may be an integral component of part of the system (such as a buckle or D-ring sewn into a body belt or body harness, or a snap hook spliced or sewn to a lanyard or self-retraction lanyard).

Free fall: The act of falling before a personal fall arrest system begins to apply force to arrest the fall.

Guardrail system: A barrier erected to prevent employees from falling to lower levels.

Infeasible: Impossible to perform the work using a conventional fall protection system (i.e. guardrail system, safety net system, or personal fall arrest system) or technologically impossible to use any one of these systems to provide fall protection.

Lanyard: A flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or harness to a deceleration device, lifeline, or anchor point.

Personal fall arrest system: A system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, and a body harness and may include a lanyard(s), deceleration device, lifeline, or suitable combinations of these.

Personal fall restraint system: A system used to prevent an employee from falling. It consists of anchorages, connectors, body belt/harness. It may include lanyards, lifelines, and rope-grabs designed for the purpose.

Self-retracting lifeline/lanyard: A deceleration device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.

Work area: That portion of a walking or working surface where job duties are being performed.

Walking or working surface: Any surface, whether horizontal or vertical, on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, tanks, silos, but not including ladders, vehicles, or trailers.

Section 13: Hydrogen Sulfide Gas (H2S)

This procedure is established to provide guidelines for the safety and health of employees during operations and maintenance while working in areas where H2S is present. The following procedures affect all personnel and contractors who work for or perform work at any Grouse Mountain facilities and/or conduct pipeline inspections/maintenance where Hydrogen Sulfide is present. All employees and contract personnel will adhere to the requirements of this procedure and applicable owners' site-specific contingency plan.

Grouse Mountain will ensure that personnel who work in areas where hydrogen sulfide is present or is suspected are properly trained in hydrogen sulfide safety and the requirements of the owners' site specific H2S contingency plan. Employees will be made aware of the potential exposure of hydrogen sulfide prior to beginning work. All personnel who may be exposed to levels of H2S in excess of 10 ppm must be trained in hydrogen sulfide safety per Grouse Mountain policy.

Description

H2S is a poisonous gas that is heavier than air and tends to concentrate in low areas such as; ditches and ravines. The possibility of H2S presence in old/abandoned oil storage tanks and sulfur storage pit, among other places can be high.

Hydrogen Sulfide is a highly toxic and colorless gas that can paralyze your breathing system and KILL you in minutes. At low concentrations hydrogen sulfide has an offensive odor, like rotten eggs. At slightly higher concentrations hydrogen sulfide may have a sick or sweet odor and at high concentrations no smell can be detected. It is soluble in both water and oil. It is flammable and will explode. Caution must be used when working around sulfur pit vents and storage tanks.

Health and Physical Hazards

H2S is a serious workplace health hazard in concentrations noted below. It is primarily a respiratory hazard but also presents a serious fire hazard as it forms an explosive mixture with air between 4% and 46% by volume.

Concentration Levels

10 PPM	• Is detected by its odor • May cause eye irritation w/ prolonged exposure • Maximum allowable exposure average over an 8-hour period w/out respiratory protection
100 PPM	• Irritates eyes and throat • Impairs sense of smell in 3-15 minutes
300 PPM	• Immediately dangerous to life and health
500 PPM	• Causes dizziness • Breathing stops in a few minutes
1000 PPM	• Causes unconsciousness immediately and death w/in minutes

Detection of H2S

Although H2S has a characteristic "rotten egg" odor in low concentrations, the sense of smell cannot be relied upon for detection because the sense of smell is lost in a few minutes of exposure at moderate concentrations, and 60 seconds or less at high concentrations. H2S can only be accurately detected with direct reading instruments or detector tubes. If H2S is suspected, the H2S concentration must be determined with an approved H2S detector before personnel can enter the area.

Respiratory Protection

Respiratory protection equipment must be available at convenient locations in H2S work areas. All personnel expected to utilize respiratory protection equipment must be trained in its use and limitations. Respiratory protection must be utilized in areas where exposure is suspected or may exceed either 10 ppm averaged an 8-hour period, or 15 ppm averaged over 15 minutes. Chemical cartridge respirators or canister masks must not be used in H2S service.

Warning Signs/Alarms

If a monitor alarm goes off vacate the area and do not enter without proper respiratory protection. When determining an unknown H2S concentration, always use approved respiratory equipment, NIOSH-certified self-contained breathing apparatus (SCBA) or airline respirator with escape SCBA, and a monitor that will alarm when the Permissible Exposure Limit (PEL) exceeds the preset level of 10 PPM.

Personnel shall work in pairs in areas of likely exposure to concentrations of H2S. A standby person is mandatory in areas where personnel will be directly exposed to H2S concentrations of 300 ppm or greater even when respirators are in use.

Permitting Requirements

A person must not enter a tank, vessel, enclosed area or confined space, or any other area suspected to have H2S accumulation without addressing confined space entry permitting.

Section 14: Stop Work Authority

Every employee of Grouse Mountain Environmental Consultants is **responsible and authorized** to stop any work that does not comply with the following articles with *no repercussions* to them. It is also their responsibility to report any violation of any local, state or federal law or regulation, any violation of company policy or procedure, or any unsafe activity. Such a report shall be made to their immediate supervisor, any member of the safety division, or any member of the management team. Any such report may be done anonymously. All reported hazards will be corrected in order of priority, based upon the severity of the hazards before work will commence.

Authority

Employees have the authority and the obligation to stop any task or operation where concerns or questions regarding the control of Health, Safety, and Environment (HSE) risk exist. No work will resume until all stop work issues and concerns have been adequately addressed.

Retribution

Any form of retribution or intimidation directed at any individual or company for exercising their right to issue a stop work authority will not be tolerated by the company or host facility.

Responsibility

Employees are responsible to initiate a Stop Work Intervention when warranted and management is responsible to create a culture where stop work authority is exercised freely.

Managers will foster an environment of good communication between workers and themselves to help them understand the importance of stopping unsafe acts and conditions in the workplace.

Workers will communicate their needs and concerns with management daily and know that no retribution will come for using their stop work authority.

Process

The process is as follows:

A. When an unsafe act is identified the Stop Work Intervention is initiated.
B. This is communicated through the supervisor.
C. Must be initiated in a positive manner.
D. All affected personnel must be notified, including supervision, of the stop work issue.
E. The issue will be corrected to the satisfaction of all involved.
F. Work will resume only when safe to do so.

G. All stop work interventions will be documented for lessons learned and corrective measures to be put into place.

Reporting

Stop work reports will be reviewed by supervision to measure participation, determine the quality of the interventions and follow up, trend common issues, identify opportunities for improvement, and facilitate sharing of learning.

Follow-Up

While most issues can be adequately resolved in a timely manner at the job site, occasionally additional investigation and corrective actions may be required to identify and address root causes. Management will follow up on all stop work actions with all involved to make sure that all concerns have been identified and addressed to the satisfaction of all involved.

Section 13: Behavior Based Safety

Behavior-based safety is a process that helps employees identify and choose a safe behavior over an unsafe one.

The person component consists of the employees:

A. Physical capabilities

B. Experience

C. Training

The work environment represents:

D. Engineering Controls

E. Equipment

F. Job task

G. The work cultures

Behavior-based safety is based on four key components:

H. A behavioral observation and feedback process

I. A formal review of observation data

J. Improvement goals

K. Reinforcement for improvement and goal attainment

Safety in the workplace is the responsibility of everyone at Grouse Mountain. It is a combination of three measurable components: the person, their environment, and their behavior. Only when these three elements are combined can workplace accidents be eliminated. All employees of Grouse Mountain are encouraged and expected to participate in behavioral based safety.

Observation

This is one of the most important components of the behavior-based safety. Observations provide direct, measurable information on employees' safe work practices and may be conducted at any time with or without prior notification to the employee.

- Employees are observed performing their routine task. The observer documents both safe and unsafe behaviors.
- Supervisors will act as observers.
- Upon completion of an observation, the observer is expected to have a discussion with the observed employee to give feedback.

Feedback

The observer will:

- Review the observation with observed employee
- Start with a positive comment
- Reinforce safe behaviors observed first
- Describe and discuss unsafe behaviors observed
- Solicit from observed employee explanation of his/her unsafe behavior with open-ended questions
- Re-emphasize no consequence to observed employee

The employee is provided positive feedback on the safe behaviors and non-threatening feedback on the unsafe behaviors. They are also provided with suggestions on correcting unsafe behaviors

Review

Any data gathered during observations will be reported to the Safety Officer to determine improvement techniques in safe behavior or training protocols.

Section 14: Fatigue Management

The purpose of this policy is to establish the requirements for managing fatigue of Grouse Mountain employees. It is intended that this policy will reduce the risk of fatigue-related injuries and incidents in the workplace. This policy applies to all employees of Grouse Mountain.

Policy statement

Fatigue is a mental or physical exhaustion that prevents a person from functioning normally and can impair safe work performance. Fatigue can be caused by both work and non-work-related factors. Non-work factors include family responsibilities, social activities, and health issues, such as sleep disorders. Work factors include shift work, especially night shift, working extended hours, and working within abnormal time frames.

While not all people respond to fatigue in the same way, fatigue can cause reduced concentration, impaired co-ordination, compromised judgment and slower reaction times; ultimately increasing the risk of incidents and injuries. Grouse Mountain employees are accountable for managing fatigue by applying risk management processes as contained in this policy.

The risk management process in the fatigue management procedure is a tool for managing fatigue in the workplace. Grouse Mountain will provide initial and annual training on how to recognize fatigue, how to control fatigue through appropriate work and personal habits and reporting of fatigue to supervision.

Responsibilities

Managers and employees have a responsibility to ensure that fatigue does not impact the safety, health, and well-being of themselves and others. Work tasks will be periodically analyzed and evaluated to control fatigue.

Administration and supervisors are responsible for:

- Ensuring systems of work that minimize the risk of fatigue—for example, reasonable rosters, reasonable overtime practices, and adequate recuperation between shifts.
- Providing opportunities and areas (such as a break room) for employees to take breaks
- Monitoring workloads and work patterns to ensure employees are not placed at risk from fatigue.
- Providing information, instruction and training about risks to health, safety, or welfare of employees involved with shift work, extended hours and on-call arrangements.
- Ensuring employees performing shift work are properly supervised and that tasks are undertaken safely.
- Providing ergonomic equipment to improve workstation conditions such as anti-fatigue mats for standing, proper lighting and control of temperature, and other ergonomic devices as deemed appropriate.
- Setting work hour limitations.
- Controlling job rotation schedules to control fatigue.
- Allowing for enough sleep to increase mental fitness to control employee turnover and absenteeism.

Employees are responsible for:

- Participating in risk management processes
- Using time off from work to recuperate in order to be fit and able for the next shift.
- Participating in education and training in order to gain an understanding of fatigue.

- Avoiding behaviors and practices that contribute to fatigue, and which could place themselves and others at risk—for example, secondary employment, not using time off work to recuperate, or chronically use over the counter or prescription drugs to increase mental alertness. Employees are discouraged from taking any substance known to increase fatigue, including fatigue that sets in after the effects of the drug wear off.
- Recognizing signs of fatigue that could place health, safety, and well-being of themselves or others at risk and reporting this to their manager or supervisor.
- Using provided ergonomic equipment to reduce physical fatigue.

Procedure

Step 1 – Identifying fatigue hazards

The keyways to identify fatigue are understanding work and non-work factors that contribute to fatigue, recognizing physical and behavioral signs; and applying hazard identification processes.

Common workplace situations that may contribute to fatigue, if not properly managed, include:

- Long duration shifts which may result in a lack of concentration and reduce alertness;
- Insufficient breaks within and between shifts which reduces the time for rest and recuperation;
- High intensity work which may place excessive physical and mental burdens on employees; Work tasks will be analyzed and evaluated periodically
- Observing the signs of fatigue such as levels of alertness, reaction times, excessive yawning etc.
- Consulting with employees to find out if they feel regularly fatigued and what might be causing this
- Analyzing incidents especially those occurring at the end of a shift or between 0200 – 0600 hours

Step 2 – Guide to assessing fatigue-related risks

Assessing the risks of fatigue can be difficult because people respond differently to situations that may contribute to fatigue. It is well established, however, that there are some factors that will contribute to fatigue in most individuals either because normal body rhythms that regulate sleep are disrupted or because there is inadequate time for rest and recovery. There are potentially many work factors contributing to fatigue, but the main ones are:

- Total number of hours worked;
- Length of shifts;
- Length of the break between shifts;
- Number of breaks within a shift;
- Number of days free from work;

- Number of night shifts worked, especially consecutive night shifts; and
- Number of times on call.

In assessing the risk of fatigue, the key thing to remember is that fatigue is cumulative. Isolated occurrences of a high-risk factor will not usually create a high risk of fatigue. It is expected that for a situation to be assessed as high risk, several high-risk factors will be present or that the work pattern be on-going.

Step 3 – Controlling fatigue-related risks

Step 4 – Reviewing and monitoring fatigue-related risks

The final step in managing the risks from fatigue is to monitor and review risk assessments and the effectiveness of control measures. In doing this, consider whether:

- There have been any changes that may change risk assessments
- Control measures have been implemented as planned;
- Control measures are understood and are working as intended; and
- Any new problems have occurred as a result of implementing control measures.

Ways of reviewing and monitoring risk assessments and control measures include:

- Consulting with employees;
- Monitoring sick leave and other work absences that may indicate fatigue; and
- Considering whether fatigue is a contributing factor in incident reports, especially incidents that occur late in a shift and between 0200 and 0600 hours.

Section 15: Job Competency

Each employee of Grouse Mountain is expected to be trained and competent in their job duties. For a complete list of duties, responsibilities, training and education requirements by job title please see a Grouse Mountain administrator.

Grouse Mountain employees are expected to be sufficiently trained to perform their job duties and associated tasks *prior to* beginning work. Copies of all certifications showing completion of required job and/or task training should be forwarded to the main office to become a part of employee's permanent record. Grouse Mountain requires all task training to be updated on a regular basis. It is the duty of the Grouse Mountain's Safety Officer to ensure that employees have satisfactorily completed all training and are deemed competent in job duties and responsibilities prior to being allowed to perform job duties independently.

Section 16: Hazard Identification, Assessment, and Communications

Hazard Identification

Hazard identification and elimination is not only an inherent responsibility of supervision in providing a safe workplace for employees, but also requires employee involvement. As such, hazard evaluation and control shall be an on-going concern for all. Employees will be trained in the hazard identification process including the use and care of proper PPE.

It is the responsibility of all employees to identify, report, and correct, all possible hazards. Employees are particularly important in this process as they are in the best position to identify hazards in the workplace and day-to-day operations. *Reporting hazards is a protected activity and no action will be taken against anyone for identifying unsafe conditions.* Reports should be made to the supervisor for appropriate action.

Grouse Mountain has a procedure for conducting inspections of workplaces/jobsites for compliance with health and safety rules. The purpose of the in-house inspection is to identify hazards and unsafe practices before they cause an injury or accident. The hazard identification process is used for routine and non-routine activities as well as new processes, changes in operation, products or services as applicable.

Hazards are classified/prioritized and addressed based on the risk associated with the task. Formal safety and health inspections or all departments will be conducted at least annually. Supervisors should inspect their areas of responsibility quarterly. Any findings during the inspection should be discussed with the employees responsible for creating the condition. Everyone involved should discuss any suggestions, corrections, or changes necessary. A statement and checklist of problems, corrective actions taken or required will be properly recorded.

Hazard Assessment

Each Grouse Mountain department must assess the workplace it operates in and determine the hazards present and the PPE required. Supervisors, with the assistance of the Administration, must then select the proper PPE, communicate the selections to affected employees in training, and assure the selection fits. Before work begins on a location, a hazard assessment or job site assessment (JSA) should be completed. JSA forms are in a binder in each company vehicle. When completing a JSA the supervisor should:

- Involve all employees throughout the assessment
- Review tasks to be completed
- Discuss potential hazards
- Discuss solutions to potential hazards
- Ensure that proper PPE is available and utilized
- Ensure that proper tools and equipment are available
- Discuss how to and eliminate any hazards, if possible.

- Make any necessary changes or adjustments to the scope of the project to complete tasks safely.

Assessments should be used to initiate any physical changes required to eliminate any hazards to the workplace, tools, equipment, or procedural changes. Job procedures may need to be re-written as well as updated training requirements for involved employees.

Identified hazards will be addressed and mitigated before work is authorized to begin. The supervisor will document and make the appropriate changes. The changes will then be communicated to the workers and all appropriate JSA's will be signed.

Hazard Communications

As part of Grouse Mountain's overall safety and health program, a hazard communication program has been established. The hazard communication program is designed to comply with the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard.

The objective is to prevent occupational injuries and illnesses related to workplace hazards and chemical exposure by educating employees. This applies to all work areas where hazardous work conditions or chemicals are known to be present, both under normal conditions and in a foreseeable emergency. This program has four major components:

A. Posted warnings, container labeling, and any other form of warning.
B. Safety Data Sheets (SDSs) for known hazardous chemicals in the workplace and JSAs for identifying workplace hazards.
C. Employee education and training
D. Written program and chemical inventory

Hazardous Chemicals
The definition of hazardous chemicals, as given by OSHA, is any chemical which is a physical or health hazard.

Chemical physical hazard characteristics include substances that are:

- combustible
- compressed gases
- explosive
- flammable
- organic peroxides
- oxidizers
- pyrophoric (any substance that will ignite in air)
- unstable (reactive) or water reactive

Chemical health hazard includes substances which are:

- toxic or highly toxic
- irritants
- sensitizers
- carcinogens
- and those with target organ effects

Labeling and Other Forms of Warning
Supervisors will be responsible for maintaining the hazardous chemical list and updating it according to any changes, with a copy of the new inventory forwarded to Grouse Mountain Administration. The chemical inventory list is available to employees during working hours and is in their work area. Employees who have questions about the chemical inventory list should contact their immediate supervisor.

Grouse Mountain will ensure all known hazardous chemicals display, in English, a Hazardous Materials Identification System (HMIS), National Fire Protection Association (NFPA), or Right to Know (RTK) standard precautionary label stating:

**Note: non-English forms will be made available as needed.*

- Identity of the hazardous chemical(s)
- Appropriate hazard warning(s)
- Name and address of manufacturer or importer

Any portable chemical containers will be appropriately labeled with the chemical name and applicable hazard warning. This labeling system will be reviewed annual by Grouse Mountain Administration.

Safety Data Sheets (SDSs)
SDSs are written or printed material concerning product hazard determination, which are prepared and distributed with chemicals by chemical manufacturers and distributors. SDSs are written in English and contain the following information:

- Identity of the chemical as provided on the container label
- Physical and chemical characteristics of the material
- Physical hazards of the material
- Primary route(s) of entry
- Exposure limits, Threshold Limit Value (TLV), OSHA Permissible Exposure Limit (PEL) and supplier recommended limits
- Whether or not the material or components have been found to be a potential carcinogen by the International Agency for Research on Cancer (IARC). National Toxicology Program (NTP), or by OSHA
- Applicable precautions for safe handling and use
- Applicable control measures
- Emergency and first-aid procedures

- Date of preparation or date of last change
- Name, address and telephone number of the chemical manufacturer, importer, employer or other responsible party, who can provide additional information.

Grouse Mountain Administration is responsible for maintaining the SDSs. The SDSs for chemicals will be considered company wide. These must be accessible to employees during their work hours. If SDSs are not available or new chemicals in use do not have SDSs, employees should contact their immediate supervisor. A master copy of the SDSs list will be maintained by Grouse Mountain Administration.

Employee Training and Education
Effective employee training and education is the most critical component of our hazard communication program. A properly conducted training program will insure that employees are aware of hazards in the workplace and appropriate control measures to protect themselves. Grouse Mountain Administration coordinates the employee training and education program for the facility.

All employees who work in areas where hazardous chemicals are used and/or maintained and those who may be exposed in an emergency are involved in the employee training and educational program. This program is conducted by the appointed Grouse Mountain Safety Officer.

Section 17: Confined Spaces

The purpose of this procedure is to establish the minimum requirements for insuring safe entry and work within permit-required confined spaces. This procedure applies to all personnel and contractors working in support of operations on all Grouse Mountain projects.

All Grouse Mountain personnel who are to serve as confined space attendants, entrants, and entry supervisors will be trained and authorized. Supervisors will be responsible for the proper use and administration of the entry permit for entry into the confined space. They will oversee all atmospheric testing prior to and during entry into permit required confined spaces and verify that conditions are acceptable. They will ensure that a copy of the entry permit is posted at the work site and removed at the completion of the job or end of the workday, whichever is first. A copy of the permit shall be maintained on file for a period of one year. A review of the cancelled permits will be made annually to revise the program as necessary to ensure that employees are protected from permit space hazards. They will ensure a trained attendant is provided outside the space for the duration of the entry operation. An attendant is only to monitor one confined space entry at a time.

Procedures

A. Isolation

1. All hazardous energy sources associated with permit spaces that may expose entrants to potential injury shall be isolated, locked out and/or tagged out in accordance with Grouse Mountain Lockout/Tagout procedures prior to entry.

B. Ventilating, Purging, Flushing or Inerting

1. All permit entry spaces shall be thoroughly ventilated, purged, flushed and/or inerted as necessary to ensure the elimination and/or control of all hazards that could cause entrant's injury and/or illness.

C. Atmospheric Testing

1. The entry conditions in the permit space shall be tested to determine if acceptable entry conditions exist before entry is authorized to begin.
2. Monitoring equipment shall be properly calibrated on at least a monthly basis or more frequently as deemed necessary.
3. The tests and monitoring shall be conducted periodically in permit spaces as necessary to determine if acceptable entry conditions are maintained during entry operations.
4. Tests for atmospheric hazards shall be conducted in the following order:
   i) Oxygen (19.5% - 23.5%)
   ii) Presence of combustible gases or vapors (less than 10% of LEL)
   iii) Presence of toxic gases or vapors (less than respective OSHA PEL)
5. All personnel performing tests and monitoring for permit space entry shall be properly trained in the use and limitations of the testing and monitoring equipment.
6. Measures shall be taken for at least the minimum response time of the test instrument (specified by the manufacturer).
7. The air monitoring results shall be posted every two (2) hours and after each break on the permit by the attendant. For extended entries, the supplemental air test form shall be used.
8. If monitoring indicates that the space contains a hazardous atmosphere, the space shall be re-ventilated, purged, or inerted until acceptable entry conditions have been restored.
9. Air monitoring data shall be recorded on the Confined Space Entry Permit. The entrants shall be given the opportunity to participate in and review calibrated air monitoring data before entry.

D. Reasons to Stop Entry

1. The confined space entry shall be terminated, and the permit will be closed out for any of the following reasons:
   i) Oxygen levels drop below 19.5% or climb above 23.5%
   ii) The Lower Explosive Limit (LEL) exceeds 10%
   iii) The attendant must not leave the space without a trained attendant as a replacement
   iv) The entry permit expires
   v) A non-entry emergency arises (e.g. fire or explosion in another area of the site)

vi) An Immediately Dangerous to Life or Health (IDLH) condition is determined to exist; **Grouse Mountain does not work in IDLH conditions.**

2. If a hazardous atmosphere is detected (O_2, LEL, Toxic containment) the space shall be evaluated to determine how the hazardous atmosphere developed and measures shall be implemented to protect employees from the hazardous atmosphere before any subsequent entry takes place.
3. When Grouse Mountain has reason to believe that the measure taken under the permit space program may not protect the employees. Grouse Mountain shall revise the program to correct deficiencies found to exist such as: hazards not covered, an accident or near miss, an employee complaint or an unauthorized entry.
4. At any time the employee can request a permit space to be re-evaluated if they feel a change has occurred in the permit space. The employee is also entitled to request additional monitoring.
5. Entry permits will be closed out and a new one issued at the end of shift or if entry conditions change, the scope of work changes, or a new hazard is perceived.

E. Equipment

1. The following equipment shall be properly maintained and used to ensure the safety of employees entering permit spaces:

i) Communications equipment

(1) Communications between the entrant and attendant may be by voice, visual, or radio contact depending on the size/depth of the space and the noise in the area.

(2) The attendant shall have a working radio or cellular phone to communicate with the entry supervisor.

ii) Personal Protective Equipment

(1) All proper PPE will always be worn.

(2) Additional equipment may include protective coveralls, boots, gloves, knee pads, face shields, UV eye protection, etc.

(3) For entries with respiratory hazards, supplied air or air purifying respirators shall be selected and used in accordance with Grouse Mountain Respiratory Protection Procedures.

(4) Fall protection (where applicable) shall be provided by a full-body harness and lanyard.

(5) Any other identified hazards shall be protected against by appropriate equipment.

iii) Lighting Equipment

(1) Enough lighting shall be provided for all jobs and shall provide at least 5-foot candles of light.

(2) In potentially explosive atmospheres, lighting units shall be UL listed for hazardous atmospheres or explosion proof.

F. Rescue and Emergencies

1. Prior to entry, the attendant and entrant(s) shall decide on the proper procedures to initiate for a non-entry rescue of personnel entering the permit space.
2. Retrieval equipment used shall consist of a full body harness, with a retrieval line attached at the center of the back near shoulder level, above the entrants' head, or another point for successful removal of the entrant.
3. The retrieval line shall be secured to a mechanical device or other fixed point outside the space capable of vertical retrieval in spaces more than five (5) feet.
4. If the use of a full body harness and retrieval line cannot be utilized for a safe rescue of personnel, the attendant shall ensure that an SCBA is on stand-by for the duration of the entry if an entry rescue is needed.
5. In the event of an injury during the entry, personnel are to be removed from the space and given medical treatment in accordance with Grouse Mountain Emergency Response Procedures.
6. If an outside rescue and emergency services provided it must be able to respond in a timely manner and in addition:
    i) Have the capability to reach the victim within a time frame that is appropriate for the permit space hazards.
    ii) Be equipped for and proficient in performing the needed rescue.
    iii) Be informed of the hazards they may confront and provide access to the permit confined space.
7. When Grouse Mountain designates its employees to provide permit confined space rescues it shall:
    i) Provide the employee with PPE and training that is needed to conduct permit confined space rescue.
    ii) Provide training to employees that is needed to perform permit confined space rescues. The employer shall ensure that the employee has successfully completed the training.
    iii) Provided first aid training to the employee that is assigned to perform permit confined space rescues.

G. Signage Requirements

1. Upon opening the permit space, a "DO NOT ENTER" sign shall be posted at the entrance. This sign shall stay in place until the Confined Space Permit is completed and signed. A "DANGER CONFINED SPACE ENTRY IN PROGRESS, NO AUTHORIZATION ENTRANTS," sign will be in place upon entering the permit space by any occupant. Barriers shall be set up to protect entrants from pedestrian or vehicles hazards.

H. Training

1. Entry Supervisors, Attendants, and Entrants
    i) Initial training shall be provided before an employee is first assigned to permit-required confined space entry duties.

ii) The training shall provide employees with the necessary understanding, skills and knowledge to safely enter, work in and exit permit spaces.

iii) The training shall establish employee proficiency in the required duties and shall introduce new of revised procedures as necessary.

iv) The training shall include hands on use of entry and retrieval equipment used for permit space entries.

2. Retraining

i) Personnel shall be retrained whenever:

(1) There is a change in permit space operations that present a new hazard unknown by the employee, or

(2) There is reason to believe that there are either deviations from the entry procedures or inadequacies in the employee's knowledge or use of the procedures.

(3) There is a change in assigned duties. c. Certification

ii) The training shall be certified and contain:

(1) Employees' name

(2) Employees' signature

(3) Signature of the trainer(s), and

(4) Training dates

iii) The training certification shall be kept on file on site and available to the employees and authorized representative.

The Confined Space Program will be reviewed annually and will be revised as necessary.

Duties

Entrant:

- Will be named on Entry permit
- Will perform all authorized work inside the Confined Space
- Will be trained in entry procedures
- Will be in constant communication with the attendant
- Will be trained in hazardous and physical atmosphere awareness
- Will exit the space when told to by the attendant alert the attendant to any dangerous conditions
- Will wear all appropriate PPE

Attendant:

- Will be trained as an attendant
- Will be stationed outside the primary entrance while the confined space work is being done
- Will summon the rescue team if necessary

- Will monitor the atmosphere inside and outside of the confined space
- Will be in constant communications with all entrants
- Will be trained to understand the effects of atmospheric hazards and will order the evacuation of the space if necessary
- Will not leave unless relieved by another authorized trained attendant Supervisor:
- Will determine if the conditions are acceptable and will authorize the entry into the space
- Will oversee the operation and can terminate the entry if he/she deems it necessary

Definitions

Confined space(s) is specifically defined as a space that:

A. Is large enough to bodily enter and do assigned work.
B. Has a limited or restricted access for entry or exit.
C. Is not designed for continuous human occupancy.

Permit required confined space is a confined space that has one or more of the following characteristics:

A. Contains or has the potential to contain a hazardous atmosphere.
B. Contains a material that has potential for engulfing an entrant.
C. Has an internal configuration that could trap or asphyxiate an entrant due to sloping or converging walls or floors that taper to a smaller cross section.
D. Contains any other recognized serious safety or health hazard.

Non-permit required confined space- is a confined space that poses no potential and/or actual atmospheric hazards and has been designated as such by evaluation and approvals.

Authorized Attendant- A person who is trained and authorized by this procedure and the Entry Supervisor. They shall be stationed outside the permit space to monitor the authorized entrant(s) and perform all the support duties required by this procedure. **No attendant may monitor multiple confined spaces even in the event of an emergency.**

Authorized Entrant- The person who is trained and authorized by this procedure and the Entry Supervisor to enter a permit required space to perform work.

Entry Supervisor- The person who is trained by this procedure and is responsible for determining if entry conditions are acceptable. He/she will authorize, oversee and terminate the entry operations while fulfilling all the duties required by this procedure.

Entry- The action by which any part of the entrant's body breaks the plane of an opening into the space.

Entry Permit- The written document required to allow and control entry into a permit required space containing all the information designated by this procedure.

Hazardous Atmosphere- An atmosphere that exposes employees to a risk of death, incapacitation, injury or acute illness from one or more of the following causes:

A. A flammable gas vapor or mist in excess of 10% of its Lower Explosive Limit (LEL).

B. An airborne combustible dust at a concentration that obscures vision at a distance of five (5) feet or less.

C. An atmospheric oxygen concentration below 19.5% (oxygen-deficient) or above 23.5% (oxygen-enriched).

D. An atmospheric concentration of any substance in excess of its Permissible Exposure Limit (PEL) (as published in Sub-part Z, 29 CFR 1910) or if no PEL, based upon otherwise outside acceptable limits indicated on MSDS's (Material Safety Data Sheets).

E. Any atmospheric condition recognized as immediately dangerous to life or health.

Section 18: Benzene Awareness

Benzene is a clear, colorless liquid with a sweet distinctive odor. It is also potentially toxic, flammable, and volatile. Benzene may be present in many liquid mixtures, such as crude oil and condensate, gasoline, refinery and petro-chemical process streams, and some solvents. It is not soluble in water. Site-specific orientation should inform you if you are working in a regulated Benzene area.

Avoid inhaling, swallowing, or allowing contact with your eyes and skin. The odor of Benzene does not provide an adequate warning of its hazard. Long-term or chronic exposure to Benzene may result in the development of various blood disorders ranging from anemia to leukemia. Further, many blood disorders associated with Benzene may occur without symptoms.

Exposure to concentrations above 50 ppm over a short period of time may produce such symptoms as:

- Headaches, dizziness, nausea, or intoxication
- Irritation of eyes, nose, and respiratory tract
- Breathlessness, irritability, euphoria, or giddiness

Severe exposure to concentrations above 100 ppm of Benzene may lead to convulsions and loss of consciousness. Smoking is prohibited where Benzene is used or stored. Proper PPE requires eye and face protection, gloves, sleeves, aprons, boots, and proper respiratory protection. Benzene liquid is highly flammable, and vapors may form explosive mixtures in air. Fire extinguishers must be readily available in areas where benzene is used or stored. Employees will be made aware of site-specific contingency plans where benzene is used and stored. They will be trained what to do in case of an emergency on the site that they are working on.

Section 19: Naturally Occurring Radioactive Materials (NORM)

This procedure is to be followed when working in a facility identified as a NORM site and identifies the safety officer as the program administrator. This procedure applies to all personnel (and contractors as applicable) working in support of operations for or on Grouse Mountain facilities. Supervisors and employees will follow this procedure when working at a NORM facility or location. The purpose of this guideline is to minimize personnel and contractor exposure to the very low levels of radioactivity present in equipment where NORM exists.

Site Identification

Facilities identified, as NORM Sites will implement the safe practices and disposition procedures outlined herein. Locations with steady external gamma radiation levels greater than 5 times the geographical areas background at contact with equipment will be classified as "NORM Sites". This level is based on present industry practice. For purposes of this guide, the minimum background measurement for use in identifying NORM sites will be 1000 cpm.

Safe Practices

The potential of radiation exposure from alpha particles and gamma rays may exist during maintenance activities at NORM Sites. Protective measures shall be established at NORM Sites for the following operations when performed on NORM containing equipment:

- Dismantling equipment;
- Vessel/tank entry;
- Scale removal;
- Pulling and rattling downhole equipment/tubing, and
- Equipment/pump repair.

General Precautions

- Direct skin contact with NORM containing scale and solids will be avoided.
- Eating, drinking, smoking and chewing will not be allowed in the immediate work area.
- NORM containing scale and solids will be handled in a wet state or contained environment to minimize airborne particles.
- Protective equipment and clothing which has been in contact with NORM shall be cleaned prior to leaving the immediate work area.
- Any disposable clothing, such as coveralls, gloves and booties, will be removed and placed in the same storage container as the NORM-containing scales or solids.
- Personnel will thoroughly wash their hands and face following any skin contact that occurs, prior to eating, drinking, or smoking, and when the work is completed for that day.

Protective Equipment

Time, distance, and shielding are the best protection however PPE is also necessary when working on a NORM site. Personnel working in or around NORM containing equipment in a manner which could result in release or direct contact with radioactive surfaces, gases or dusts shall be equipped with the following PPE as appropriate:

- Slicker suit or disposable coveralls;
- Rubber boots;
- Impervious gloves, and
- High efficiency respirator for radionuclides or an air supplied respirator.

Training

All personnel assigned to facilities, leases or wells identified, as NORM Sites will receive instructions on the recognition of potential NORM containing equipment/material; health effects associated with exposure to low level radiation; routes to entry, safety precautions, handling procedures for dismantling equipment, vessel/tank entries, scale removal, equipment repair, pulling and rattling tubing, etc., and proper use and limitation of respirators and protective equipment.

NORM Handling Precautions

Some gas plant and oil field production equipment may contain NORM. This NORM may fix or attach itself to inside surfaces of oil and gas production equipment as scale or collect in vessels as sludge and sediment. If the material is external to your body - for example, if it remains inside closed equipment it does not emit enough radiation to be a health hazard.

If the material contacts your skin or gets in your body, it can present a potential, though minor, health hazard. This hazard can be avoided simply by taking steps to avoid contact, ingestion or inhalation of the material. When potential NORM containing equipment is opened, PPE should be worn to minimize skin contact. When potential NORM containing materials are sanded or mechanically cleaned from equipment and airborne dust is generated, a greater degree of control may be necessary, such as working in well-ventilated areas and using respiratory protection. You should not eat, drink, smoke or chew anything in areas where this material is located and should always wash your hands before touching anything that may be eaten or otherwise ingested.

Appendix A: COVID-19 Safety Procedures

This appendix is established to provide basic steps that Grouse Mountain is taking to reduce the risk of worker exposure in the workplace to SARS-CoV-2, the virus that causes COVID-19.

Grouse Mountain has been monitoring the progressing COVID-19 pandemic closely and has been, and will continue to be, following the guidance protocols set in place by the World Health Organization (WHO), and the Center for Disease Control (CDC) as a baseline for response planning. Grouse Mountain will stay abreast of guidance from the WHO and the CDC, as well as local health agencies, and continue to incorporate recommendations and resources into workplace-specific plans.

The following guidelines affect all personnel who work for Grouse Mountain facilities. All employees will adhere to the requirements of these guidelines.

Prevention:

To address COVID safety protocols, we advocate for our employees to use good judgment. Most employees are coming into the office but are spread out and we do allow employees to work from home. Grouse Mountain utilizes Microsoft Teams for all meetings to reduce contact.

For field work, we try to minimize exposure by encouraging employees to wear masks and use alcohol-based hand sanitizer when traveling with others and be respectful to others concerns. We have also traveled in separate vehicles and had single occupancy accommodations when appropriate for overnight trips.

Our good hygiene and infection control practices include:

- Frequent and thorough hand washing
- In addition to hand washing, alcohol-based hand rubs/sanitizers with at least 60% alcohol are provided throughout the workplace.
- Routine cleaning and disinfecting of surfaces, equipment, and other elements of the work environment. Products with EPA-approved disinfectant labels with claims against emerging viral pathogens are used for disinfecting.
- Employees are encouraged to stay home if they are feeling sick.
- Employees are encouraged to cover coughs and sneezes.
- Tissues and trash receptacles are provided throughout the workplace.

Prompt Identification and Isolation of Sick People:

- Employees are encouraged to self-monitor for signs and symptoms of COVID-19 if they are sick or suspect possible exposure.

- If an employee is sick and is experiencing COVID-19 symptoms or has a fever of 100.4 or higher, they are encouraged to self-isolate and get tested for COVID-19.

- If an employee tests positive for COVID-19 they are required to quarantine according to current CDC guidelines.