Rangeline Group

Safety and Health Manual 2024

For Managers, Supervisors, Employees and Subcontractors of :

Rangeline Tapping Service, Inc.

Rangeline Pipeline Services

R&M Service Solutions, LLC

Cryostop LLC

RUTS Construction

"PIPELINE SERVICES AND SOLUTIONS"

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SAFETY & HEALTH POLICY STATEMENT

For the purpose of this Safety and Health Manual, it is understood that "Rangeline Group" refers to the companies under Rangeline Group. This includes Rangeline Tapping Service, Inc, Rangeline Pipeline Services, LLC, RUTS Construction, LLC, Cryostop, LLC and R&M Service Solutions, LLC. All of Rangeline Group and its employees are covered under the provisions set forth in this Safety and Health Manual.

Rangeline Group will strive to provide a safe work environment for all of its employees, subcontractors, and clients. Safe working conditions are achieved through efficient communication, thorough hazards analysis and continuous training. In addition, Rangeline Group will adhere to all regulatory requirements (state, federal, and local), and where these regulations are insufficient, will work to maintain best-industry practices.

Rangeline Group believes that all injuries are preventable; therefore, we will continually strive to prevent injuries from occurring. Management also recognizes that every employee shares in the responsibility for safety on the job; consequently, safe work practices and timely reporting of incidents and potential accidents (i.e., near misses and unsafe conditions) are a condition of employment.

Everyone is encouraged to provide suggestions and establish high personal goals for eliminating accidents and injuries. Participation in the meetings to discuss the safety aspects of each assignment is mandatory. If the source of a hazard cannot be eliminated, the use of special procedures, safety devices, or protective equipment and clothing must be utilized to reduce the exposure potential; if these measures cannot sufficiently reduce the potential for harm, then the job will not be performed.

Rangeline Group will take a **proactive approach** to conducting the safety and health program. Incidents and near misses will be investigated, and the pertinent information that is uncovered during the investigation will be distributed or discussed during the following safety meeting. Please refer to the Accident Investigation section for further detail.

SAFETY & HEALTH TRAINING

Training employees is a means for taking a proactive approach to safety in the workplace. The goal is to train employees on issues that may prevent or eliminate incidents from occurring. When employees take this knowledge and couple it with safety behaviors, the result is a safe work environment.

Rangeline Group Management-wide safety training will be held on a regular basis. While Job Safety Analyses are considered jobsite hazard assessments, they are also considered training. JHAs are conducted daily or as the tasks change. A training schedule will be developed to comply with state and federal regulations. Listed below are some examples of subjects that will be trained upon annually:

- Hazard Communication
- Personal Protective Equipment
- Incipient Fire Safety; Protection and Prevention
- Bloodborne Pathogens
- First Aid/CPR
- Proper Lifting Techniques/Manual Lifting
- Electrical Safety
- Office Safety
- Continuing Driving Safety Awareness Classes and Vehicle Safety
- Emergency Procedures to include Hazardous Materials
- Substance Abuse
- Lockout/Tagout
- Fall protection
- Hazardous Materials
- Respiratory Protection
- Hydrogen Sulfide
- Hearing Conservation

As the need arises, additional topics will be added to the list. In addition, job-specific training will be provided whenever applicable.

If a property incident, injury or near-miss occurs on a company job site, then the root cause or determining factor in the incident will be addressed at the next safety meeting or sooner if necessary. Training classes shall be long enough to ensure employee comprehension. In addition, short quizzes will be given periodically to test employees' retention of the material.

Safety Training Attendance Is Mandatory!

End Of Policy

General Safety & Health Provision Rules

Note: Many of the topics addressed briefly in this section are discussed in more depth within the manual. These rules apply to all Rangeline Group employees, including managers, supervisors, visitors, subcontractors, and client personnel.

1. Each employee is required to adhere to the safety rules listed in this manual in order to fulfill their responsibility to the safety program. This means that no one is to work in an unsafe situation or condition, and if an unsafe situation or condition exists, then this must be reported and corrected immediately. If this includes shutting the job down, then shutting the job down is permissible.

2. All work-related injuries or illnesses must be reported ***immediately.*** This includes first aid (minor injury) incidents. "Immediately" is defined as within 10 minutes of the incident.

3. Any vehicle- and/or equipment-related incident must be reported ***immediately.***

4. Any injury that occurred off the job and could result in lost work time must be reported to a supervisor as soon as possible, and no later than two hours prior to the next work shift.

5. All near-misses must be reported to the supervisor before the end of the shift in which they occurred; near-misses will be documented on a Near Miss report. Near-misses will be discussed with all employees during the next safety meeting.

6. Attempts shall always be made to eliminate possibilities of environmental damage. Releases and spills shall be reported immediately and remediated according to the SDS recommendations. All wastes shall be disposed of properly in approved waste disposal sites/reclamation centers.

7. Rangeline Group employees will follow all client rules and policy recommendations. When there is an absence of these rules, Rangeline Group will set the high safety standard and inform management of this lack of safety initiatives.

8. Horseplay or fighting is not permitted at any location.

9. All persons operating vehicles for Rangeline Group in any capacity will wear seat belts.

10. Never run on the job unless there is an emergency.

11. Equipment, materials, and work areas shall be maintained in such a fashion as to minimize hazards. In other words, maintain clean work areas and equipment.

12. Avoid skin contact with all chemicals, beware of other means of bodily entry, and take the proper precautions.

13. The proper personal protective equipment shall be worn at all times. Rangeline Group requires the use of PPE.

14. The illegal use, possession, transportation, or sale of drugs, alcoholic beverages, firearms, deadly weapons, or explosives while on company or client property is

prohibited. The use of prescribed drugs or any over-the-counter drug that might impair your ability to work safely must be reported to your supervisor before work.

15. Only qualified employees are allowed to operate equipment. The employer shall permit only qualified personnel with training or experience to operate company equipment and machinery.

16. Riding in the bed of trucks or in other non-approved areas is prohibited. “Non-approved areas” include areas that are not protected by a seatbelt.

17. Use the three-point contact procedure when getting on or off of any equipment. Do not jump off equipment unless following emergency evacuation procedures involved with power line strikes.

18. Smoking is allowed only in designated areas. Smokers are not allowed to take smoking materials into non-designated areas.

19. Whenever a safety device is removed from service and/or defeated, the appropriate supervisor shall be notified, the device tagged, and the action properly documented. If equipment is still operating, restrict entry and monitor continuously. Document all actions.

20. No work may be started in any area or on any equipment without the knowledge and consent of the appropriate supervisor/client representative. ***Never operate equipment that you are not trained, certified and authorized to operate.***

21. Job Hazard Analysis are to be conducted before each day's tasks begin or as major work scope changes. All persons affected by the work will attend the JHA meetings. If workers show up after the meeting has been conducted, then the worker must be briefed as to the JHA findings and the Supervisor is responsible for this safety briefing.

22. Frequent inspections or analyses of the work environment involves a variety of work site examinations by competent persons in order to identify existing hazards and conditions and operations in which changes might occur to create new hazards.

23. Operation of equipment having a “DANGER! DO NOT OPERATE.” tag is prohibited.

24. All energy will be controlled through appropriate Lockout/Tagout procedures.

25. Do not attempt to do a job alone that takes at least two people to do correctly. The Supervisor will periodically check on persons working alone. All persons working in remote areas must have a form of communication to summon emergency services if needed.

26. Finger rings, loose clothing, unsecured long hair, wristwatches, and other loose accessories should not be worn when within arm’s reach of any unguarded operating machinery or electrical equipment

27. Use only proper tools and equipment maintained in good working condition.

28. Gasoline must not be used for any purpose other than motor fuel. No employee will siphon gas by mouth, pour into the fuel tank of an engine that is running, or use as a cleaning solvent. Gasoline will be transported in approved metal containers.

29. Use proper lifting techniques when lifting or carrying objects. Use legs to lift, keep load close to body, keep feet shoulder-width apart, and ask for assistance to lift heavy objects are a few reminders in proper lifting.

30. Erect barricades around hazardous work areas such as holes in decking, trenches, overhead hazardous work, open unattended vessels, or hazardous storage.

31. Fall protection shall be worn when working at heights greater than 6 feet.

32. Pay close attention to slip, trip and fall hazards and eliminate those hazards immediately.

33. If a normal procedure must be changed to accommodate the work situation, contact client and Rangeline Group management before this change is made.

34. All work areas will be equipped with properly working fire extinguishers.

35. Visitors must follow all applicable safety rules as well as be authorized to be in any area.

36. Do not introduce any flame, spark, or sufficient heat (to include non-intrinsically safe equipment) into areas that have a potential for flammable materials/atmospheres. Follow Hot Work Procedures.

37. Follow Defensive Driving techniques when operating motor vehicles. Follow all applicable local, state and federal transportation laws.

38. Do not enter confined spaces unless proper procedures have been followed.

39. All jobsites will have first aid and eye wash equipment readily available, and these supplies shall be in good condition.

40. Communication in all aspects is highly important. If you do not understand any directive or procedure, say so. Relay all occurrences that have an effect on safety to supervisors whether you think the occurrence is important or not. Always adhere to the highest safety standards.

End Of Policy

Subcontractor Guidelines and Procedures

Rangeline Group does employ subcontractors. The Subcontractor Guidelines and Procedures, as well as all other safety requirements, are binding upon all subcontractors.
Adherence to these guidelines and procedures are a prerequisite for work on all Rangeline Group Management projects. Furthermore, all company subcontractors will abide by Rangeline Group client requirements. After all subcontractor employees have read and understood these guidelines and procedures, sign the Subcontractor Policy Acknowledgement and return to the Rangeline Group office. A copy of these guidelines and procedures should be kept for reference. Failure to follow both company and client safety procedures is grounds for removal from worksite and potential termination of all future work relationships.

An incident-free project is a high priority for Rangeline Group Management. Maximum subcontractor management and employee attention shall be placed on this priority.

Each subcontractor is responsible for the safety of his employees. The Subcontractor is responsible for the action or inactions of his employees. Subcontractor is responsible for protecting his employees from the byproducts of work conducted, i.e. fumes, silica, and chemical exposure.

All subcontractor employees will work in conjunction with Rangeline Group employees in order to ensure workplace safety. All parties, whether individually or as a group, are responsible for stopping work if a hazard exists. Subcontractors are responsible for bringing safety concerns to Rangeline Group Management, management.

These guidelines and procedures are minimum requirements and are not a substitute for an active subcontractor safety program. Likewise, each subcontractor will institute safety per job/client specific requirements. Rangeline Group will assist in fulfilling client-specific requirements for subcontractors but are not wholly responsible.

Subcontractors will attend and participate in Rangeline Group Jobsite Safety Analysis (JHA) conducted each day at every job site. This attendance does not take the place of the subcontractors' regularly scheduled safety meetings/training. Rangeline Group is not responsible for training subcontractor employees.

Subcontractors will abide by all local, Federal, and State laws.

Subcontractors' suppliers will abide by the same conditions herein.

Subcontractors will designate a Safety Representative for each job. This person will work in conjunction with Rangeline Group Management, management and Safety. The Safety Representative must be qualified as deemed within same industry.

Subcontractor will report all near misses and incidents to Rangeline Group immediately.

Subcontractor will maintain the following records, and these records are subject to Rangeline Group inspection:

Record of all industrial injuries.

1. Individual injury reports.
2. Safety training rosters.
3. Job site inspection reports.
4. Results of any OSHA or regulatory agency report.
5. Subcontractor HSE Employee Manual.
6. All other safety-related documentation.

Rangeline Group reserves the right to employ subcontractors or discontinue employment of subcontractors based on workplace safety history.

Subcontractors are responsible for providing trained employees that are willing to follow all safety regulations. “Trained employee” is an employee that is capable of efficiently completing assigned tasks without causing injury to others or property damage.

General Safety Rules for Subcontractors

The following rules are guidelines that reinforce the subcontractors’ safety programs. These guidelines are not intended to provide the exact, written context of the subject matter. The following information highlights key information. The final application of all safety requirements is the sole responsibility of each Subcontractor.

- Unsafe workmanship, hazardous risk taking, and horseplay will not be tolerated at any time.
- Subcontractors will limit presence to those areas which are deemed within subcontractors’ scope of work.
- Subcontractors will provide necessary facilities to meet the needs of their employees.
- Subcontractor will provide adequate storage for equipment brought to the job. Rangeline is not responsible for subcontractor equipment.
- Fighting, gambling, possession of firearms, possession or use of alcohol or unauthorized drugs will be reasons for subcontractor removal from jobsite.
- Smoking is allowed in authorized areas only.
- All personal protective equipment will be worn on the job as hazards and/or the client dictate. At a minimum, hard hat, steel toe foot protection and safety glasses will be worn.
- Grinding shields will be worn when grinding or buffing.

- Splash goggles will be worn when handling chemicals.
- All vehicles operated on Rangeline Group or client property will be operated in a manner that reduces the chance for injury or property damage.
- Good housekeeping is mandatory.
- Subcontractors will provide first aid services for their employees.
- If friable asbestos materials are found at a jobsite, work will cease and this discovery will be reported to the Rangeline Group Supervisor. Do not disturb asbestos unless properly trained and the proper equipment is available.
- Fall protection is required anytime an employee is exposed to 6 feet fall hazard or more.
- Defective or damaged tools or equipment shall not be used.
- Tools and equipment shall be used for the purpose for which they were designed.
- Ground-fault circuit interrupters will be used for all 120-volt service.
- A competent person will inspect all work areas for safety hazards, report hazards to Rangeline Group if found, and assist in the correction of any hazard.
- Combustible materials and hazardous chemicals will be properly stored.
- Subcontractor will ascertain, before work begins, whether or not a work permit is required or special considerations are to be met.
- Compressed gas cylinders will be stored properly by tying back and installing caps on unused bottles.
- Care will be taken to minimize trip hazards.
- Equipment will not be fueled while it is hot.
- Cell phones will not be used when the vehicle is in motion.
- Subcontractors will provide fire extinguishers as the job situation dictates. Subcontractors will participate in lockout/tagout by applying their locking device, and by being available to remove the lock and supervise the subsequent start up.

Subcontractors will be aware of emergency procedures and must be capable of summoning emergency assistance.

All potential underground facilities will be marked and the location of each known before the ground is broken more than 6 inches.

Unless authorized in writing, subcontractors are not allowed to operate Rangeline Group equipment.

If a subcontractor does not completely understand the task at hand, he will stop and ask for further clarification from the subcontractor supervisor and then the Rangeline Group supervisor if enough information is not obtained.

Equipment will be chocked when parked on uneven terrain, and the emergency brake must be set.

Sparks, heat, flame or non-intrinsically safe equipment will not be introduced into areas that may have explosive or hazardous atmospheres. If sparks, heat, flame or non-intrinsically safe equipment must be introduced into these areas, a Hot Work Permit must be completed.

End Of Policy

Record Keeping

Documentation and record keeping is a critical component of any effective safety program. Furthermore, documentation is necessary to substantiate the training and other performance markers the company maintains to support the demands of federal regulations, and operator/client requirements.

OSHA Logs (OSHA 300 & 300A Logs)

OSHA logs are used to document work-related injuries, illnesses, and fatalities. Proper record keeping is paramount to maintaining accurate logs. Employees charged with the responsibility to maintain the company's OSHA logs must be properly trained on the federal recording protocols prior to assuming the responsibility.

Only recordable cases are added to the OSHA 300 Log. The employee responsible for maintaining the log must ensure that an injury or illness meets the following stipulations:

1. Injury or illness is work-related
2. Injury or illness is a new case (new injury/illness—not the result of a previous recordable)
3. Injury or illness meets one or more of the general recording criteria

Recordable cases must be investigated and documented within seven (7) calendar days of receiving information that a recordable injury or illness has occurred. An OSHA 301 Incident Report or other equivalent form must be completed within the same time period. (Follow the guidelines of the **Accident/Incident Reporting and Investigation** chapter of this manual while completing the investigation.)

At the end of the year, the employee(s) responsible for maintaining the OSHA 300 Log must complete the OSHA 300A Summary utilizing the information contained in the 300 Log. The OSHA 300A Summary must be posted from February 1st through April 30lh in a visible location such that all employees can view it. The posting must be in a conspicuous place where notices to employees are customarily posted. If the document is obstructed, tampered with or otherwise damaged during the allotted timeframe, it must be replaced.

All of the relevant injury, and illness information and documentation collected, including the OSHA 300, 301, and 300A Logs) must be maintained for at least five (5) years following the end of the calendar year that the incident occurred.

ALL OSHA LOGS (300,301, 300A) MUST BE MAINTAINED AS COMPLETELY AS POSSIBLE WITH THE INFORMATION AVAILABLE. EVERY EFFORT MUST BE MADE TO ENSURE THAT THE DOCUMENTED INFORMATION IS COMPLETE AND ACCURATE.

Additional Records

Below is a table of required records, minimum retention times, and inspection/audit frequencies. While Rangeline Group does not generate all of these records at this time, work situations may change that would require additional record retention.

The Safety Department, along with Human Resources, is responsible for generating and storing these records. These records shall be stored in a manner where there is no potential for damage.

Note: When Rangeline Group joins a client in completion of a work permit, the Rangeline Group Supervisor shall make an attempt to obtain a copy of the permit for record keeping purposes.

Bloodborne Pathogen Incidents and Exposures	Duration of employment + 30 years	As needed
Bloodborne Pathogen Training	3 years	As needed
CPR/1st Aid Training Records	3 years	As needed
CDL Driver Qualification File	Duration of employment + 30 Years	Annually
Confined Space Entry Permits	Current year + 1 Year	Annually
Confined Space Program Review	Current	Annually
Confined Space Training Records	3 years	As needed
Safety Data Sheets	Indefinitely	Annually
OSHA 5-in-l poster	Current	Annually
OSHA citations	Current/Hold Indefinitely	Annually if applicable
Hazard Communication Program	Current	Annually
Master Chemical List	Current	Annually
Hazard Communication Training Records	3 years	As needed
HAZWOPER Incident Management Plan	C current	Annually
HAZWOPER Training Records	3 years	Annually
Employee Orientation	Duration of Employment	As needed
Job Hazard Analysis (JHA)	Current + 6 months	As needed
Safety Meeting attendance	3 years	As needed
Safety Training Records	3 years	As needed
Vehicle Registration, Insurance	Current	As needed
Insulating equipment test documentation and certification	Life of Equipment	Annually
Electrical Safety Training	3 years	Annually
Emergency Alarm and Evacuation Procedures (Drills)	Current	Annually
Forklift Training Records	3 years	As needed
Daily Forklift Inspections	1 year	Daily
Lock Out/Tag Out training records	3 years	Annually
LO/TO program review	Current	Annually
Personal Protective Equipment Hazard Assessment	Current	As needed

PPE Training Records	3 years	As needed (such as change in hazards)
Respiratory Protection Program Evaluation	Current	Annually
Respiratory Hazard Assessment	Current	As needed
Respiratory Protection Procedures	Current	As needed
Respiratory Protection Training	3 years	As needed

Safety records are kept for the following reasons:

- Trend analysis
- Medical and health records
- Training documentation
- Audit requirements
- Legal requirements
- OSHA requirements
- Personal protective equipment requirements
- Client requirements

Required Records	Minimum Retention Period	Inspection/ Audit Frequency
Accident/incident reports	6 years (indefinitely)	As needed
Audiometric Tests	Indefinite	Annually
Dosimetry samples	Duration of Employment + 30 years	When a change occurs
Hearing Conservation Program	3 years	As needed
Sound Level Surveys	Indefinite	As needed
Location Diagram of Sound Levels	Current	As needed
Employee notification of Dosimetry results	Duration of Employment + 30 years	As needed
Employee exposure records (including monitoring, samples, medical records)	Duration of employment + 30 years	As needed
Bloodborne Pathogen Exposure Control Plan	Current	Annually
Bloodborne Pathogen Immunization/Declination Forms	Duration of employment + 30 years	As needed

Medical Evaluations	Duration of employment + 30 Years	Annually
Respirator Use Questionnaire	Duration of employment + 30 Years	As needed
Fit Tests	Current	As needed
Respirator Inspections	Current	Monthly
Grade D Breathing Air: 1. Purchased Air 2. Produced Air	1. 10 years 2. 10 years	1. Batch 2. Every 90 days or before each use
Hot Work Permits	Current, 1 - 6 months	As needed
NORM Survey	Indefinitely	As needed
H2S Training	3 years	As needed
H2S Medical Records	Duration of employment + 30 Years	As needed

End Of Policy

Incident Procedures and Emergency Response

Rangeline Group has established this program to outline the procedures to follow in the event of an accident, incident, or emergency. Accidents, incidents and emergencies are defined as injuries, releases or spills of company or client product, fires, vehicle incidents, property damage, weather related emergencies, or natural catastrophes. Accidents, incidents and emergencies are differentiated by the cause and magnitude of the event.

The following is a prioritized list of the objectives of a responder to an incident:

1. Reduce human loss and suffering
2. Minimize the loss of public or client property
3. Minimize loss of Rangeline Group property

Employee/Client/Visitor Injury Procedures

When an employee, client, or visitor is injured at a Rangeline Group worksite, the Rangeline Group supervisor is responsible for ensuring that first aid is administered, and, if necessary, the proper medical attention is obtained as quickly as possible. In addition, the supervisor must protect other employees and equipment from any resulting or potential hazard, and notify the Safety Dept, Rangeline Group management, and the appropriate client representatives. The supervisor is authorized to delegate these responsibilities in the event that he is an injured party, or his obligation to administer first aid prevents him from completing the subsequent tasks mandated by the incident response.

The supervisor must adhere to the following protocol while responding to an accident or emergency that involves an injury:

1. Go to the scene of the incident immediately. Bring first aid materials and a means to record the events.
2. Secure the area and administer first aid to the best of your ability.
3. Summon outside emergency services if necessary.
4. Gather evidence in an attempt to remedy the problem. Look for the underlying causes, such as unsafe conditions or unsafe practices. Proper equipment should be available to assist in conducting an investigation.
5. Collect a statement from the injured person and any witnesses to the accident. Stress the importance of gathering the facts and discourage employees and/or witnesses from trying to place blame or responsibility. Ask open-ended questions that encourage detailed answers and listen for additional information in the conversations around you because unsolicited comments often have merit. Initial identification of evidence might include a listing of people, equipment, and materials involved, and a recording of environmental factors such as weather, illumination, temperature, noise, and ventilation.
6. Encourage all employees to voice their ideas for preventing similar accidents.

7. Confer with interested persons about possible solutions.

8. Take photographs of the scene whenever possible.

9. Write the accident report giving complete, accurate accounts of the accident.

10. Follow-up with recommendations to ensure conditions are corrected. Individuals should be assigned responsibilities relative to corrective actions. Lessons learned should be reviewed and communicated. Changes to processes must be placed into effect to prevent reoccurrence of events.

Evidence from an incident, such as people, positions of equipment, parts, and papers must be preserved, secured, and collected through notes, photos, witness statements, flagging, and impoundment of documents and equipment.

Response to Product Spills

While working with or around any chemical, an employee must know what engineering controls, and safe work practices have been implemented for his/her safety, and what personal protective equipment is required while performing the job.

Safety Data Sheets will serve as the primary source of information regarding handling, spill, contact, and clean-up procedures.

Rangeline Group employees work around various chemicals while performing their job. A product release or spill is always feasible, so attention to safety and prevention is critical. These spills pose physical hazards (combustible liquid and/or gases), and health hazards (carcinogens, corrosives). Some spills require professionally trained responders (i.e. Hazwoper), so be certain to reference the appropriate SDS whenever there is a release of product.

Response to spills and releases should adhere to the following procedures (each situation will dictate different responses based on spill types/amounts, and these are general procedures):

1. Report all spills to clients and Rangeline Group immediately (degree of spill amount, reporting and related hazards are left up to the decision of client and management)
2. Summon emergency services per client and management directives.

3. Do not enter the contaminated area without respiratory and skin contact protection. Enter only if you have the appropriate training.

4. Do not try to rescue the person by holding your breath and entering the contaminated area.

5. Even with proper respiratory protection, do not enter a contaminated area without standby help.

6. As soon as the victim is in a safe area, personnel should conduct an assessment to determine if the victim is breathing and perform cardiopulmonary resuscitation (CPR) if needed.

7. Any employee who experiences significant exposure to any hazardous substance, either liquid or vapor, must report the incident to the supervisor immediately. The supervisor ensures that the safety department has been contacted, and Safety will initiate the applicable protocol for testing and medical response.

8. If toxic materials contact the skin or clothing, remove the contaminated clothing and refer to SDS for first aid procedures. Launder these clothes separately.

9. Clean up of spilled material is based on Safety Data Sheets and those persons conducting clean-up will be trained and equipped to do so.

10. Personnel should avoid ditches, bell holes, ravines, and other low-lying areas where vapors, fumes, or mists may collect.

11. If necessary, evacuation should be upwind and crosswind.

Response to Fires

Rangeline Group employees work in environments where there is a potential for fire. Due to this fact, response to fire situations and the reporting of these fires is necessary. **Note: Rangeline Group does not employ or train fire-fighter level individuals; therefore, fighting fires beyond the incipient stage is not allowed.**

1. Notify everyone in area to evacuate and go cross and upwind to a higher elevation.

2. Call emergency response as necessary or send someone to call for emergency response and have that person report back to you as to the status of arrival. Note: Fire departments/emergency response would rather show up to a situation under control than to one that is out of control.

3. Render first aid or summon for first aid assistance.

4. Gather fire suppression equipment. Note: Never fight a fire if there is no adequate firefighting equipment (the escape path could become blocked), or the fire is spreading beyond control. **Fight fires at the incipient (beginning) stage only. Do not attempt to extinguish a fuel source if the fuel source cannot be eliminated.**

5. Attempt to extinguish fire by aiming at base of fire and using a sweeping motion. Stay at least 4 to 6 feet away.

6. Never turn your back on the extinguished fire. Back away.

7. Stay in area to see if there is re-ignition.

8. If you are alone, and a fire situation occurs, immediately summon help before any other action is taken.

9. Document all actions and occurrences leading up to the fire and all actions taken after the fire started.

10. Have all fire suppression equipment recharged immediately.

Response to Vehicle Incidents

If you are involved in a vehicle incident:

1. Stop at once. Check for personal injuries and send or call for an ambulance if necessary. Do not leave the scene but ask for assistance.

2. Protect the scene. Set emergency signals to prevent further injury or damage.

3. Dial 911 regardless of severity. Secure assistance of a law enforcement officer whenever possible. Record Officers' name and obtain the police report information

4. Contact your direct report to inform them of the incident

5. Contact your Safety Dept to inform them of the incident

6. Record names and addresses of all witnesses and occupants of involved vehicles. Record vehicle license numbers.

7. Do not argue! Make no statement except to proper authorities. Sign only official police reports. Do not plead guilty or admit fault.

8. Complete accident report stored in vehicle to the best of your ability. .

9. Do not attempt to operate the vehicle. It may have damage of which you are not aware.

10. Assist the Safety Department in their report/investigation process as well as all required drug/alcohol testing.

    NOTE : You are not cleared for work until notified by the HR Department.

Response to Property Damage

If any company, public, private, or client property is damaged, follow these procedures:

1. Report the incident to a Supervisor/Management immediately. Even if you think the situation is not serious, the incident must still be reported.

2. Determine if damage is causing or will cause harm to persons and respond appropriately. (Example: If a fence is down and cows will get out and onto the road, then this is a situation that could cause harm to persons and does need immediate attention **or** you back over a pipeline riser and bend it slightly, potentially, the stress in the metal could cause line failure.)

3. Do not continue to operate equipment until it is deemed safe by a qualified and competent person.

4. Make repairs to the level you are competent for. Never bypass a safety measure or operate unsafe equipment.

5. Document all occurrences.

Response to Weather-Related Emergencies or Natural Catastrophes

1. Hurricanes

The Manager will monitor the phase alerts and assess the situation as the phase alerts are given. He/she will advise all personnel of the hurricane alert and designate responsibilities accordingly. Rangeline Group management will notify personnel if an evacuation is necessary.

a. A Phase 1 alert will be issued when a tropical storm or a hurricane is formed that could possibly affect area operations.

b. A Phase 2 alert will be issued when it appears that a tropical storm or a hurricane is headed in a direction that will pass through or near area operations.

c. A Phase 3 alert will be issued when it is apparent the hurricane will hit the area of operations, and it is necessary to shut down area operations and evacuate all personnel.

2. Tornadoes

Rangeline Group management will monitor the two-phase tornado alert system posted by weather agencies:

1. A Tornado Watch is issued when weather conditions are conducive to a tornado.
2. A Tornado Warning is issued when a tornado has been sighted in the area.

Rangeline Group Supervisors will assess the situation and notify personnel of the severe weather conditions and actions to be taken. All loose materials and tools should be moved inside or secured in place. Following a storm, all personnel must be accounted for. If injuries have been sustained, they must be attended to accordingly.

If a tornado is sighted, and it appears that it will come close or pass over a location, seek shelter if possible. If a shelter is not available, move away from the tornado's path at a right angle. If there is not time to escape, lie flat in the nearest depression, such as a ditch or ravine.

In buildings without basements, take cover in the smallest room with sturdy walls, or under heavy furniture, or a tipped-over couch or chair in the center part of the building. The first floor is safer than higher floors. If there is time, open windows partly on the side away from the storm's approach but stay away from windows due to debris and flying glass.

Mobile buildings, or buildings on blocks, are particularly vulnerable to overturning and destruction during strong winds and should be abandoned in favor of a pre-selected shelter, or even a ditch in the open.

Parked cars are dangerous during a tornado or severe windstorm; however, as a last resort, if no ravine or ditch is nearby, they may provide some shelter from flying debris to those who lay on the floorboard inside the car.

In preparation for storm season, battery-operated radios should be obtained in case of a power loss, related safety rules and procedures should be reviewed, and training on identifying an approaching tornado, and the subsequent change of work plans to remain near a shelter during a severe storm threat should be conducted.

3. Floods

Carefully determine the area affected by the high water. If possible, do the following:

a. Move equipment and materials to higher ground.

b. Sandbag areas where water can be diverted.

c. Monitor exits to be certain they are not blocked by floodwater.

When driving a vehicle, do the following:

a. Be cautious of obstacles and low spots hidden by the water.

b. Beware of low spots where water currents may be high enough to sweep a person or even a vehicle off the road.
c. Be cautious of driving through water high enough to kill an engine and/or damage a vehicle.
d. If necessary, use vehicles with high ground clearance to ferry personnel through high water. Be sure the water is not too deep to drive through.

Beware of equipment that is submerged, especially when there is a potential for electrical shock.

Be cautious of snakes, animals, and insects driven from their natural habitat by high water.

Flash Floods

If a flash flood is expected to occur and time permits, supervisors should coordinate the following activities:

a. Shut down the operations.

b. Evacuate all non-essential people out of danger area.

c. Secure all loose material, equipment, etc.

d. Move mobile equipment to higher ground.

e. Evacuate remaining people out of danger area

After a flash flood has hit the location, do the following:

a. Administer first aid to any injured people and arrange for medical assistance.

b. If a fire, explosion, equipment failure has occurred, follow appropriate procedures.

c. Survey and report damages.

4. Freezing Rain/Ice Storms

When driving in freezing rain or ice, do the following:

a. Minimize traveling until road conditions improve.

b. Be cautious of bridges and overpasses during icy conditions.

c. Watch for fallen power lines, tree branches, etc.

d. If it is necessary to cross a frozen bridge or overpass, reduce speed, approach straight on and drive straight across. Do not touch the brakes, turn the wheels, or accelerate while crossing.

When working in potentially icy conditions at a Rangeline Group jobsite, do the following:

a. Use salt or sand on slippery surfaces.

b. Be aware of the increase potential for icy conditions on elevated walkways, steps, and ramps, etc. Use salt or sand on these surfaces to minimize the potential.

5. Other Natural Emergency Conditions

Think through what must be done in the event of other natural emergency conditions and be prepared. Discuss emergency procedures and arrange communications, first aid, transportation, and other details before an emergency occurs.

End Of Policy

Emergency Action Plan

The emergency action plan addresses procedures to be followed by employees when there is an evacuation. It must specify who, if any, should remain to operate critical operations during an emergency evacuation. The plan should specify if no employees are to remain. The plan must address procedures to account for all employees after an evacuation.

The plan must contain contact information that will be provided to employees who need additional information pertaining to the plan or their respective duties.

The emergency action plan must state which method the company will use to notify employees of an emergency. The alarm system shall be distinctive and recognizable as a signal to evacuate the work area or perform actions designated under the emergency action plan. For those employers with 10 or fewer employees in a particular workplace, direct voice communication is an acceptable procedure for sounding the alarm provided that all employees can hear the alarm.

The employer must designate and train employees to assist in a safe and orderly evacuation of other employees.

The emergency action plan should be reviewed with an employee under the following circumstances:

1. When the plan is developed or the employee is assigned initially to a job
2. When the employee's responsibilities under the plan change
3. When the plan is changed

End Of Policy

Accident/Incident Reporting and Investigation

All incidents, no matter how minor, must be reported to a supervisor and the Safety Department immediately. Subcontractors must also comply with this requirement. “Immediately” is defined as within ten (10) minutes of the incident, or sooner if the situation dictates.

When an incident occurs, it must be reported in a specified manner. The reporting sequence must be posted.

The employer must verbally report required incidents to OSHA immediately or within 8 hours of their discovery base on the seriousness of the injury. Incidents must also be reported to the Owner Client as soon as possible or within 24 hours of the incident.

Incidents that are required to be reported to OSHA are work related incidents resulting in the death of an employee or the hospitalization of three or more employees.

Rangeline Group requires all incidents to be reported including injuries, spills, property damage, fires, explosions, line strikes and vehicle damage.

Rangeline Group implemented this program in order to establish a protocol for incident reporting and investigation. The Safety Department will be responsible for investigation (or delegating the investigation of) all accidents.

The goal of this program is to prevent future incidents by studying the information collected during investigations to determine a root cause and subsequent work practice or procedure changes necessary for safety.

Additionally, the investigation will be used to prepare the reports that are required by federal and state regulation, and our insurance provider. These reports are critical in establishing company liability.

In preparation for a proper incident investigation, proper equipment shall be immediately available such as pens/pencils, paper, tape measures and rulers where applicable, cameras, audio recorders where allowed, PPE, equipment manuals, barricade tape or flags, etc.

In order for the Accident/Incident Investigation Report to be effective, it must contain a detailed answer to the following questions:

1. What was the employee(s) doing?

2. Where was the employee when he/she was injured?

3. What happened — in detail? Avoid vague responses or statements.
4. What caused the accident? This will be answered in greater detail when a Root-Cause Analysis is completed.

5. Who was involved? What was the weather, illumination, temperature, noise and employee physical factors such as age, fatigue, medication and medical conditions.

6. What can be done to prevent a similar accident?

7. Employees' name
8. Employees' Hourly and Weekly wage
9. Employees' address, phone number, spouse's name and number of dependents
10. Employees' Supervisor
11. List of witnesses, and their written statements. These witnesses sign and date these statements.
12. What was the condition of the equipment involved?
13. What was the proper response to the situation, and could this be improved upon?
14. Did the Job Hazard Analysis list the situation that occurred as a potential hazard, and why didn't the method of protection from this hazard prevent the incident from occurring?

The information gathered in the Investigation Report will be utilized to develop a Root-Cause Analysis—the primary cause of an incident. Management may require the individuals involved in the incident to meet and discuss the incident. The entire incident scenario will be discussed and recommendations made.

All personnel involved in conducting an investigation shall be trained on interview techniques, ensuring unbiased testimonies, handling investigation documents, providing factual-only reports, etc.

The Safety Department will record all notes taken during the Root-Cause Analysis and make the final report available, with recommended actions and date of completion, to all affected employees. Depending on the seriousness of the incident, a lesson learned outline shall be prepared and discussed with the employees to prevent a reoccurrence.

All evidence acquired before, during and after an official investigation such as notes, people's names, reports, witness statements, applicable documents, etc. shall be preserved and secured by the safety representative.

Training

All personnel must be trained in their roles and responsibilities for incident response and investigation techniques. Training requirements relative to incident investigation and reporting should be identified. All training should be documented and kept on file.

Employees who could be first responders when an incident occurs should be trained and qualified in first aid techniques to control the degree of loss during the immediate post-incident phase.

End Of Policy

Restricted (Light) Duty/Case Management

Restricted duty provides employees who have experienced a work-related illness or injury with work during the time that they are unable to complete all of their regular job duties. Rangeline Group Management, based on the health care provider's input, will arrange restricted duty work to accommodate the needs of the company and the needs of the employee. While on restricted duty, Rangeline Group Management, and the healthcare provider will monitor the employee's progress.

At no time will the employee on restricted (light) duty exceed the physical limits established by the healthcare provider.

Proper authorization for restricted duty should be obtained in writing prior to an employee's starting any restricted duty work. All such medical correspondence will be maintained in the employee's file. Human Resources are responsible for sending to the employee a bonafide Offer of Employment that corresponds with the work limitations established by the healthcare provider. ***Whenever possible, restricted duty should be recommended over absence from work, unless the healthcare provider feels that any work in any capacity is not medically advisable.***

Restricted Work: Purposes and Benefits

Employees are our most valued assets. Their safety and well-being are a major concern for Rangeline Group Management. When our employees are injured or ill, it is our intent to assist them with a quick recovery and return them to meaningful employment as soon as possible.

To that end, a period of Restricted Duty work:

1. Minimizes the injury's impact on the employee and Rangeline Group
2. Promotes rapid recovery from injuries/illness
3. Provides a safe and timely transition back to work

The employee and company benefit when Rangeline Group can offer an injured employee meaningful temporary Restricted Duty:

The Employee:

1. Tends to recover more quickly.
2. Participates in some type of work activity as soon as he/she is medically able;
3. Experiences a smoother transition back to regular duty.
4. Feels improved self-esteem in spite of medical condition.
5. Maintains relationships with co-workers and management and.
6. Sees management's commitment to employee welfare.

Restricted Duty Offer/Refusal of Restricted Duty Assignment

The Employer:

1. Keeps a trained and experienced worker.
2. Reduces the costs associated with the loss of production and replacement of an employee.
3. Improves work ethic.
4. Promotes employee morale/security; and
5. Fosters better communications with employees.

Restricted Duty is recommended by Rangeline Group when:

1. The employee's medical condition temporarily prevents the employee from performing his or her full regular duties, including full-time work; or
2. The Rangeline Group physician:
    a. Believes the employee's condition is temporary and will probably improve with an appropriate amount of time and/or treatment.
    b. Feels that the maximum medical improvement has not yet been attained
    c. Has provided instructions for specific restrictions in writing to the employer

General Information - Guidelines

Rangeline Group will closely evaluate physician recommendations for Restricted Duty. The physician will re-evaluate all employees on Restricted Duty on a periodic basis to be established by the company and its Safety Department. Rangeline Group management and the physician will continuously review the appropriateness of continuing Restricted Duty. The following are some general guidelines about Restricted Duty:

1. Restricted work assignments are temporary and are intended to facilitate a return to regular duty. Restricted duty assignments are not intended or permitted to become permanent.
2. Only the healthcare provider can recommend permanent limitations, since these may impact employment (This is not generally done by the healthcare provider unless maximum medical improvement has been reached.)
3. Extension of Restricted Duty beyond 30 days should be based upon discussions with the healthcare provider and upper Rangeline Group management. (The advisability of extending the restrictions beyond 30 days may vary related to the medical condition/injury or manpower needs.)
4. Restricted Duty should be extended only when it is determined by the healthcare provider that the additional time would facilitate a return to full regular duties.

5. Restricted Duty extensions should not adversely affect the Department's operational goals or the objectives of the transitional work process.

6. Restricted Duty assignments must be offered to the employee as soon as he/she is released for Restricted Duty by the healthcare provider.

7. There is no set limit on the number of employees permitted to participate in Restricted Duty at any one time. However, multiple Restricted Duty assignments at any given time may impact company operations; consequently, limits on the number of employees, and the amount of time on Restricted Duty shall be at the sole discretion of Rangeline Group Management.

8. The healthcare provider's recommendations will be taken into consideration when offering the number of hours and days on Restricted Duty.

9. The assignment can be less than 40 hours per week but cannot exceed 40 hours per week.

10. The employee will get paid at his full customary rate while on Restricted Duty.

Communication Responsibilities of Employees and Supervisors

Employees are required to either arrive for work on time, or to notify their supervisor before the start of their shift, so that he has time to replace or cover the absent or tardy employee.

When an employee does not show up for work, he must call his supervisor the first day that he fails to come to work and tell the supervisor the reason, explicitly noting if the reason is a work-related injury or illness. He or she must contact Rangeline Group before going to the healthcare provider for work-related injuries or illnesses. If an employee is absent and does not call by noon, the supervisor should attempt to contact the employee by phone. If the employee informs his Supervisor that his absence from work is due to a work-related injury, the Rangeline Group Supervisor shall immediately contact the Safety Department to coordinate the medical attention for the injured employee.

Supervisors should communicate with employees who are on Restricted Duty status on a regular basis.

Supervisors and the safety department must document all information related to the employee's injury or illness.

The Supervisor will attend meetings with Safety and Rangeline Group HR Department to discuss the Restricted Duty cases and to develop pro-active plans to return the employee to regular duty. The injured employee should attend these meetings and give thoughts about his ability to return to work, date of next doctor's appointment, and the need for modification of duties to support progress toward return to full duties.

Those employees who are not working due to a work-related injury must be contacted by their immediate supervisor weekly. These contacts must be documented. Supervisors will review the employee's condition with the employee and verify that the employee's needs are being met and discuss plans to return to work (restricted or regular duty). Furthermore, the Supervisor will secure the employees' ideas on recovery and return-to-work opportunities.

Supervisors should review Restricted Duty assignments with the employee weekly to:

1. Review appropriateness of the work assignment
2. Reinforce safe work behaviors
3. Request revisions in the Restricted Duty from the healthcare provider if it seems relevant
4. Provide appropriate communications with employee's supervisor when the employee is working in a different Rangeline Group work area

Restricted Duty Assignments

Supervisors and Safety should contact Rangeline Group management as soon as they are aware that a worker is to go on Restricted Duty.

Employees that are on Restricted Duty are to be assigned to the same general work shift, and to the same workweek that they were assigned to prior to their injury. If Restricted Duty is not available in the same work area, management will attempt to provide an alternative.

No overtime is allowed for Restricted Duty participants.

The assignments must be designed to provide meaningful tasks to the employee, assist with the employee's recovery, enhance productivity and reduce cost.

Restricted Duty is not	Restricted Duty is
Punitive	Productive and necessary
Permanent	Temporary
A promotion	Supervised
A "Job"	Rotational/variable tasks

Restricted Duty Offer/Refusal of Restricted Duty Assignment

After the employee is seen by the healthcare provider and is given the appropriate Restricted (Light) Duty paperwork, they must provide a copy to the safety department, HR department and their immediate Supervisor.

While the company has the option of limiting the type and amount of Restricted Duty based on feedback from the healthcare provider and according to operational needs, a company request for an employee to report to work in a specific capacity (e.g., in a "restricted duty capacity" or a "normal duty capacity") is a fundamental job requirement.

As such, employees are required to comply with the request to report for work in order to maintain his or her employment. Failure to report on time, to work in the requested capacity, or to perform the designated duties could result in the termination of employment.

Job Hazard Analysis (JHA)

The purpose of the Job Hazard Analysis (JHA) is to prevent accidents by identifying existing and potential hazards, and taking actions to eliminate, or reduce them to an acceptable level before a job begins.

The goal is to:

1. Identify the potential hazards
2. Identify appropriate methods to reduce or eliminate the hazards
3. Fulfill requirements of the Customer
4. PPE Hazard Assessment

JHAs must be completed before each job (routine or beyond routine) is begun. Furthermore, if the major work scope changes, another JHA will be completed.

Every employee (Rangeline Group or client) will participate in the completion of the JHA. When the client does not provide a JHA form to complete, Rangeline Group will make theirs available and request that the client representative(s) participate.

Work permits may accompany the JHA. Examples of these include Hot Work Permits, Confined Space Entry, and Lockout/Tagout.

Who should fill out a JHA?

1. Job Foreman should lead JHA team meeting
2. team members
3. Employees experienced in performance of the job
4. Technical experts (mechanics, engineers, etc.)
5. Customer representatives
6. Personnel with no experience in performing the job (often bring unique insight)

Blank JHA forms are available in the office. Rangeline Group employees will be trained on JHA procedures during New Hire Orientation.

End Of Policy

Environmental Responsibilities and Training

Rangeline Group is dedicated to the protection of the environment. Rangeline Group is committed to fulfilling the moral obligation we all have to protect the environment. Furthermore, Rangeline Group will meet or exceed all regulatory and client requirements. Damage to the environment is not a short-term, but rather a long-term problem.

Employees will be taught the environmental regulations and pollution prevention practices that are applicable to their operating responsibilities. Employees are expected to act on their knowledge by performing their job in a way that complies with regulatory requirements and company policies, standards, guidelines, and procedures.

- Pollution control equipment must be maintained in proper working order.
- Seals on packing glands, flanges and other connections must be maintained in good condition to decrease the amount of gases that escape from worn seals.
- Consider nuisance impacts such as odors, smoke and dust and improve as appropriate.
- Rangeline Group will comply with all client air emission requirements.
- All chemicals will be stored and disposed of properly. All chemical containers will be properly labeled.
- Drums or storage areas will be protected from rain and run off.
- Drip pans will be used to catch any leaks. Leaks will be repaired. Drip pans will be emptied until leaks are repaired.
- Any and all protected plant and animal wildlife will be protected from industrial or other development activities. It is illegal to harm, harass, feed, pursue, wound, capture or possess an endangered species in any way. Rangeline Group will refer to these protection parameters as provided by clients.
- Plants, animals and artifacts, including but not limited to arrowheads, rocks and fossils, must not be removed from leases.
- Do not allow fuel/oils to leak from vehicles. If this does occur, clean up immediately. If a reportable amount per client requirements, report appropriately.
- All trash and liter will be collected and disposed of properly. Do not let trash become free and blow around.
- Pesticides and herbicides will be applied per manufacturer requirements. These chemicals will not be applied during high wind or rain events. Dispose of pesticide and herbicide containers per manufacturer requirements.
- Do not damage retainer walls around tank batteries. If this is necessary, the wall must be rebuilt to original condition before the task is considered complete.

- All drainage and sump systems must be regularly inspected.
- Perform routine visual inspections of all production equipment for leakage or evidence of corrosion, vibration, excessive wear or other conditions such as erosion that could lead to the development of a leak or release. Include wellheads, flow lines and production and storage vessels in inspections.
- Rangeline Group will follow all client SPCC (Spill Prevention and Countermeasure) Plans. The Rangeline Group Supervisor will ask client representatives about any special procedures needed for these plans.
- Rangeline Group will assist in client spill investigations and reporting to the best of their ability.
- The first person to become aware of a spill will try to stop the spill if can be done so safely. Rangeline Group will approach any spill cleanup with the proper training, proper containment equipment and applicable personal protective equipment.
- Rangeline Group employees must be aware of NORM-contaminated wastes (Naturally Occurring Radioactive Materials). Because Rangeline Group does not own any process that produces this type of waste, Rangeline Group must rely on client information about possible exposures.
- Rangeline Group employees will never remove contaminated or potentially contaminated products or waste from any clients' property. Rangeline Group will assist the client in contacting those companies who are licensed and trained for contaminated waste removal.

Rangeline Group will follow all Wetlands requirements as found within the Clean Water Act.

Rangeline Group clients must inform Rangeline Group management and employees of these types of environmental considerations.

End Of Policy

Short Term/Inexperienced Worker Program

Rangeline Group will attempt to hire experienced employees for all positions but will employ both short-term and inexperienced workers. Short term and inexperienced workers may have minimal work experience, and their minimal experience makes them a higher safety risk. Because these employees are a higher risk, the following procedures have been developed to ensure that short-term and inexperienced workers do not suffer an injury or injure someone else.

Rangeline Group will never place an employee in a situation where he or she is not trained and equipped to work proficiently and safely.

Rangeline Group defines a "short term" worker as: An employee that is hired for a short duration or a temporary job and will discontinue work after the job is completed. The worker may or may not have sufficient field experience. (6 months or more)

Rangeline Group defines an "inexperienced worker" as: An employee with less than 6 months field experience in their scope of work. The highest risk employee would be both inexperienced and short term.

Requirements for Rangeline Group Short Term/Inexperienced Workers

1. At the New Hire Training session, the person conducting the New Hire Orientation will ascertain anticipated work duration and experience.
2. The new employee will be given yellow hard hat to distinguish either short term and/or inexperienced. AKA Short Service Employee
3. Inexperienced /short term workers will be assigned a mentor (commonly the Supervisor)
4. The Mentor is responsible for short term/inexperienced worker job assignments and on-the-job training/direction.
5. The Mentor, based on client requirements, notifies the client that a short term/inexperienced worker is on site.
6. All JHAs conducted on the jobsite will include mention of short term and inexperienced workers and the additional precautions that will be taken.
7. Topics for the JHA should include experience level of the crewmembers, the "mentoring process", and ways to minimize health, safety, and environmental exposure with inexperienced workers in the crew. While some workers do not like this additional attention, all persons must "crawl before they walk".
8. No work may be initiated by the short term and/or inexperienced worker unless the Mentor has given exact job completion instructions and both the employee and the Mentor are satisfied that work will be done safely and proficiently.

9. Short term/inexperienced workers are encouraged to ask questions about their work and to make suggestions. As with all Rangeline Group safety initiatives, the “newest guy on the job” can shut the job down for safety concerns or questions.

10. All Short Term/inexperienced Workers will attend all client required training before any work is done on a client facility. The Mentor is responsible for asking the client representative for this training.

End Of Policy

Drug, Alcohol, and Weapons (Substance Abuse Program)

Purpose of the Policy

Rangeline Group has established a drug, alcohol, and contraband policy for the following reasons:

1. To assist in providing a safe and healthy working environment for our personnel.
2. To protect our property and the property of our clients,
3. To cooperate with our clients in their efforts to provide safe and efficient operations, and
4. To project a positive image within our community.

Policy Statement

The use, possession, concealment, transportation, promotion, distribution, or sale of the following items or substances by any Rangeline Group personnel or by any personnel of a Rangeline Group subcontractor is prohibited on all company premises:

1. Illegal drugs, controlled substances (including trace amounts), look-alike drugs, designer drugs or any other substance which may affect the human body like a narcotic, depressant, stimulant, hallucinogen or cannabinoid.
2. Unauthorized intoxicating beverages.
3. Firearms, weapons, explosives, and ammunition.
4. Unauthorized items: Stolen property, drug paraphernalia, and contraband.
5. Unauthorized prescription drugs.

Working under the influence of any drug is strictly prohibited. Even trace amounts of a drug in an employee's circulatory system are grounds for immediate termination. Remember, what you do at home can and will affect what you do at work.

"Company premises" is defined as any location at which work is performed by Rangeline Group Management, or one which is assigned to Rangeline Group for its use by a client or another contractor, including parking lots and storage areas. Automobiles, trucks and any other vehicle or piece of equipment, whether company-owned or leased, that will be operated in any capacity at a Rangeline Group location (as defined in this paragraph) is included in this definition.
No prescription drugs shall be brought on company premises by any person other than the person for whom the drug is prescribed by a licensed medical practitioner, and shall be used only in the manner, combination and quantity prescribed. Any employee who is using prescription drugs under a doctor's order must notify his supervisor of the identity and dosage of such prescription drugs prior to beginning work. The employee shall also authorize the company to contact his treating physician to determine if the prescription drug or medication produces side effects, which may be hazardous to the employee's work activity. Rangeline Group reserves the right to consult with an independent physician to determine the effects of a prescription drug or medication on an employee's ability to work safely and productively. If an employee fails to

inform his supervisor that he or she is taking a prescription medication, disciplinary action will be taken. These policies will be implemented in a manner that will comply with all applicable federal and state laws.

Safety of Workforce - Searches, Inspections, and Drug Testing

In order to ensure the safety of the workplace and the workforce, each employee, as a condition of continued employment may be required upon request of company supervisory personnel to:

1. Submit to a search of any vehicle brought onto or parked on company premises or on any premises on which the company employees are performing work.

2. Submit to a search of any pocket, package, purse, briefcase, toolbox, lunch box, clothing, container or materials brought onto company premises or on premises where the company employees are performing work.

3. Submit to searches and inspections of desks, fde cabinets, or work areas.

4. Each employee, as a condition of employment, may be required to submit to blood, urine or other medically approved drug testing procedures to ensure a drug and alcohol-free work environment. The drug and alcohol testing may be utilized in, but is not limited to, the following circumstances:

    1. Pre-Employment
    2. Post-Accident
    3. Random testing
    4. Reasonable Suspicion
    5. Discretionary Randoms
    6. Return-to-Duty
    7. Follow-up

The results of physical examinations and medical testing are confidential and will only be shared with the employee, and those managers who will determine what subsequent action must be taken, if any.

Effective Dates

The provisions set forth in this policy will be implemented and effective immediately. Each person will be given an opportunity to read the related polices and will sign an acknowledgment that he/she understands the established requirements. Copies will be made available to all employees.

Disciplinary Action

An employee who refuses to submit to a search or inspection, a drug screen, or other approved medical testing procedure will be subject to disciplinary action up to and including discharge.

Furthermore, if a detectable quantity of any illegal drug, controlled substance, non-prescription medication, or other substance that has a similar effect on the human body is discovered, disciplinary action, up to and including discharge, will be taken.
Employees who fail a drug screen may participate in an SAP (Substance Abuse Program) to maintain employment, however this is at management's discretion only.

Compliance through the SAP is mandatory to maintain employment if the employee is allowed to participate in such programs.

Compliance with these policies and programs is a condition of employment. The proper law enforcement authorities will be notified whenever necessary or applicable.

End Of Policy

Preventive Maintenance

The purpose of the Preventive Maintenance program is to identify and correct potential problems before they become failures. Preventive maintenance will also help to maximize the life span of our equipment.

Rangeline Group will maintain an inventory of all machinery and equipment. This inventory list will be kept current with any additions and deletions of equipment.

Rangeline Group will create a file for each piece of equipment that is included in the preventive maintenance programs. The file should contain any applicable records regarding the use, maintenance, and ownership of the equipment. Maintenance must be documented, and the records will be retained for the life of the machinery or equipment.

A preventative maintenance schedule will be established for each piece of equipment that is covered by this program. The preventive maintenance schedule must comply with the manufacturer requirements, and must incorporate considerations for the industry standards, and the environment the equipment will be operated in. For example, certain geographical and/or climate conditions may necessitate service more frequently than the manufacturer's recommendations.

Equipment and machinery operators are expected to inspect equipment prior to use. If an operator discovers a problem, the defective equipment must be removed from service, locked and or tagged out-of-service appropriately, and the problem must be reported to a supervisor.

The equipment cannot be used until all necessary repairs are made, or the defective components are replaced.

End Of Policy

Bloodborne Pathogens

Purpose

The purpose of this program is to prevent Rangeline Group employees from being exposed to bloodborne pathogens, to minimize the risk of exposure, where there may be a potential for exposure to a bloodborne pathogen through an Exposure Control Program (ECP), and to assure compliance with 29 CFR 1910.1030.

Responsibilities

It is management's responsibility to implement and enforce this program. It is the responsibility of all employees to comply with this program and encourage their peers to do the same. Compliance with this program is mandatory, and employees are obligated to report all violations.

Employee Involvement

Employees are encouraged to offer suggestions for the improvement of this and any safety program; suggestions should be submitted to the Rangeline Group corporate office, either by the employee or his/her supervisor.

Rangeline Group welcomes all suggestions because it is committed to creating a safe workplace for its employees. A safe and effective bloodborne pathogen exposure prevention and control program is an important component of the overall safety plan.

Covered Employees

If an employee is trained in first aid and designated by Rangeline Group as responsible for rendering medical assistance as part of his/her job duties, that employee may have occupational exposure to bloodborne pathogens and is therefore covered by the Bloodborne Pathogen Standard, 29 CFR 1910.1030.

Occupational Exposure means reasonably anticipated skin, eye, mucous membrane, or other contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

First Aid Training

First aid trainers are responsible for making sure that employees are trained in bloodborne pathogen hazards and controls at the time the first aid training is provided. Training should include:

- Symptoms of bloodborne diseases
- Modes of transmission of bloodborne pathogens
- Recognition of tasks that may involve exposure
- Use and limitations of methods to reduce exposure, for example, use of plastic gloves, and other personal protective equipment (PPE)
- Types, use, location, removal, handling, decontamination, and disposal of PPE
- The basis of selection of PPE

- Hepatitis B vaccination efficacy, safety, method of administration, and benefits
  Exposure

Control Plan (ECP)

This document serves as the written procedures Bloodborne Pathogens Exposure Control Plan (ECP) for Rangeline Group Management. These guidelines provide policy and safe practices to prevent the spread of disease resulting from handling blood or other potentially infectious materials (OPIM) during the course of work.

This ECP has been developed in accordance with the OSHA Bloodborne Pathogens Standard, 29 CFR 1910.1030. This plan is made available to all employees in the Employee Handbook in a reasonable time, place and manner. Each employee is given this handbook at time of hire and again as revisions are made. The purpose of this ECP includes:

- Universal Precautions procedures will be observed at all times: All body fluids will be considered potentially infectious.
- Eliminating or minimizing occupational exposure of employees to blood or certain other body fluids
- Complying with OSHA's Bloodborne Pathogens Standard, 29 CFR 1910.1030
- Assuring adequate protection for those employees who are designated first aid responders

Exposure Determination

Designated first aid responders may incur occupational exposure to blood or OPIM. The exposure determination is made without regard to the use of personal protective equipment (i.e., employees are considered to be exposed even if they wear personal protective equipment).

Work Practice Controls

Work practice controls shall be used to eliminate or minimize exposure to employees, including:

- The appropriate PPE shall be made available to all employees at no cost to the employees. Rangeline Group will ensure that the appropriate PPE in the appropriate sizes is distributed. PPE will be cleaned, laundered and properly disposed of as needed. PPE shall be used unless employees temporarily declined to use it under rare circumstances. Rangeline Group will replace or repair PPE that is damaged to maintain its effectiveness.
- All equipment or environmental surfaces shall be cleaned and decontaminated after contact with blood or other infectious materials
- Removing contaminated PPE as soon as possible

- Cleaning and disinfecting contaminated equipment and work surfaces with a solution of ¼ cup chlorine bleach per gallon of water
- Thorough hand washing with soap and water immediately after providing care or provision of antiseptic towelettes or hand cleanser where hand washing facilities are not available
- Use of leak-proof, labeled containers for contaminated disposable waste or laundry
- Barricading exposed areas

Hand washing Facilities

Hand washing facilities are normally available to employees who have exposure to blood or OPIM.

When circumstances require hand washing and facilities are not available, either an antiseptic cleanser and paper towels or antiseptic towelettes shall be provided. Employees must then wash their hands with soap and water as soon as possible.

Handling Regulated Wastes

When handling regulated wastes, the procedures detailed below shall be followed:

- Placed in containers which are closeable, constructed to contain all contents, and prevent fluid leaks during handling, storage, transportation, or shipping
- Labeled or color coded and closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.
- Identified with the wording, "Potential Bloodborne Pathogen"

Note: Disposal of all regulated waste is in accordance with applicable Unites States, state and local regulations.

Handling Contaminated Laundry

Laundry contaminated with blood or OPIM shall be handled as little as possible. Such laundry shall be placed in appropriately marked (biohazard labeled, or color-coded red bag) bags at the location where it was used. Such laundry shall not be sorted or rinsed in the area of use.

Hepatitis B Vaccination Program

Hepatitis B vaccination

Rangeline Group offers: the Hepatitis B vaccine and vaccination series to all employees who have had an occupational exposure to bloodborne pathogens; and post exposure follow up to employees who have had an exposure incident.

All medical evaluations and procedures including the Hepatitis B vaccine and vaccination series and post exposure follow up, and prophylaxis shall be:

- Made available at no cost to the employee

- Made available to the employee at a reasonable time and place
- Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional
- Provided according to the recommendations of the U.S. Public Health Service

Hepatitis B Vaccine Declination

The vaccination must be offered to the worker within 10 days of the initial assignment to a job where occupational exposures exists. Should the worker decline the vaccine, it must be documented via the " Hep B Vaccine Declination" form.

Post-Exposure Evaluation and Follow-Up

All exposure incidents shall be reported, investigated, and documented via the Rangeline Group Management accident investigation process. When the employee is exposed to blood or OPIM, the incident shall be reported to the Rangeline Group Safety Department. When an employee is exposed, he or she will receive a confidential medical evaluation and follow-up, including at least the following elements:

- Documentation of the route of exposure, and the circumstances under which the exposure-occurred
- Identification and documentation of the source individual, unless it can be established that identification is infeasible or prohibited by state or local law
- The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity.
- When the source individual's consent is not required by law, the source individual's blood, if available, will be tested and the results documented
- When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated
- Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual

Collection and testing of blood for HBV and HIV serological status shall comply with the following:

- The exposed employee's blood shall be collected as soon as possible and tested after consent is obtained
- The employee shall be offered the option of having their blood collected for testing of the employee's HIV/HBV serological status. The blood sample shall be preserved for up to 90 days to allow the employee to decide if the blood should be tested for HIV serological status

All employees who incur an exposure incident shall be offered post-exposure evaluation and follow-up according to the OSHA standard.

The healthcare professional responsible for the employee's Hepatitis B vaccination shall be provided with the following:

- A copy of 29 CFR 1910.1030
- A written description of the exposed employee's duties as they relate to the exposure incident
- Written documentation of the route of exposure and circumstances under which exposure occurred
- Results of the source individuals blood testing, if available
- All medical records relevant to the appropriate treatment of the employee including vaccination status

Rangeline Group shall obtain and provide the employee a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation. The healthcare professional's written opinion for HBV vaccination shall be limited to whether HBV vaccination shall be indicated for an employee, and if the employee has received such vaccination.
The healthcare professional's written Opinion for post-exposure follow-up shall be limited to the following information:

- A statement that the employee has been informed of the results of the evaluation
- A statement that the employee has been told about any medical conditions resulting from exposure to blood or OPIM which require further evaluation or treatment

Note: All other findings or diagnosis shall remain confidential and shall not be included in the written report.

Recordkeeping

Records Maintenance

First aid and other bloodborne training records shall be maintained for three years from the date of training. The following information shall be documented:

- The dates of the training sessions
- An outline describing the material presented
- The names and qualifications of persons conducting the training
- The names and job titles of all persons attending the training sessions

Medical records shall be maintained in accordance with OSFIA Standard 29 CFR 1910.1020. These records shall be kept confidential and must be maintained for at least the duration of employment plus 30 years. The records shall include the following:

- Employee's name and social security number
- A copy of the employee's HBV vaccination status, including the dates of vaccination
- A copy of all results of examinations, medical testing, and follow-up procedures
- A copy of the information provided to the healthcare professional, including a description of the employee's duties as they relate to the exposure incident, and documentation of the routes of exposure and circumstances of the exposure

Availability

All employee records shall be made available to the employee in accordance with 29 CFR 1910.1020 and to the Assistant Secretary of Labor for the Occupational Safety and Health Administration and/or the Director of the National Institute for Occupational Safety and Health upon request.

Transfer of Records

Medical records must have written consent of employee before being released. Rangeline Group
Management will comply with the requirements involving transfer of records set forth in 29 CFR 1910.1020(h). If bloodborne pathogen exposure records cannot be maintained for the prescribed period, the Director of the NIOSH shall be contacted for final disposition.

Labels and Signs

All containers of regulated waste used for storage, transport or shipping of potentially infectious materials shall be clearly marked with a warning label. This warning label shall be Rangeline Group Management orange or orange-red with lettering or symbols in a contrasting color.

Wherever applicable, red bags or red containers may be used instead of the warning label.

The Safety Director or his designee is responsible for ensuring that all containers are properly labeled at all times.

Individual containers of infectious materials that are placed in labeled containers for storage, transport or shipping need not be individually labeled.

Training will be provided to employees as follows:

- At the time of initial assignment to tasks where occupational exposure may take place.
- At least annually thereafter.

Disciplinary Program

INTRODUCTION

Rangeline Group wants every employee to voluntarily comply with all company policies, and procedures. At times employees do not perform as required. This program has been developed to help employees understand the importance that RANGELINE GROUP places on the need to provide each employee a safe and healthful workplace. Failure of an employee to follow established safety and health procedures not only potentially exposes the employee to hazards that could result in an injury but could also result in the injury of other employees.

POLICY

RANGELINE GROUP has developed a disciplinary policy that applies to the safety and health program of this company. The disciplinary policy will be a tool to ensure enforcement of the rules and procedures for a safe and healthy working environment. The disciplinary policy applies to all employees of this company

IMPLEMENTATION PROCEDURES

Managers and supervisors are responsible for the enforcement of this program. Following a safety violation, the supervisor or manager will meet with the employee to discuss the infraction and inform the employee of the rule or procedure that was violated and the corrective action to be taken.

The following types of safety violations are noted:

Verbal Warnings

Management or supervisors may issue verbal warnings to employees that commit minor infractions or violations of the safety rules or safe work practices. Continued violations or verbal warnings will lead to more stringent action.

Written Warnings

Management or supervisors may issue written warnings for the following:

- repeated minor safety rule violations or procedures.
- single serious violations of a rule or procedure that could have potentially resulted in injury to themselves or another employee or could have caused property damage
- activities that could potentially result in injury or property damage.

Written warnings are intended to protect employees from excessive disciplinary action. Disciplinary action is not to be used to punish employees, only to protect and correct them. If an employee receives a written warning, the employee must immediately acknowledge receipt by signing the warning. If they disagree with the warning, they should note this on the warning or ask the supervisor to note their disagreement.

VIOLATIONS ARE CLASSIFIED ACCORDING TO THEIR SERIOUSNESS:

Group A

1. Theft or other acts of dishonesty.
2. Immoral or indecent conduct.
3. Falsification of any Company record.
4. Insubordination or flagrant disobedience.
5. Drinking or possession of alcohol or unprescribed drugs during working hours.
6. Assault, threat, or coercion in any connection with Company business.
7. Willful destruction or damage to Company property.
8. Commission of any felony.
9. Disclosing confidential information without authorization.
10. Violation of safety measures endangering life, safety or health of others.
11. Operating a company vehicle or equipment under the influence of drugs or alcohol.

Group B

1. Negligence or carelessness resulting in damage to Company property.
2. Violation of safety measures endangering life, safety or health of others.
3. Failure to use proper fall protection.
4. Not following hot work procedures, P.P.E. and work permits.
5. Not following excavation procedures, access and egress, cave in protection.
6. No locates for underground utilities when digging.
7. Not following lock out tag out procedures.
8. Not following confined space procedures.
9. Blatant misuse of ladders
10. Abusive conduct or discourtesy toward customers, employees, or others.
11. Reporting to work intoxicated or under the influence of drugs.
12. Not following equipment / material installation procedures (hot bolting / not following torque specs

Group C

1. Misuse of time during working hours.
2. Failure to conform to work schedule
3. Specific acts of inefficiency or carelessness
4. Smoking in unauthorized areas on Company property or customer’s properties.
5. P.P.E. violations, hard hat, safety glasses, gloves, reflective vests etc.
6. Rigging violations, slings, chains, overloading or not using proper equipment. Working with damaged lifting equipment.

7. Failure of inspections, daily walk around on vehicles and equipment. Equipment, vehicle and tool violations. Not reporting tool or equipment deficiencies.
8. Failure to wear seatbelts in company vehicles, or not using seat belts on equipment that requires their use.
9. Unexcused absence.
10. Excessive absenteeism or tardiness, regardless of cause.
11. Leaving work without permission.
12. Lack of insurability.
13. Malicious gossip or derogatory attacks on the Company or fellow employees.
14. Texting and Driving in a company vehicle or equipment
15. Operating a company vehicle without a seat belt.
16. Altering of the Vehicle Cameras up to and including
    a. Blocking the camera
    b. Altering the view of the camera
    c. Speeding in a company vehicle

This is not an all-inclusive listing. There may be other items that would necessitate disciplinary action. Any disciplinary action will be judged on its own character, and at the sole discretion of Company management.

TABLE OF DISCIPLINARY ACTIONS			
Group	**1st Offense**	**2nd Offense**	**3rd Offense**
A	Discharge and prosecution if applicable		
B	Written warning, two day or twenty-hour suspension	Written warning, four day or forty-hour suspension	Discharge
C	1st written warning	2nd written warning	Two day or twenty-hour suspension.

Violations will be recorded on an annual basis. January 1st to December 31st.

The Company reserves the right to modify disciplinary action. The specific action taken will be determined based on the severity of the problem and will be handled on case-by-case basis.

Disciplinary Leave

Supervisors may recommend, and management may institute, disciplinary leave for the above reasons and the following:

- a single serious violation of a rule or procedure that results in injury to an employee or property damage
- repeated violations, non-conformance to safety rules or procedures.

Termination

Any employee may be terminated for repeated violations or a single serious violation.

Documentation

RANGELINE GROUP will conduct periodic inspections of work areas to ensure compliance with safety rules and policies. Violations of company rules or safety rules, regulations or procedures will be documented by filling out a report on the employee. The report will state the type of violation and corrective action taken. The employee must read and sign the report acknowledging that they understand the seriousness of the violation.

End Of Policy

Assured Grounding / GFCI

This section addresses the safe working practices and the hazards faced by Rangeline Group employees who perform work on exposed energized and de-energized parts or employees who come near enough to be exposed to the electrical hazards they present. Safe work practices will be employed to prevent Rangeline Group employees from electric shock or other injuries resulting from either direct or in-direct electrical contacts when work is performed near or on equipment that may be energized. Rangeline Group employees who face the risk of electric shock but are unqualified will be trained and familiar with electrically related safety practices. Employees will be trained in safety related work practices that pertain to their respective job assignments as well as clearance distances.

1. Only a qualified electrician will perform electrical work or repairs.

2. Electrical components will be locked and tagged out before they are worked on except when necessary to locate a definite problem and then only qualified electricians perform this work. Conductors and parts of electrical equipment that have been de-energized but not locked or tagged out should be treated as live parts.

3. While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been de-energized, the circuits energizing the parts shall be locked out or tagged out or both.

4. Live electrical equipment and components will not be worked on without proper nonconductive tools.

5. AC light plants will be grounded immediately when set on location. All other skids with electrical power will have properly sized grounding conductors connected to the generator skid.

6. Switches will never be thrown “in” or “out” under loaded circuit. All lighting fixtures shall be kept in good repair. Broken or burned-out bulbs will be replaced as soon as possible, and vapor proof globes and guards will be kept in place over lights.

7. Drop cords and lights will have metal guards surrounding them unless this metal guard can become conductive.

8. All electrical cables will be protected from physical damage. Damaged or cut cables will be repaired, spliced, or replaced as soon as possible. Broken or defective portable cables, such as extension cords, will be cut to shorter length or replaced.

9. Electrically powered hand tools will not be equipped with a trigger locking device for continuous running, and all should be properly grounded, or of the double insulated U.L. approved case design.

10. Fuse pullers will be available at all times for changing electrical fuses. Periodic checks for proper circuit grounds of all electric outlets will be performed.

11. All high voltage panes (above 440 volts) will be clearly marked **"DANGER- HIGH VOLTAGE."**

13. Electrical apparatus and areas near electrical equipment will not be washed down with water.

14. Electrical hand tools will not be used while standing in water or outside during foul weather conditions.

15. Personnel rescuing a victim of electrical shock will first switch off the power causing the shock. If this is not possible, attempt to pull the victim away from contact with the live conductor using a dry stick, a dry rope, or other non-conductive material.

16. Jewelry and clothing that are conductive shall not be worn unless they are rendered nonconductive by covering, wrapping or other insulating means.

17. Any vehicular or mechanical equipment that is capable of having its moving parts or its structure elevated near overhead lines, will keep a clearance of at least 10 ft for lines containing 50kv.

    a. **IF WORK IS WITHIN 10 FEET OF POWERLINES, <u>WORK MUST BE STOPPED .</u>THE SAFETY DEPARTMENT, SUPERINTENDENT OR OPERATIONS MANAGER AND OTHER MANAGEMENT LEVEL WORKERS MUST BE NOTIFIED PRIOR TO WORK CONTINUING TO ENSURE SAFE DISTANCES ARE MET**

18. When working in confined spaces where electrical hazards may exist, the employer is responsible for providing the proper protective equipment. The employee will use protective shields, protective barriers or insulating materials as necessary to avoid contact with these parts.

19. Unless properly illuminated where Rangeline Group employees can perform the job safely, employees may not enter a confined space containing energized parts.

20. In the event that an employee must handle long dimensional conductive objects in areas with exposed live parts, the employer shall institute safe work practices to minimize the hazard. Examples of safe work practices include material handling techniques.

21. All portable electrical cords, cord sets, plugs and receptacles, electrical tools and other electrical devices, attachments, instruments, etc. shall be visibly inspected by the user each day or more often if necessary. Any defects affecting safety shall not be used and shall be reported to the supervisor immediately.

Assured Equipment Grounding Conductor Program

The Assured Equipment Grounding Conductor Program (AEGCP) shall cover all cord sets, receptacles not a part of the permanent wiring of a structure and equipment connected by cord and plug on all construction and maintenance sites.

This written description of the program shall be kept at the jobsite for inspection and copying by OSHA and any affected employee. The job supervisor will be the designated competent person for overseeing the electrical program.

Removing Equipment:

All equipment found damaged or defective or which fails any of the prescribed inspections or tests may not be used until repaired or replaced. All defective or failed equipment must be tagged with a red "do not operate tag" until repaired and tested or rendered unusable and discarded.

Daily Visual inspections – The following shall be visually inspected before each day's use for external defects (such as deformed or missing pins or insulation damage) and for indication of possible internal damage:

- Cord sets.
- Attachment caps.
- Plug and receptacle of cord sets.
- Any equipment connected by cord and plug; and
- Damaged items shall not be used until repaired or discarded.

Continuity Testing – Testing must ensure continuity and electrically continuous. The tester shall use either a continuity tester or an ohmmeter for testing equipment grounding conductors on the following:

- All cord sets.
- Receptacles that are not a part of the permanent wiring of the building or structure; and
- All plug-connected equipment is required to be grounded.

Grounding Conductor Testing – The tester shall use either a continuity tester or an ohmmeter for testing. Each receptacle and plug of the following shall be tested for correct attachment of the equipment grounding conductor and the equipment grounding conductor shall be connected to its proper terminal:

- All cord sets.
- Receptacles that are not a part of the permanent wiring of the building or structure; and
- All plug-connected equipment is required to be grounded.

Test Frequency – All required tests shall be performed with the following frequency:

- Before first use.
- Before equipment is returned to service following any repairs.
- Before equipment is used after any incident that can be reasonably suspected to have caused damage; and
- At intervals not to exceed 3 months, except that cord sets and receptacles that are fixed and not exposed to damage shall be tested at intervals not to exceed six months.

All tests shall be documented to identify each receptacle, cord set and cord and plug-connected equipment that passed the test, the date of the test and the individual responsible for the test. Records shall be made available at each job site for inspection by employees and OSHA.

All tested cord sets and cord and plug-connected equipment shall be marked, at one or both ends, with colored tape to denote the month that the tests were performed.

Training

All employees shall be trained in and be familiar with all electrical-related safety practices which are necessary for their safety. The training received will be both in the classroom and in the field. The degree to which an employee must be trained will be determined by his/her job- specific risk of electrical-related injury.

The training for **qualified persons,** those authorized to work on or in the proximity of exposed energized parts, shall include, but not be limited to:

1. The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment.

2. The skills and techniques necessary to determine the nominal voltage of exposed live parts.

3. Special precautionary techniques, personal protective equipment, insulating and shielding.

Employees shall receive annual critical performance reviews and will be observed on an occasional basis. If at any time, an employee fails to follow the safety-related work practices mandated by Rangeline Group Management, he/she will be retrained. Furthermore, an employee shall be trained (retrained) if he/she has not performed the assigned task within the previous 12 months, or there are new technologies, new types of equipment or changes in procedure.

NOTE: The Scope of work within Rangeline Group does not authorize any employee to work on energized electrical part. Only qualified persons may work on electric circuit parts

or equipment that has not been de-energized. Rangeline Group employees are expected to not work on or near power lines or energized electrical part.

The training for all employees will include:

1. A comprehensive understanding of the conductive properties of items in the vicinity of high-voltage.

2. Safe operating practices while in the vicinity of equipment that is engaged in work near high-voltage power lines.

3. Hazard recognition of potential dangers with overhead power lines

4. A comprehensive understanding of what to do if equipment contacts an overhead powerline.

NOTE: Additional precautions, such as the use of barricades or insulation, shall be trained on and implemented to protect employees from hazardous ground potentials, which can develop within the first few feet or more outward from the grounding point.

End Of Policy

Fire Protection and Prevention

Almost all fires are preventable, and control measures can limit the losses if a fire does occur. A prevention program will involve employee training on material storage, inspections, and emergency action procedures. Employees of Rangeline Group and its subcontractors will perform fire-fighting techniques on incipient stage fires ONLY. No Rangeline Group employee is authorized to conduct firefighting beyond incipient stages.

Fire prevention and control principles include the following:

1. Dispose of all waste in proper containers and keep work area clean and orderly. Do not allow accumulation.
2. The use of flammable solvents as cleaning agents is prohibited.
3. The engine of all equipment being fueled shall be shut off and allowed to cool before fueling operations begin.
4. Open flames shall not be used to locate leaks.
5. Smoking within 50 feet of operations, which constitutes a fire hazard, is strictly prohibited.
6. "NO SMOKING" signs will be posted and clearly visible around any area that constitutes a fire hazard.
7. All employees are responsible for knowing the location and operations of all fire extinguishers, hoses, and alarms.
8. All fire extinguishers will be properly mounted and marked as follows:
    - Mounted 3 to 5 feet from top of extinguisher to floor
    - Not blocked by any equipment: free access at all times.
    - Marked properly and made clearly visible
9. All hoses and equipment must be properly grounded and bonded while being used around flammable materials.
10. Flammable materials must be stored in well-ventilated areas or in approved storage cabinets.
11. Perform welding/cutting operations and all other hot work in a safe location which is away from any fire hazard.
12. Keep all exits unobstructed.
13. Dispose of all cigarette butts, matches, and other hot items in proper containers.

14. Inspect all heaters and electrical cords/appliances before each use.

15. Do not overload electrical circuits or use frayed or defective electrical cords.

16. Drum dispensers should be of the self-closing type.

17. Routine inspections shall be performed for hazards and equipment maintenance.

18. Operations that generate dust or vapors must be performed in well-ventilated areas.

19. Heaters should be operated in areas free of combustibles or rubbish.

20. Have all fire extinguishers inspected monthly and records kept of each inspection. Furthermore, all fire extinguishers will be inspected and serviced annually by a third-party fire extinguisher service company. Both the annual and monthly inspections will be documented on tags attached to the fire extinguisher.

21. Monthly vision checks should include an inspection of the hose, nozzles, seals, gauge pressure, corrosion and dents. An inspection record will be maintained at each fire extinguisher as required by law. If the condition of a fire extinguisher fails to meet the manufacturer's definition of a satisfactory extinguisher, it shall be removed from the work area and tagged "Do Not Use".

22. Promptly discover the fire and extinguish it before it grows out of control. Most fires start small and can initially be extinguished by a hand-held fire extinguisher. Never place yourself in a situation where you could be harmed while fighting a fire.

23. Stand at least 6 feet away and up wind of the fire while you attempt to extinguish it.

24. Aim the spray nozzle at the base of the fire where the fuel is located.

25. Remember to use the **PASS** method.
    - **P**ULL
    - **A**IM
    - **S**QUEEZE
    - **S**WEEP

26. Remember the acronym **RACE:**
    - **R**ESCUE anyone that you can safely
    - **A**LARM everyone that there is a fire
    - **C**ONTAIN the fire by shutting all doors and windows, and by removing flammable items.
    - **E**XTINGUISH/**E**VACUATE, if possible, put out the fire in its incipient stage only, and then evacuate to the designated emergency staging area for a head count.

27. In areas where extinguishers are visibly obstructed, their locations shall be marked with signs or painted symbols that are high enough and legible enough to be recognized and seen.

28. Whenever an extinguisher is used for any amount of time, it shall be removed from service, taken out of view until recharged, and reported to a supervisor immediately. Once the pressure seal on a fire extinguisher is broken, the pressure will bleed down; therefore, any used fire extinguisher must be refilled and re-pressurized. No used extinguishers can be left lying about for any reason.

29. Whenever there is hot work being done, a sufficient number of portable fire extinguishers will be present to help in the event they are needed.

30. All persons will be trained on the proper use, function and deployment of fire extinguishers. This shall be done during New Hire Orientation or upon initial assignment, and at least annually thereafter. Training will consist of the following:

    - Types and sizes of fire extinguishers
        - Types of fires.
        - Fires specific to Rangeline Group tasks (over-heated equipment, oil and gas fires)
        - Incipient stage firefighting and the hazards related to it
        - Fire tetrahedron
        - First aid for burns
        - All other components of the Rangeline Group Fire Protection and Prevention policy.

End Of Policy

First Aid /Cardiopulmonary Resuscitation (CPR) Procedures

Definition of First Aid: *Immediate care given to a victim of an accident or sudden illness until a higher level of medical skill and care can be provided.*

Special Note: If you are in a situation that requires medical services of any kind, you are required to notify the Emergency Medical System (EMS) by calling 911. Each jobsite will have at least one employee who has a current certification in First Aid and CPR such as American Red Cross or equivalent. It is the responsibility of those trained and certified in first aid to render 1st aid., It is the policy of Rangeline Group Management to provide employees with training in First Aid and CPR on a two year rotation A valid certificate in first-aid training must be obtained from the American Red Cross, or equivalent training that can be verified by documentary evidence.

Prior to commencement of a project, determine the availability of the Emergency Medical System (911). In areas where the 911 system is not available, an emergency contact document will be given to each person on the job site, a copy will be put in every first aid kit, and a copy shall be clearly posted for all employees on the job site. This document will include the numbers of the physicians, hospitals or ambulances in the area. In the event that an ambulance is not warranted or available, a supervisor that is fluent in the language of the injured employee is responsible for transporting the injured employee to an emergency facility.

Always remember to ensure the scene is safe for you to enter before you attempt to administer any type of rescue. If you are going to enter a hazardous atmosphere, ensure you are wearing appropriate breathing equipment for the environment. If there are electrical hazards of any kind, ensure that the electric current is turned off before you attempt a rescue.

Specimens of blood or other potentially infectious materials must be double-bagged in the leakproof, red biohazard bags and disposed of properly. These bags are found in the first aid kit provided by the company.

The following are guidelines to use in the field for common situations.

Victim has Stopped Breathing—Situation: *Critical* Two types of breathing emergency

scenarios include:

1. Not breathing with a pulse: Requires rescue breathing
2. Not breathing without a pulse: Requires Cardiopulmonary Resuscitation (CPR)

Not breathing with a pulse. It is essential to check for a pulse when you assess any victim. You can check for a pulse at the carotid artery on the victim's neck. This can be located by placing your first two fingers on the Adam's apple region of the neck and sliding your fingers towards yourself until you reach about midway or just shy of % around the neck. Be sure to use your fingers and not your thumb.
If the victim has a pulse then the rescuer must sustain life by providing rescue breaths.

- Ensure the victim is out of harm's way.

- Perform a head tilt-chin lift to open the victim's airway.
- Administer 1 rescue breath every 5 seconds (about 12 per minute).
- Ensure your breaths enter the victim's lungs by watching the chest rise and by feeling your own lungs exhaling.
- Continue for 1 minute before rechecking for the pulse.
- You will continue until another first responder relieves you, if EMS arrives, or you become too physically exhausted to continue.
- Trained personnel will accomplish the administration of Grade D breathing air.

Common situations that can cause the victim to stop breathing but continue to have a pulse might include but are limited to; inhalation of gas vapors, oxygen deficient environment, smoke inhalation, drowning or electric shock.

Always check for a pulse; never make an assumption!

Not breathing without a pulse. This is an indication that the victim is not only not breathing (taking in oxygen), but the victim's heart is not pumping the already oxygen depleted blood throughout the body. This is a critical time. You, as the first responder, must sustain life by introducing oxygen through artificial resuscitation, while helping distribute the oxygen manually (chest compressions). This is Cardiopulmonary Resuscitation.

Cardiopulmonary Resuscitation (CPR)

CPR is to be administered by First Aid/CPR certified individuals. If you are not trained and certified in First Aid/CPR and are confronted with this situation, always assist to the best of your ability: summon help, confront the victim, and attempt CPR, etc.

If the victim needs CPR, then remember the following:

- Ensure the victim is out of harm's way
- Perform a head tilt/chin lift to open the victim's airway
- Give two steady breaths that last approximately 1-3 seconds
- You will need to check for a pulse at this time on the victim's carotid artery. If no pulse found then proceed to next step. If you do find a pulse, continue with rescue breathing as is covered in above section.
- Give 15 chest compressions approximately 1"-1 *V"* deep
  NOTE: You can find proper hand placement by tracing the victim's rib cage up until you find the sternum. Place your fingers on the sternum, then place your opposite palm just above your fingers that are on the sternum. Then place the hand you used to find the sternum on top of the hand resting on the victim's chest. This will give you the proper hand placement to begin chest compressions
- Administer two breaths into the victim. This is the 15:2 ratio of CPR.
- This ratio will be completed 4 complete times before you recheck for a pulse.

When to stop CPR:

1. When another person trained in CPR relieves you,
2. When paramedics or EMT personnel arrive,

3. When the situation endangers your safety and health, or

4. When you become too exhausted to proceed.

Things to remember:

- Always use ***Universal Precautions',*** assume every other person's blood or body fluids are contaminated, and protect yourself accordingly.
- Always wash your hands before and after giving first aid. If there are no hand washing facilities available, hand sanitizer found in the first aid kit must be used.
- Use latex or similar type gloves when treating someone
- Wear goggles if possible to protect against splash hazard
- Be prepared to break ribs during CPR
- And breathing barriers are an excellent way to prevent contamination during CPR

Heart Attack

- Immediate notification of the EMS system is essential. Call 911.
- Treat for shock (see below)
- Try to keep the victim calm and make them as comfortable as possible.
- Monitor the ABC's—Airway Breathing Circulation: If the victim is talking to you, you know that he/she is breathing. If they become unconscious, do a head tilt/chin lift to maintain an open airway. Check for breathing and monitor the pulse. If the victim needs CPR you will be prepared.

Severe Bleeding

- Apply direct pressure to the wound with a dry, clean, sterile pad or gauze.
- If possible, have the victim apply the bandage. This helps control shock by giving the victim something to focus on, and it helps to keep the rescuer away from the victim's blood
- Keep the wound elevated above the heart if possible
- If bleeding will not stop, then apply pressure at the applicable pressure points. For injuries of the arm, find the brachial artery located along the upper arm bone on the inside if the bicep. For injuries of the leg, find the femoral artery located next to the pubic region where the leg and pelvis come together.
- Have victim seek medical attention after first aid attempts were successful. If you cannot get blood to stop, then you may need to call 911.

Fractures or Breaks

Common signs and symptoms include severe pain, muscle spasms, weakness or numbness below the suspected area, and the victim guarding the suspected area.

- If you cannot get victim out safely, call 911
- Splint the injured limb above and below the nearest joint. This prevents the parts from moving

- Never move a suspected broken limb. Splint in place.
- Monitor the ABC's and treat for shock if the victim begins to show signs

Chemical Exposure

Treatment for chemical exposure will be based on SDS recommendations. SDS books will be readily available at each jobsite for reference. Eye wash equipment should be capable of providing a 15-minute supply of cleansing solution, to be used for flushing chemicals from the eyes or off of the body. A safety shower shall be available in the work area for flushing of skin in the event of an exposure to a chemical. Drinking water may also be used. The person taking the employee to emergency services will bring along a copy of the SDS sheet.

Shock

Shock happens when a victim's entire system begins to shut down.
Symptoms of shock include cold and clammy skin, pale complexion, shallow breathing, and rapid pulse. Many things can cause shock *such* as a severe injury, witnessing a trauma, infection, pain, heart attack, stroke and or heat exhaustion.

- Notify EMS (Call 911)
- Have victim lie down
- Elevate feet 8-12 inches if no spinal trauma suspected
- If possible have the victim's head slightly lower than his/her heart
- Keep the victim comfortable
- Monitor ABC's until help arrives

Heat Exhaustion

Following heat cramps, heat exhaustion is the warning sign of a potential heat- related emergency. You must take care of yourself and your co-workers at this critical time. The signs and symptoms of heat exhaustion include pale complexion, clammy skin, headache, nausea, weakness, high body temperature and excessive sweating.

- Treat for shock.
- Get victim out of heat and into a shaded cool place.
- Have victim lie down with head below heart level.
- If conscious, give victim something to drink.
- Monitor the ABC's and seek medical attention.

Heat Stroke

Heat stroke is a medical emergency that is life threatening. If medical attention is not administered, the victim can face coma and/or death. Signs of heat stroke include but are not limited to; flushed and /or hot skin, sweating stops or slows noticeably, Strong rapid heart rate (pulse), body temperature significantly above normal (normal is 98.6°F), headache, nausea, dizziness and finally unconsciousness.

The victim needs immediate attention.

- Call EMS (911)

- Get victim out of heat, into shade, a building, or whatever provides a cover from the heat
- Rapidly cool the victim by applying cool water to the victim's entire body. If only dirty puddle water is available, then use it.
- Monitor the ABC's and assist the victim with whatever he/she needs until help arrives.

Burns

First and foremost, you must remove the victim from the source of the burn (example: If electrical, turn off power).

- Treat for shock
- Protect the burned area with sterile dressings or gauze
- Control the pain
    1. Place burned appendage in cool running water such as a sink and faucet
    2. Give Ibuprofen (an anti-inflammatory)
    3. Give acetaminophen (a pain reliever)
    4. Ask victim if they are allergic before assisting in administering any medicine.
    5. Neither will counteract with each other.

Things to remember:

If it is a chemical bum you are dealing with, remember to read the SDS before flushing your eyes. If you do not read the SDS you can make matters worse by mixing water with a chemical that reacts to water.

If you are going to flush your eyes and skin, brush powered chemicals away first, and remove unnecessary clothing. Flush for 15 minutes at a minimum.

Use only clean, clear water for flushing. Contact a physician for any chemical burn.

Insect / Animal Bites

Any sting or bite from an insect with venom, i.e., wasps, bees, spiders, fire ant, etc., should be reported to your supervisor immediately. Some people can react quite severely to insect stings and bites. This is called **anaphylaxis.** Insect or medications, certain foods, or even pollen can cause this type of reaction. Anaphylaxis will usually occur within minutes of the exposure and can peak around 15 to 30 minutes, usually ending after a few hours. **Signs and symptoms of anaphylaxis include** sneezing, coughing, wheezing, difficulty breathing, swelling in the throat, tightness in the chest, rapid heart rate, swelling of the tongue, nose and mouth, blueness around lips and mouth, dizziness, nausea and vomiting.

What do you do?

- Monitor the ABC's
- Get medical attention immediately
- Help administer medication (epinephrine, Dr. prescribed) if they have it.

Bees and Wasps:

- If bee sting, remove the bee stinger that is carrying the venom by scraping the stinger with an ID card (Driver's License) to allow the barbed end to "pop" free of your skin.
- Wash the sting site with soap and water to stay off infection
- Apply ice pack to site to slow absorption and relieve. A paste of water and baking soda will help draw out the venom.
- Ibuprofen will help reduce swelling and acetaminophen will help relieve pain, and hydrocortisone will help with itching.
- Monitor victim for at least 30 minutes for any signs of reaction. If you notice reaction, then seek medical attention.

All Spiders:

Most all spiders carry some form of venom, however, only a few are highly poisonous. The Brown Recluse and the Black Widow are the biggest spider concerns that we will have in our region. However, we must take care for all spider bites.

What to do if bitten?

- Try and capture the spider if at all possible, even if has been crushed by the victim, so that it can be taken to the hospital
- Clean the bite site with soap and water or rubbing alcohol .
- Apply ice to slow venom and relieve swelling
- Give ibuprofen and acetaminophen for swelling and pain
- Monitor the ABC's
- Seek medical attention immediately.

NOTE: Anti-venom exists for Black Widows; however, it is usually reserved for children under six and adults over 60, pregnant women and those victims having a severe reaction to the venom.

Snakes

There are four types of poisonous snakes in our area of operation with which we must concern ourselves: *Water Moccasin (Cottonmouth), Rattlesnake, Copperhead,* and *Coral Snake.*

Signs and symptoms of snakebite:

- Severe burning at the bite site
- Two small puncture wounds that about *VC* apart
- Swelling at the site (usually within 5 minutes)
- Discoloration and blisters filled with blood developing 6+ hours later
- In some cases, nausea, vomiting, weakness

Pit Viper Bites:

- Get victim away from snake. They can strike repeatedly, and they can strike up to half the distance of their bodies. Even a decapitated snake can have movement and release venom for up to 20 minutes after decapitation.
- Calm the victim and either carry them or have them walk with you slowly to help.
- Wash the bite site gently with soap and water.

- If you have a venom extractor and you are more than one hour away from medical facilities, you should use it now. A venom extractor is a device used to pull the venom out of a victim. **Do not cut and suck the bite site.**
- Anti-venom (if available) is the same used for all three pit vipers in North America. So, get to the hospital as soon as possible.

Coral Snake Bites:

- Calm the victim
- Wash the bite site gently with soap and water.
- Apply mild pressure by wrapping the bite site and entire appendage (arm or leg) that was bitten in several elastic bandages. This is only done for coral snake bite, not pit viper bites.
- Seek medical attention immediately for anti-venom (if available)

NOTE: It is important to remember that coral snakes are not aggressive and do not strike their victims; they have to "chew" to release their venom.

Mammal Bites

Dog, raccoons, bat, fox, and skunk bites are the most common. If a skunk, raccoon, bat or fox bites you in North America, you must consider beginning rabies treatment immediately.

- If bitten in the U.S. by a healthy and domestic dog or cat, the animal must be observed for at least 10 days for any sign of illness
- If the animal is a stray, it should be reported to animal control immediately for capture and testing.
- Clean the wound with soap and water and rinse it with mild pressure
- Stop any bleeding and care for the wound
- Get medical attention for better cleaning and possibly a tetanus shot. The Doctor will assess the need for stitches and/or rabies treatment.

Personal Protective Equipment Recommendations

If there comes a time when you may be required to render first aid to another person, the following PPE recommendations should be adhered to:

Act	Gloves	Mask	Eye Protection	Mouth Barrier
Rescue Breathing	Yes	Not Needed	Yes	Not Needed
CPR	Yes	Not Needed	Yes	Yes
Excessive Bleeding	Yes	Yes	Yes	Not Needed
Slight Bleeding	Yes	Not Needed	Yes	Not Needed
Cleaning Potentially Contaminated Equipment and Surfaces	Yes	Not Needed	Yes	Not Needed

Taking Temperature	Yes	Not Needed	Not Needed	Not Needed

PPE will be provided by Rangeline Group Managements.

Recommended First Aid Kit Contents

- 3/4" to 1" X 3" adhesive bandages
- 2" X 4" adhesive bandaged
- 3" X 3" gauze pads
- 4" X 4" gauze pads
- 2" X 4 yards roller gauze
- 3" X 4 yards roller gauze
- 1 " wide adhesive tape
- Finger-tip bandages
- Knuckle bandages
- Iodine antiseptic
- Scissors
- Latex or similar gloves
- Triangle bandage for a sling
- Biohazard bag (Red Bag will be adequate)
- Instant Ice Pack
- Blanket
- Eye wash solution
- Antibacterial Hand Sanitizer Recommended medications include:

- Ibuprofen, 200 mg tablets
- Acetaminophen, 500 mg tablets
- Benadryl, 25 mg tablets (Insect bites and allergic reactions)
- Triple antibiotic ointment

Employers should ensure the availability of adequate first-aid supplies, and periodically reassess the demand for supplies and adjust their inventories. For construction operations, first-aid kits shall be checked before being sent out to each job and at least weekly. These items will be kept in a weather-proof container and all items will be sealed individually. There will be a First Aid Kit in every company vehicle. These kits will remain on the jobsite during working hours. The First Aid Kits will be inspected by a supervisor prior to being sent onto a job site and truck kits will be inspected at least Monthly

Where the eyes or body of any person shall be exposed to any corrosive or harmful materials, there will be an eye/body wash station present.

End Of Policy

Forklift Operations

Purpose

This program has been written to comply with the requirements set forth in 29 CFR 1910.178 Powered Industrial Trucks. This program is designed to outline the safety requirements of lift trucks. It is not intended to outline procedures for automobiles or pickup type trucks.

Scope

This program covers all employees certified to operate lift trucks for Rangeline Group Management. The Rangeline Group lift truck operator safety program mandates that all operators must:

- Be classroom trained. Classroom training is to include lecture and discussion, videos, written materials and interactive computer instruction.
- Have hands-on training, including instructor demonstrations and trainee exercises, on the specific type of lift truck they will be operating
- Pass a written examination
- Pass a critically documented observation on the practical use of the lift truck(s) they will be operating—see "Observation Form" in Appendix A on p. 5.

Lift truck operator instructors must have the experience and aptitude necessary to pass a critically assessed competency evaluation on a bi-annual basis. Instructor evaluations and the documentation collected during training will be kept on file in the employees' training files. Operators are only authorized to drive those vehicles on which they have been certified; in the event there are multiple types or brands of lift truck present on a job site, an operator is only authorized to drive those lift trucks on which he/she has been certified.

Instruction in Forklift operations must cover:

Truck-related topics:

1. Operator instructions, warnings, and precautions for the types of truck the operator will be authorized to operate
2. Difference between truck and automobile
3. Truck controls and instrumentation; where they are located, what they do, and how they work
4. Engine and motor operation
5. Steering and maneuverability
6. Visibility and restrictions of such
7. Fork and attachment adaptation, operation, and use limitations
8. Vehicle capacity
9. Vehicle stability
10. Vehicle inspections
11. Refueling and recharging
12. Operating limitations
13. No additional riders on forklifts
14. Any other instructions found in Operator's Manual

Workplace-related topics:

- Surface conditions
- Composition of loads and load stability
- Load manipulation
- Pedestrian traffic
- Narrow aisles ways
- Hazardous (classified) location where may be operated
- Ramps and other sloped surfaces
- Closed environments and poor ventilation areas
- Any other potentially hazardous environmental conditions

Refresher Training and Re-Certification

In order for Rangeline Group to ensure that adequately trained and competent people are operating our equipment, refresher training is mandatory as per 29 CFR 1910.178 (l)(4)(i)(ii).

Refresher training shall be provided when:

- The operator has been observed operating unsafely.
- The operator has been involved in an accident or near-miss incident.
- The operator receives an evaluation that reveals the operator is not operating the truck safely.
- The operator is assigned to drive a different type of lift truck.
- Changes in the condition of the workplace could affect the safe operation of the lift truck.

Certification

Rangeline Group requires re-certification every three years or as prescribed above. Certification shall state the name of the operator, date of training, date of evaluation, type of lift truck authorized to operate, and the name of the instructor. ***Only certified and authorized employees may operate lift trucks.***

Inspections

Inspections shall be made by the operator at the beginning of each shift and the lift truck put into service only if the inspection reveals it to be in acceptable operating conditions. Common inspection points may be but are not limited to: Fluid level, fluid leaks, steering controls, seat belts if installed, brakes, tires, wheels, capacity chart, horn, lights, alarms, gauges, mast, forks, controls, roll over protection. Such examination shall be made at least daily. Where industrial trucks are used a round-the-clock basis, they shall be examined after each shift.
Inspection forms shall be completed and returned to the appropriate person for repair and record keeping.

When Defects are Discovered

No lift truck shall be operated when any defect that affects the safe operating performance of the truck has been found.

The lift truck must be removed from service and tagged “Out of Service”. The operator’s manual will give advice on safe operation.

Repairs

Only properly trained and authorized employees may attempt repairs. Modifications and additions to a lift truck may only be conducted with written permission by the manufacturer. Capacity changes must be made accordingly and placed on the capacity chart.

Load/Capacity Charts

Load or capacity charts are to be adhered to without exception. The capacity of a lift truck is based on the amount of weight a lift truck can safely lift with the center of gravity at the midpoint on the forks. This is a critical factor in lift truck operations and Rangeline Group cannot stress compliance enough.

Transporting a Lift Truck

Rangeline Group requires that operators verify that the vehicle from which a lift truck is being unloaded, or the vehicle a lift truck is being loaded onto is properly secured in advance— fixed jacks, trailer chocks, brakes, supports and dock plates, etc. may be necessary to satisfy this requirement.

Continue Below

Appendix A

Forklift Operator Observation/Evaluation Form

OSHA rule 29 CFR 1910.178(1) on the training of powered industrial truck operators requires employers to observe & evaluate the performance of their lift truck operators during a three (3) year cycle.

Operator's Name: _____ Date: _____ I (Observer/Evaluator) _____ observed the above-named operator doing the following:

	Safe Operator Actions:		
1.	Do and Record results of Daily/Shift Examination of truck s/he is driving.	**No**	**Yes**
2.	Dead stop at least one(1) truck length from pedestrians or other hazards in path of travel.	**No**	**Yes**
3.	Move mast/upright controls ONLY when truck is at dead stop.	**No**	**Yes**
4.	Park truck 4 or more feet away from marked pedestrian walkways, emergency equipment or exit ways.	**No**	**Yes**
5.	Travel with load no higher than the distance of the drive wheel axel(s) to the travel surface (Approx. 6,10,or 18 inches for typical trucks).	**No**	**Yes**
6.	Pick up loads without sliding or "barging".	**No**	**Yes**
7.	Place loads without "poking" or pushing or touching other loads, racks or building members.	**No**	**Yes**
8.	Before abandoning truck, set parking brake, neutralized all controls and removed key from switch.	**No**	**Yes**
9.	Before entering trailer or rail car, place chock in correct position.	**No**	**Yes**
10.	Sound horn BEFORE moving from dead stop.	**No**	**Yes**
11.	Dead stop BEFORE all blind corners, through intersections, and marked pedestrian walkways.	**No**	**Yes**
12.	Travel with all body parts within operator's compartment or platform.	**No**	**Yes**

General Safety Policy

Rangeline Group believes that all work can be performed without people being injured or the environment being damaged. To help make this philosophy a reality and to allow Rangeline Group employees to apply it to their daily activities, a health and safety and environmental management system was created.

Rangeline Group is committed to providing a safe and healthy work environment and has developed a Safe Work Manual to provide a framework for leadership at all levels in the company. This emphasis on health and safety culture is part of what makes Rangeline Group a great place to work. The management team is committed to providing the leadership and resources to achieve a *world-class* safety system with *world class* results. Indeed, this is what our customers expect. It is our belief that both Rangeline Group employees and subcontractors will share in the successful implementation of the Safety Management System.

Management is continually taking initiative to strategically improve the safety culture by:

- Improving safety awareness by providing orientation, training and education
- Employing best industry work practices
- Ensuring proper assessment and mitigation of hazards in the workplace
- Ensuring frequent and regular inspections of job sites, materials and equipment by a competent person
- Ensuring proper reporting and investigation of incidents
- Implementing behavior-based techniques to instill safety as a value
- Establishing rules for situations where employees refuse to work due to imminent danger
- Controlling documents and records
- Ensuring only qualified employees are allowed to operate equipment
- Reviewing performance and setting annual goals and objectives for safety performance

An overall safety policy has been developed to provide guidance to the health and safety performance Rangeline Group intends to achieve. The policy is supported by the Safety Values, which is signed by all members of senior management. The policy is made available to our employees, clients, subcontractors and the general public. The Safety Values posting is prominently displayed in Rangeline Group offices and includes the signatures of the employees at that location.

Safety management is integral to all aspects of operations at Rangeline Group Management, and composed of eight structured and documented elements designed to ensure and demonstrate that health and safety objectives are met. These elements are:

1. Policy
2. Organization, Responsibilities, and Objectives
3. Risk and Regulatory Management
4. Administration
5. Operations
6. Monitoring and Control
7. Audit
8. Management Review and Continual Improvement

Company Safety Values

The safety values of Rangeline Group are an integral part of the overall corporate philosophy towards safety.

We Believe:

- Leadership in safety starts at the top.
- Safety is as important as anything else we do
- All incidents and injuries are preventable
- Each of us has a personal responsibility for our safety and the safety of others, both on and off the job.
- No job is so important that it will be pursued at the sacrifice of safety
- Working safely is a condition of employment

We Will:

- Dedicate the appropriate time, energy and resources to making safety an everyday part of what we do
- Perform a hazard analysis prior to each job task
- Report all safety hazards, injuries and incidents, including near misses and first aid cases
- Refuse any request to perform work that is unsafe
- Actively participate in creating a culture that embraces safety

Safety Management System Policy

The management of Rangeline Group expects that all personnel will work in a safe manner. The management will support all safety practices and codes recognized in our industry and will ensure that all employees have access to the approved personal protective equipment, proper tools, a safe environment and appropriate training. We expect the employees of Rangeline Group Service to practice safe working procedures and habits so as not to incur injury to themselves, their co-workers, clients or the general public.

It is a Rangeline Group philosophy that a goal of *Zero Occurrences* is possible, and we are committed to continually develop a strong culture to ensure a positive attitude toward safety. This policy of protecting our employees is also protecting their families, friends, fellow workers, the public and the environment from the ripple effect of serious incidents.

It is our goal to become industry leaders through our performance, adherence to regulations and our Safety Management System.

All employees of Rangeline Group are able to access the contents of this safety manual and other safety related documents. We welcome suggestions with respect to improvements to our Safety Management System.

End Of Policy

Hand and Power Tools

1. All tools, whether owned by Rangeline Group or employee, must be maintained in a safe condition and inspected regularly. Replace defective tools and tag-out damaged equipment.
2. Do not modify tools. Safety guards must NOT be removed, restrained, or bypassed.
3. Use tools for designed purposes only. Get the right tool for the job.
4. Do not remove guards and/or handles from grinders.
5. Be sure power tools are turned off before connecting to an energy source. De-energize equipment before servicing or changing components.
6. If there is any potential for fire or explosion, intrinsically safe tools must be used. Air operated tools should be chosen and compressed gas is never used to operate these tools.
7. With the exception of UL double-insulated tools, the frames of portable electric tools must be grounded, either through a 3-way plug or separate wire. Tools used in or near wet locations must be plugged into a ground-fault protection circuit.
8. Never use one wrench as a cheater for a second wrench. Cheaters shall not be used.
9. Never step or jump on wrenches when additional force is required. Get a larger tool.
10. Air from a compressed air hose is not to be used to blow particles off clothing, hair or skin.
11. Do not use tools, unless a pry bar, as a pry bar.
12. Do not throw tools.
13. Guards or shields must be in place and operable at all times while tool is being operated.
14. Electric cords to power tools must be in good condition and should not be run through door openings or across driveways.
15. Air hoses used for tools should be secured with devices to prevent accidental separation. Hoses under pressure will be secured at end connections to prevent separation or whipping.
16. Do not operate power tools unless you are properly trained.
17. Be aware of twisting/kick-out forces with certain tools. Maintain solid footing and remain alert.

18. Employees will be issued and are required to wear any PPE that is considered necessary to protect them from the potential hazards of the tool or environment (i.e. falling, flying, abrasive, or splashing objects, or harmful dust, fumes, mists, vapors or gases). Compliance is mandatory.

19. Carry tools in appropriate pouches and/or sheaths.

20. Use proper securing devices to hold material in place.

21. Do not place sharp or pointed tools in pockets.

22. Hold and carry tools by designated handles.

23. De-energize all power tools when moving or repairing.

24. Keep cutting tools sharp and lubricated.

25. Do not wear loose jewelry or clothing around rotating equipment. Tie long hair back.

26. During work operations, idle tools will be placed in secure spots where they do not become a tripping or falling hazard.

27. Tools will be secured in the rear of vehicle where they do not become a projectile during vehicle collisions.

28. Tools will not be stored in the rear of vehicles where they obstruct the drivers' vision.

29. Report damaged tools for appropriate repair. Do not use broken tools.

30. Handles will not be taped or painted.

31. Any tool which is not in compliance with any applicable requirement of this program is prohibited and must be identified as unsafe by tagging and/or locking the controls to render it inoperable. If this is not practical or feasible, the tool must be physically removed from its place of operation.

Specific Guidance for Use of Tools and Machinery

The proper use of tools and equipment is a key concern to Rangeline Group Management. Employees must be sure to follow all manufacturer procedures for the use of tools and equipment. First, employees must have training in the use of tools or machinery. For hand tools, this can be done locally by experienced personnel. For complex machines, such as aerial lifts, the training will be structured, taught by certified professionals and documented. Specific procedures for this type of equipment are contained elsewhere in this manual.

Most importantly, employees are instructed not to use a defective tool, one in need of repair or calibration. Use of such tools (or machinery) is prohibited. Defective tools must be clearly tagged "Out Of Service," and placed out of the work area until repaired and ready for use.

Hazard Identification and Risk Assessment

Hazard identification and risk assessment are vital components of every safe work environment. Management has implemented a Job Hazard Analysis (JHA) program to prevent accidents by identifying hazards, and then developing corrective action to eliminate, or reduce the hazards, both existing and potential, to an acceptable level before initiating work.

The goal is to:

1. Identify the potential hazards
2. Identify appropriate methods to reduce or eliminate the hazards
3. Fulfill requirements of the Customer
4. Create a PPE Hazard Assessment

JHAs must be completed before each job (routine or non-routine) is begun, and whenever a new process is introduced, a procedure is modified, or a change in products, services or operation is implemented. If the scope of the job changes, a new JHA is required, and all affected employees must participate in the completion of the new document.

Every affected employee and subcontractor employee is required to participate in the completion of the JHA, and all are expected to sign the document once it is completed. When the client does not provide a JHA form to complete, Rangeline Group will make theirs available and request that the client representative(s) participate.

Work permits (i.e. Hot Work Permits, Confined Space Entry, and Lockout/Tagout) may accompany the JHA.

Who should participate in filling out a JHA?

1. Job Foreman should lead the JHA team
2. Supervisor / Operations Managers
3. Employees who are experienced in performing the job
4. Technical experts (mechanics, engineers, etc.)
5. Customer representatives
6. Personnel with no experience in performing the job (often bring unique insight)
7. All other affected employees

When this process is executed properly, *all* employees will have something constructive to learn and contribute. Blank JHA forms are available in the office. Rangeline Group employees will be trained on JHA procedures during New Employee Orientation.

Hazard Identification and Mitigation

A JHA is one of the primary means of ensuring that employees return home the way that they came to work. It is a fundamental belief of this organization that all accidents are avoidable. Pursuant to this goal and belief, all employees must participate in the daily completion of JHAs in order to assist in the identification and mitigation of existing and potential hazards.

A JHA is designed to stimulate discussion between the employees that will ultimately flush out the existing and potential hazards that are either present on the jobsite or applicable to the job being performed. Once identified, hazards must be minimized or eliminated through engineering controls, work practices, or, as a last resort, personal protective equipment (PPE).

Whenever possible, engineering controls will be utilized to eliminate the identified hazards. Some examples of engineering controls are:

- Exhaust and/or Mechanical Ventilation
- Enclosure/Encapsulation
- Substitution of Materials
- Component Replacement
- Sound Barriers
- Process or Equipment Modification (i.e. using wet-blasting or vacuum blasting to eliminate hazardous dust)
- Isolation

It is imperative that corrective measures be documented, and an additional hazard assessment be executed once the corrective measures have been taken in order to ensure that the hazard has been eliminated, and no additional hazards have been created.

If engineering controls and work practices cannot sufficiently minimize or eliminate the hazards that were identified, then PPE must be utilized. Employees must be properly trained in the hazard identification process and on the use, maintenance, and limitations of the PPE they have been provided before they will be authorized to work within the affected jobsite or perform the applicable task. It is also necessary to make certain that the selected PPE will adequately minimize or eliminate the applicable hazard; for example, if a respirator must be used, it is critical that a competent person be consulted to ensure that the proper respirator is selected and used.

Once identified, hazards must be categorized and prioritized to properly address the most serious first. If an atmospheric hazard, for example, is identified, it may be necessary to evacuate the non-essential personnel and call for additional help to eliminate the hazard. In other situations, a jobsite may need to be isolated by barriers, and the workforce assigned accordingly before any work can be performed. In these situations, it is essential that the appropriate hazards be addressed in order of significance and severity to minimize the affected employees' exposure to the identified hazard.

Documentation mandated by this program must be maintained for at least 6 months, and dependent on the hazards identified, retention requirements may be extended.

It is the responsibility of the Safety Coordinator to ensure that this program is implemented and managed properly.

End Of Policy

Hazard Communication “Right to Know” / Chemical Handling

Policy

All Rangeline Group work locations shall fully comply with the Federal Occupational Safety and Health Administration (OSHA) Hazardous Communication Standard, 29 CFR 1910.1200 "RIGHT-TO-KNOW-LAW".

General Requirements

As of November 25, 1985, chemical manufacturers, importers, and distributors are required to label shipping containers of physical and/or health hazardous chemicals, and to provide Safety Data Sheets (SDS) to manufacturing purchases of these chemicals. The SDS is a form that provides more detailed information about a substance than the attached label contains.

The requirements are as follows:

- Rangeline Group must ensure that each container of hazardous chemicals in the workplace is labeled with appropriate physical and health warning information.
- Rangeline Group must maintain copies of the material safe data sheets (SDS) for each hazardous chemical in the workplace and ensure that they (SDS) are readily accessible to all employees at all times.
- Rangeline Group must provide employees with information and training on hazardous chemicals in their work area at the time of their initial assignment and whenever a new hazardous substance is introduced into their work area.
- Rangeline Group must develop and implement a written hazard communication program for their workplace.
- Rangeline Group should have specific methods for providing other employer information concerning hazardous chemicals at job sites. Rangeline Group should have methods of providing SDS sheets, methods of precautionary measures to be taken and methods of providing information on labeling systems. The program shall be made available, upon request, to employees, their designated representatives, the Assistant Secretary and the Director in accordance with requirements of 29 CFR 1910.1020. Where employees must travel between work places, the written program may be kept at a primary job site. If there is no primary, then the program should be sent with the employees.

Objective

The objective of the Hazard Communication (HAZCOM) program is to ensure that all employees are trained and made aware of all hazardous substances with which they work. The program is also to acquaint them with the danger to their health and safety from the potential hazards of exposure to such substances in the workplace.

Purpose

The purpose of HAZCOM is to develop uniform standards in the receipt, labeling, marking, handling, storage, use and protective measures in accordance with good safety practices, OSHA regulations and state requirements of all hazardous chemicals purchases or shipped off the site.

Coordination

The Safety Director has the overall responsibility for coordinating the hazard communication program. There are seven (7) key elements of a hazard communication program:

1. A written program.
2. A list of hazardous chemicals used.
3. **Hazardous chemical labeling:** It is our policy that each container of hazardous chemicals on a job site is properly labeled. The labels will list:

    a. The contents of the container.
    b. Appropriate hazard warnings.
    c. The name and address of the manufacturer, importer or other responsible party.

    NOTE: No one is authorized to remove or deface the labels on containers.

    To further ensure that employees are aware of the chemical hazards of materials used in the work area, it is our policy to label all secondary containers. Secondary containers will be labeled with an extra copy of the manufacturer's label or SAMPLE label that lists the container's contents and appropriate hazard warnings. Rangeline Group employees have the responsibility to see that all containers of hazardous chemicals are properly labeled. Labels shall be legible, in English. However, for non-English speaking employees, information may be presented in their language as well. Hazard warnings can include words, pictures, or symbols, in any combination. Some examples of labeling systems might include NFPA, DOT, and HMIS.

4. **Materials - Safety Data Sheets** (SDSs): A designated person will procure, post, and maintain the Safety Data Sheets for hazardous chemicals present on all job sites. SDS's must be available in each work area at all times, especially in emergency situations, to all employees at the job site, their representatives, and the authorities.

5. **Employee Training:** Employees are to attend a training session on hazardous chemicals in their work area. The training session will cover the following:

    - An overview of the Hazard Communication requirements.
    - A review of the chemicals presents in their workplace operations.
    - The location and availability of a written Hazard Communication program, a list of hazardous chemicals and Safety Data Sheets.
    - Methods and observation techniques that may be used to detect the presence or release of hazardous chemicals in the work area.

- The physical hazards of the chemicals in the work area, including signs and symptoms of exposure and any medical condition known to be aggravated by exposure to the chemical.
- How to lessen or prevent exposure to hazardous workplace chemicals by using good work practices, personal protective equipment, etc.
- Emergency procedures to follow if employees are exposed to hazardous chemicals.
- An explanation of the hazard communication program, including how to read labels and Safety Data Sheets to obtain appropriate hazard information.

When a new type of product is introduced into a work area or the chemical composition of a product changes, the Safety Director will review the above items as they are related to the new chemicals and relay this information to all affected employees.

A record of all training, including the name of the trainer, the date of training and the material covered, is to be kept for each employee inside of their permanent file. Records must be made available to the employee, his/her representative and the appropriate authorities.

6. **Non-Routine Tasks:** Employees are required periodically to perform non-routine tasks. Prior to starting work on such projects, each affected employee will be informed by the jobsite supervisor about hazards to which they may be exposed and appropriate protective and safety measures.

7. **Informing Other Employers:** To ensure that the employees of other contractors have access to information on the hazardous chemicals, it is the responsibility of Safety Director to provide others with the following information:

    - Where the SDSs are available.
    - The name and location of the hazardous chemicals to which their employees may be exposed, and any appropriate protective measures required to minimize their exposure.

An explanation of the labeling system used at the jobsite. Each new chemical brought onto a job-site must be accompanied by the appropriate hazard information.

End Of Policy

General Waste Management/Housekeeping

Good housekeeping must be maintained to ensure the safety of all Rangeline Group employees. The more aware employees are of hazards, the safer the workplace will be. Good housekeeping will prevent injuries, cultivate a safer work place, and promote a more efficient jobsite.

- Maintain all work, lunch, and break areas in a clean and orderly manner.
- Work areas, stairways, walkways, etc. must be kept clear of portable tools, materials, equipment, and other trip hazards. Return tools and other materials to their appropriate storage location and clean up messes periodically as you work to maintain tidy work spaces.
- Rangeline Group must estimate the waste that will be generated **prior** to work being performed so that the need for containers and waste removal, if necessary, can be determined.
- Rangeline Group employees must be instructed on the proper disposal method of wastes, whether they be hazardous or not. This may include general instruction on disposal of non-hazardous wastes or scrap materials.
- The contractor must ensure the owner is aware of whether wastes and scrap materials will be taken off site by the contractor or will be disposed of on the owner's site.
- Provide adequate space for tools, supplies, and material storage. Everything needs a place.
- Electrical cords are not to be placed across walkways. Secure cords to prevent tripping hazards. All unused electric cords, welding leads, etc. shall be rolled up and placed out of the walking path of any workers.
- Combustible scrap, leftover materials and debris should be removed from work area at regular intervals.
- Waste materials should be properly stored and handled to minimize the potential for a spill or impact to the environment. During outdoor activities, receptacles must be covered to prevent dispersion of waste materials and to control the potential for run-off.
- Proper waste receptacles must be provided for trash and materials that may be reused or recycled during a project.
- Nails, staples, and wires protruding from boards, boxes, shipping containers, etc. must be removed or bent down immediately.
- Provided containers must be used. Deliberate and willful scattering of trash will not be tolerated.

- Any and all work areas must be cleaned before the job can be accepted as being complete.
- Washrooms are provided for personal needs and must be used for these purposes. They are to be kept clean and orderly at all times.
- Electrical cords are not to be placed across walkways. Secure cords to prevent tripping hazard.
- All spills, no matter the substance, should be cleaned up immediately and disposed of properly. Spills may cause slips and falls. If a spill occurs, please protect yourself and others by cleaning it up.
- In order to work efficiently, the work place must be clean and orderly.
- Keep tools out of aisles and return to their proper storage place. You can prevent a serious accident by picking up tripping hazards.
- Provide adequate space for temporary storage of tools, supplies, and materials during processing.
- Containers shall be provided for collection and separation of all refuse. Covers shall be provided on containers used for flammable or harmful substances.
- Proper segregation of waste materials should be practiced to ensure opportunities for reuse or recycling.
- Store oily rags in approved containers to prevent spontaneous combustion and/or exposure to ignition sources.
- Throw all trash and scrap in the proper containers.
- It is the responsibility of each Rangeline Group employee to keep his/her assigned area as clean as possible. To ensure proper disposal or reuse, the employer must assign the responsibility for proper waste or scrap materials disposal to an employee either by title or position. Good housekeeping shall be maintained on a shift-to-shift basis.

End Of Policy

Hydrogen Sulfide (H2S)

Rangeline Group employees may be exposed to various chemicals or products in the workplace. All Rangeline Group employees shall be aware of the hazards posed by chemicals and shall be protected from any harm potentially caused by these hazards. Safety Data Sheets will be referenced for hazards and guidelines adhered to.

Characteristics of Hydrogen Sulfide

Hydrogen Sulfide is a colorless gas at atmospheric temperature and pressure. It has a foul odor, comparable to rotten eggs, in small concentrations but causes paralysis of the olfactory nerve within 60 seconds in higher concentrations. The paralytic effect of Hydrogen Sulfide on the sense of smell is a significant hazard. The odor threshold for H_2S is 0.13 parts per million (PPM). NOTE: Any workspace containing H2S is prohibited from entry. If work space suddenly contained H2S, work must be stopped and the space must be exited and evaluated immediately.

Additional Characteristics:

- Hydrogen Sulfide is approximately 20% heavier than air.
- H_2S forms an explosive mixture with air between 4.3% and 46% by volume concentration.
- H_2S is soluble in water: 2.9 volumes of gas per volume of water at 20° C. **NOTE:** Solubility decreases with an increase in temperature; consequently, the H_2S will be released from the oil or water.
- The IDLH (Immediately Dangerous to Life and Health) for H_2S is 100 PPM.
- The ignition temperature for Hydrogen Sulfide is 500° F.
- Sulfur Dioxide (SO_2) is a toxic byproduct of H_2S; SO_2 is created during the burning/flaring of H_2S. Sulfur Dioxide has a pungent odor and provides ample warning of its presence—the odor threshold is 3 PPM. In high enough concentrations, SO_2 is deadly.

Toxicity (Physiological Response):

10 PPM	Obvious and unpleasant odor; beginning eye irritation. **Permissible Exposure Limit (PEL) of 8 hrs.**
50-100 PPM	Slight conjunctivitis and respiratory tract irritation after **1** hour of exposure
100 PPM	Loss of sense of smell in 3 to 15 mins; altered respiration, coughing, and drowsiness after 15-30 mins followed by throat irritation after **1** hr.; symptoms will gradually increase with continued exposure, and death can result within 48 hrs.

200-300 PPM	Quick loss of sense of smell; sting in eyes and throat; respiratory irritation; DEATH within 2 hrs.
300 PPM	Immediately Dangerous to Life or Health (IDLH)
500 PPM	Dizziness; breathing ceases within a few mins; prompt rescue breathing mandatory; SELF-RESCUE IMPOSSIBLE due to loss of muscle control
700 PPM	Quick loss of consciousness

1000 PPM	Immediate loss of consciousness followed by death within minutes

NOTE: There is no evidence that repeated exposures to Hydrogen Sulfide result in accumulative poisoning, but repeated exposures to H2S do appear to cause some increases in susceptibility to the gas.

Potential for Exposure

In most industrial operations, sulfur compounds are undesirable components that have to be removed from the product. Below are several examples of which the atmosphere in the workspace could contain H2S.

1. **Drilling Rigs**

Some geographical areas are richer in sulfur deposits than others, but there is always a danger of drilling into pockets of gas that will enter the atmosphere. There is always a risk of H_2S escaping through a drilling hole, but other means of escape to consider are:

a. Recycled Drilling Mud because of the weak soluble properties of H_2S that are addressed above.

b. Water from Sour Crude Wells (for the same reason)

c. Blowouts

2. **Tank Gauging and Field Maintenance**

Work around tanks, pipeline and refining operations carries an inherent risk of exposure to H_2S. Hydrogen Sulfide will utilize the oxygen in CO_2 or water to create carbonic acid and eat through untreated, pitted or otherwise corroded steel. Although the necessary precautions should have already been taken, tank batteries, wells, pipelines and other such premises must be approached and worked in with an attentive regard for corrosion.

Casing, tubing, drill pipe, couplings and the like that are used around hydrogen sulfide should meet the standards as described in NACE STD MR-01-75: Standard material requirements sulfide stress cracking resistant metallic materials for oilfield equipment.

3. **Excavations or Trenches**

Some excavations or trenches have the potential of H2S to enter the trench via multiple routes.

a) Sewer man holes
b) Leaking or damaged sewer pipe

Exposure Prevention—Personal and Area Monitors/Alarms

All areas where there is a potential for exposure to Hydrogen Sulfide must be monitored. Although there are numerous types of monitors available (i.e. electronic, direct reading colorimetric tubes, wet chemistry and lead acetate methods), all monitors used for employee exposure prevention must adhere to the following:

1. All monitors should be portable, weighing no more than 10 lbs.

2. Monitors should provide a direct readout of hydrogen sulfide concentration in parts per million (PPM) by volume.

3. Monitoring equipment should be readily operable by all jobsite personnel.

4. All users should refer to or be trained on the material within the manufacturer's book before use.

5. At least one designated jobsite supervisor must be trained on the proper procedure to calibrate and reset area monitors, and employees that are issued personal monitors must be trained and equipped to calibrate and reset the issued equipment.

6. All portable monitors should contain integrated audible, visual or physical presentation alarms.

7. All monitors should be rugged, but should be protected from extreme conditions (i.e. Water, chemical sprays and abuse).

Only electronic monitors are suitable for standard jobsite safety; the personal and area electronic monitors issued on a job site must alarm when the PEL exceeds 10 PPM.

NOTE: The only breathing apparatuses authorized for use around Hydrogen Sulfide are NIOSH-certified self-contained breathing apparatuses or an airline respirator with an escape SCBA. Rangeline Group employees are not authorized to work in environments containing H2S

End Of Policy

Ladder Safety

1. Safety climbs that are installed on ladders attached to equipment must be used. Safety climbs have safety belt attachments that allow personnel to climb without detaching their safety belts after each step.

2. Rangeline Group ladders must be maintained in good condition. When portable ladders are used on hard surfaces, they must be equipped with nonskid footing or securely fastened to prevent slipping. The top of the ladder should be secured, or another person should hold the ladder. The base of the ladder should be placed away from the wall at a distance of about one foot for every four feet in height. Ladders will extend three feet past point of contact; if this is not feasible, the ladder must be secured at the top to a rigid support that will not deflect.

3. All permanent ladders must be securely fastened at both top and bottom. Long ladders should also be secured at intermediate points.

4. Rangeline Group ladders should be closely inspected when purchased or installed and re-inspected Quarterly. Check the condition of the ladder before it is used and correct any defects. The combined weight of the employee and load should not exceed the load limit of the ladder. Remove any oil, grease, or slippery material from the ladder and from the shoes.

5. ladders must not be painted.

6. Ladders must not be placed in front of doors that open toward the ladder unless the door is locked or guarded.

7. When climbing or descending a ladder, a person should face the ladder and hold the side rails, not the rungs. Climbers should not carry tools or other encumbrances in their hands. A tool belt or pouch should be used for holding small tools, and a hand line should be used to raise or lower heavy or bulky objects. When a climbing belt is supplied, the person ascending or descending the ladder must use it.

8. When working from a ladder, never extend farther than the arm's length to reach work. When working on a portable ladder, move the ladder to avoid the possibility of an accident.

9. No more than one person should be on a ladder at the same time where possible. If a job requires more than one person, a second ladder or a scaffold should be considered.

10. Never work on an unsecured ladder in windy conditions.

11. A person should not stand on the top two steps or the spreader of a stepladder.

12. A stepladder should not be used as a straight ladder unless specifically designed for that purpose (i.e. used while still folded).

13. It is a good safety practice for someone to hold or steady a stepladder for a person working near its top.

14. Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced, when the ladder is in position for use.

15. Ladders must be placed on a stable and level surface.

All Rangeline Group ladders will be inspected by a competent person for visible defects on a periodic basis and after any occurrence that could affect their safe operation. Any ladder that is deemed defective by the competent person is to be tagged and removed from the premises.

Portable and fixed ladders with structural defects, such as, but not limited to, broken or missing rungs, cleats, or steps, broken or split rails, corroded components, or other faulty or defective components, shall either be immediately marked in a manner that readily identifies them as defective, or be tagged with "Do Not Use" or similar language, and shall be withdrawn from service until repaired.

When performing l work that requires the use of a portable ladder, use approved fiberglass ladder. Metal (aluminum) ladders cannot be used.

When raising a ladder, make sure it will not contact an electrical line.

Extension ladders should properly overlap between sections.

Ladders must not be used as scaffold members or for any purpose for which they are not intended. Do not place ladders on top of boxes, barrels, crates, etc.

Unsecured portable ladders should not be left standing unattended.

Always use an approved ladder or stool to reach articles high above the floor. Never use a swivel chair or other makeshift device to reach high places.

End Of Policy

Lifting Equipment and Materials

Introduction

Different types of hoisting and rigging devices and lifting equipment may be used at Rangeline Group for lifting, pulling, and moving equipment. Only qualified and authorized individuals shall operate these devices. The safety rules and guidance in this program apply to all operations at Rangeline Group that involve the use of wire rope, slings, chains, and lifting equipment such as cranes and to all Rangeline Group employees and/or supplemental labor who use such devices. The company's Safety Personnel are responsible for the administration and periodic review of this program.

Employee Responsibilities

Supervisors are responsible for:

- Ensuring that employees under their supervision receive the required training and are competent in the use of equipment using wire rope and cable in their areas.
- Providing training for prospective operators in order to prevent property damage and injury.
- Evaluating trainees using the equipment and competency testing.
- Ensuring the equipment is inspected and tested as needed by a responsible individual and that rigging equipment is inspected monthly as well as prior to use.

Equipment Operators are responsible for:

- Operating lifting and pulling equipment safely
- Conducting functional tests prior to using the equipment
- Selecting and using rigging equipment appropriately
- Selecting the proper sling
- Properly storing all rigging so as to prevent damage
- Determining the sling capacity
- Learning sling configurations
- Identifying and evaluating sling deterioration
- Determining the proper size for slings and components
- Not using manila rope for rigging
- Making sure that shackle pins and shouldered eyebolts are installed in accordance with the manufacturer's recommendations
- Making sure that ordinary eyebolts are threaded in at least
  1.5 times the bolt diameter
- Using safety hoist rings (swivel eyes) as a preferred substitute for eye bolts wherever possible

- Removal of defective slings and cables from service and destroying or disposing of them to prevent inadvertent reuse
- Padding sharp edges to protect slings
- Slings, eyebolts, or hooks that been cut welded or brazed.
- Conducting periodic inspections of wire rope, shackles, eyes, sockets, etc.

Company Safety Personnel are responsible for:

- Conducting periodic inspections of wire rope, shackles, eyes, sockets, etc.
- Maintaining written records of inspections and tests, and placing copies of all inspections and test results in a file
- Inspecting equipment following modification or extensive repairs
- Conducting training for all equipment having wire rope and cables attached to them
- Periodically verifying monthly test and inspection reports
- Interpreting wire rope and cable safety rules and standards
- Removal of defective slings and cables from service and destroying or disposing of them to prevent inadvertent reuse
- Checking to ensure that all responsible parties are properly storing rigging and related hardware.

Safe Operating Requirements

All workers who use Rangeline Group equipment shall be deemed competent in its use: authorized employees who have been specifically trained in the operation and safety of the machinery/equipment.

General Safety Rules – Lifting Equipment and Materials

At the start of each work shift, operators shall do the following steps before using equipment having wire rope slings and/or cables attached to them:

- Visually inspect the wire rope, eyes and sockets as much as possible; in most instances, this will be done at the work site before starting the job.
- Never overload the lifting equipment or rigging—load capacities must be posted.
- Make certain there are no obstructions between the equipment and where the rope is attached.
- Make certain the pickup line is operating smoothly by lifting the equipment up and downward to verify that the line is in the sheave groove.
- Plan and check the travel path to avoid personnel and obstructions.
- Defective cables and slings shall be tagged out of service until properly repaired or disposed of. Disposal will consist of destruction of defective equipment. The inspector shall initiate corrective action by notifying their supervisor and or the safety department.

General Rigging Safety Requirements

Company policy requires wire rope slings to be rated with a minimum safety factor of 5 The following types of slings shall be rejected or destroyed:

Wire rope slings with

- Kinking, crushing, bird-caging, or other distortions
- Evidence of heat damage
- Cracks, deformation, or worn end attachments.
- Six randomly broken wires in a single rope lay
- Three broken wires in one strand of rope

Note: Rotation resistant rope has different strand break requirements; therefore, follow the manufacturer's requirements.

Alloy steel chain slings with

- Cracked, bent, or elongated links or components.
- Cracked hooks, shackles, eyebolts, turnbuckles, or other components that are damaged or deformed.

Inspections, Maintenance, and Testing

All tests and inspections shall be conducted in accordance with the manufacturer's recommendations.

Slings shall have appropriate test data when purchased. It is the responsibility of the purchaser to ensure that the appropriate test data is obtained and maintained.

Pickup lines that have been overloaded shall be removed from service..

Records

Rangeline Group Safety Personnel shall maintain records for all slings, cables, and other rigging equipment.

Rigging Storage

Sun, dirt, and wet conditions will potentially damage rigging equipment. When any lifting equipment is not being used, it shall be stored out of the elements. Rigging can be stored in storage compartments on equipment or designated storage cases, but must be removed from the immediate work area when not in use. Both the equipment operator and rigger are responsible for ensuring that all equipment is stored properly. Equipment will be thoroughly inspected before use. Certification of rigging should include the date of inspection, ID of the rope inspected, and the signature of the person performing the inspection. All damaged equipment will be made inoperable (destroyed) and removed from the work area. Failure to properly store rigging will result in employee sanctions.

Personnel Precautions

Personnel:

- Must be in the clear at all times
- Must not walk, stand, or work under suspended loads.
- Each person participating in the operation must
- **BE ALERT!!**
- Watch the crane block, sling and load, and

- Be able to move freely, if necessary.
- **Never ride on a load that is being hoisted.**

Operating Hoisting Equipment

A load must not be left hanging on the hoist any longer than necessary. When possible, use a hoist or crane to lift a heavy load, and always rig the hoist down and secure it after the work is completed.

While operating hoisting equipment, never place a part of the machine or load within fifteen feet, either laterally or vertically, of an energized power line. (See Power Line Restrictions) Never use hoisting equipment for lifting personnel, unless the equipment is certified, designed, and rated for that purpose. Personnel lifts must be accompanied by completing test and trial lifts per ANSI and OSHA standards.

Load Capacity

The manufacturer's maximum load specification for the hoist must be noted on the hoist. All operators of cranes, cherry pickers, and other lifting equipment must know the load capacities of the equipment they are operating; operators are forbidden to exceed the capacities of their equipment. Capacity charts, operating speeds and hazard signs must be posted by the controls so the operator can see them clearly.

Boom angle indicators must be permanently attached to the boom and functioning properly. Indicators must show the operating angle and corresponding radius.

Never overload the hoist by trying to lift objects that are heavier than the equipment is rated to lift, or by overextending the length of the boom.

Tag Lines

When safe to do so, tag lines must be used to control loads. Before a hook is moved, personnel using tag lines must inspect the lines for knots. Tag lines must not be wrapped around the employee's hand or wrist. The operator, signal person, and load handlers are responsible for ensuring that the load is never over any person.

Outriggers

USE YOUR OUTRIGGERS! Make sure outriggers are on firm timber or steel matting. Outriggers are better than rubber chocks.

Hooks

Hooks on all blocks, including snatch blocks, must have bolts or latches, which must be used each time a load is lifted. The only time bolts or latches are not mandatory is while lowering-in during pipeline construction.

An inspection of all hooks must be performed monthly. A record will be kept of all inspections and will include the date of inspection, the signature of the inspector, and the serial number or other identifier of the hook. Welding is not permitted under any circumstances on any part of the hook.

Handling Cable

Always maintain tension on the cable when reeling it in or out. Leather-palm gloves will be used when handling cables.

Hoist Rotation

For a hoist with **manual rotation,** ensure that the locking mechanism is working properly, and lock the hoist in the desired position before lifting the load.
Caution: The load can easily swing out of control if the hoist is not correctly locked.

Do not attempt to manually rotate a loaded hoist until all personnel are positioned clear of the load, and an adequate number of tag lines are in place.

A hoist with **power rotation** should be used, if available, for jobs that require horizontal positioning of a load after it has been picked up.

Signal Persons

A qualified signal person(s) must work with the hoist or crane operator when

- Personnel assisting with the load are out of the range of the operator's vision
- The moving load is out of the range of the operator's vision, or
- The person is charge of the lift determines it to be necessary.
- The appropriate ANSI standard signals will be used, and illustrations of the signals shall be posted at the job site.

Inspecting Hoisting Equipment

The hoist and its cable must be inspected before each use by a competent person, and if heavy loads are being lifted, then inspections must be performed throughout the day to ensure no problems arise.

All hooks on hoisting equipment should be visually inspected for cracks and twists before the equipment is used.

Lifting equipment of any kind must be inspected before each use by a competent person and a record of the results must be maintained. In addition, a monthly inspection of all hoisting equipment must be performed. An annual inspection must also be performed. A record of all inspections will be kept and will include the date of inspection, the signature of the inspector, and the serial number or other identifier of the equipment. Inspection records will remain with the equipment while it is assigned to a jobsite and forwarded to the administrative offices to be added to the equipment's file. Equipment must not be used if it is not working properly. All wire rope and chains must be taken out of service when wear or corrosion exceeds that allowed by the manufacturer's recommendations.

Inspecting Slings

Slings, fittings, and fastenings should be inspected before each use. Additional inspection must be performed throughout the day to ensure no damage has occurred. Inspections are to

be performed by a designated competent person, and should include each sling, the fastenings and attachments. Slings found to be defective must be destroyed.

Wire rope slings should be replaced if any of the following is observed during inspection:

- Ten randomly broken wires in one rope lay or five broken wires in one strand in one lay,
- Wearing or scraping of one-third the original diameter of outside wires
- Kinking, gouging, bird caging, or other damage, or
- Cracked or deformed end attachments.

Using Slings

- Pad or block sharp corners
- Lift and lower loads slowly
- Use the appropriate chart to ensure that slings of adequate capacity are used
- Know how much weight you are lifting.
- Do not use knots to make slings.
- Do not jerk loads.

Applying Wire Rope Clips

- Use the number and spacing of clips recommended in the following table.
- Make sure the U-bolts of all wire ropes are on the short (dead) end of the rope
- Tighten nuts evenly to the manufacturer's recommended torque
- Before lifting, be sure that all clips have been torqued.
- After several lifts, re-torque all clips.

Number and Spacing of U-Blot Wire Rope Clips

Imp. Plow Steel Rope	Drop Forged	Other Material	Min. Spacing
½ 3 4 3 5/8 3 4 3 ¾			
¾	4	5	4 ½
7/8	4	5	5 ¼
1	5	6	6
1 1/8	6	6	6 ¾
1 ¼	6	7	7 ½
1 3/8	7	7	8 ¼
1 ½	7	8	9

Requirements for Crane Operators/Cherry Picker Operators

Only designated personnel are authorized to use cranes; these persons must be certified through written and practical testing. The crane operator will not operate the crane until the

employees assigned to work with the load have explicit instructions and understand their function. The person responsible for the lift and the crane operator must jointly

- Check the load chart (load chart must be accessible to operator inside cab at all times and this chart must be legible)
- Check the boom length against the chart
- Establish the load weight and maximum operating radius, or
- Establish the corresponding minimum boom angle.

For cherry picker operations, transport loads at slow speeds on smooth, level surfaces with the boom over the front and swing lock engaged.

Fire Extinguishers

All hoisting equipment will be equipped with an ABC fire extinguisher.

Personnel will be familiar with Rangeline Group Fire Prevention policy and corresponding fire-related training.

Crane Inspections

Rangeline Group will utilize the specific crane manufacturer's inspection format found within the Operators Manual (including preventative maintenance). These inspections are to be completed pre-operational. Actually, the inspection continues the entire time the crane is operating. These inspections will be turned into Rangeline Group personnel responsible for equipment repairs. All cranes operated will be subject to a third-party inspection and these documents will be kept for record keeping purposes. The crane will not be operated, and will be tagged "Out of Order" if a deficiency is found that could prevent the safe operation of the crane. The crane operator is considered the qualified person that conducts the pre-operational inspections. Inspections are to be conducted on a monthly basis and are to include all critical components: brakes, crane hooks and ropes (see Wire Rope/Sling Inspection).

Wire Rope/Sling Inspection

All Rangeline Group employees will continually inspect lifting equipment—including running and all other ropes, alloy steel chain, wire rope, metal mesh, natural and synthetic fiber rope and synthetic web slings. The formal inspection program is as follows: (Note: These inspections will be kept for record keeping purposes.) Use inspection formats provided by the sling/lifting equipment vendor.

- Measured diameter of main rope
- Measured diameter of auxiliary rope
- Rope damage
- Sheave condition
- Drum condition
- Excessive wear (broken wires, rope corrosion, fitting condition)
- Chains (binding, cracked, twisted, excessive wear)
- Hooks (hardware loose, cracks, excessive wear, bent)

- Excessive stretch
- Slings (torn, safety thread exposed, worn end connections, rotten)
- Capacity table attached and legible

This inspection will show equipment type, number and capacity. Furthermore, the date of inspection will be logged. If equipment does not pass inspection, it shall be removed from the work area, and the report will show "Removed from Service". The equipment that does not pass will be destroyed. The inspector's name and signature will be entered at the bottom of inspection sheet.

Note: All equipment not in regular use will undergo a thorough inspection before returning to service. Lifting equipment will be stored inside, out of the weather.

Power Line Restrictions

Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines shall be operated so that a clearance of 10 feet is maintained between the energized source and the person and the longest conductive object he or she may contact.

General Rigging and Lifting Safety Requirements

1. All rigging and lifting equipment shall be stored and handled in a manner that protects the rigging structural integrity.
2. All rigging equipment will be inspected immediately prior to use per the manufacturer's recommendation. Furthermore, all rigging will be inspected monthly and these inspections will be documented
3. Do not damage the load being lifted with the lifting apparatus. Utilize padding for soft edges and establish any potential damage to equipment by previewing stress points created by lifting.
4. Protect slings from sharp edges. Never set loads down on slings but rather blocking.
5. Do not side load: this creates uneven stress points.
6. When picking a load, determine sling angle. Lifting equipment rated capacities are different when stressed at different angles.
7. Never stand or walk under a suspended load.
8. Never leave suspended loads unattended.
9. Flagmen and those persons lifting loads will use hand signals that are understood by parties. Radio communication is preferred over hand signals.
10. No person may rig a load to be lifted unless they have been properly trained.
11. Taglines will be utilized on lifted loads at all times.
12. Damaged rigging will not be used. "Damaged" is established by following manufacturer's guidelines.

13. If chains are used for lifting, they must be certified lifting chains and be tagged as to the capacity.

14. No one is permitted to make modifications or additions of any sort to lifting equipment which affects the safe operation of the equipment. Modifications may only be made with the manufacturer's written approval.

15. The load's weight will be known before lifting is conducted.

16. Attach cable clips properly. "Never saddle a dead horse." (The clip saddle should be on the load line)

17. Lifting eyes and points of attachment will match the structural integrity of the lifting equipment. Never wrap lines around a load to be lifted.

18. Whenever internal combustion engine powered equipment exhausts in enclosed spaces, tests shall be made and recorded to see that employees are not exposed to unsafe concentrations of toxic gases or oxygen deficient atmospheres.

19. An accessible fire extinguisher of 5 ABC rating, or higher, shall be available at all operator stations or cabs of equipment.

20. Operators must pass a written examination, understand and be able to use a load chart as well as calculate loads for the crane type of which they operate.

21. When operating with 3rd party crane companies, lift plans are to be completed by the 3rd party crane company to ensure the safety of the employees exposed to the hazards of handling the load.

    a When applicable, participate in pre-lift meetings to ensure the safety of the employees when exposed to the hazards when handling the load.

Different types of Cranes

All crawler, truck, or locomotive cranes in use shall meet the applicable requirements for design, inspection, construction, testing, maintenance and operation as prescribed in the ANSI B30.5- 1968, Safety Code for Crawler, Locomotive and Truck Cranes. However, the written, dated, and signed inspection reports and records of the monthly inspection of critical items prescribed in section 5-2.1.5 of the ANSI B30.5-1968 standard are not required. Instead, the employer shall prepare a certification record which includes the date the crane items were inspected; the signature of the person who inspected the crane items; and a serial number, or other identifier, for the crane inspected.

End Of Policy

Lock Out/Tag Out

Introduction

Lockout/Tagout (LOTO) is an energy isolation technique designed to prevent workers from being injured as a result of the unexpected activation of equipment.

Lockout/Tagout training shall be conducted at the time of hire and annually thereafter for all employees. This training is documented and the training shall cover the following topics:

- Recognition of hazardous energy sources
- Type and magnitude of energy available
- Methods and means necessary for energy control
- Affected/authorized employees (differences)
- Energy isolation procedures
- Re-training in case of new equipment or change in procedures
- New hazards

The training will also include an explanation of the limitations of tagout procedures (i.e. tags are warning devices and do not provide physical restraint), and the stipulation that tags shall only be removed by the person who installed them. Furthermore, each person will be trained on the requirement to abide by all tag-wording requirements.

Disregarding or tampering with tags is strictly prohibited.

Retraining is conducted at Rangeline Group whenever machines or processes change, there is a change in the energy control procedure, or a new hazard is introduced. An individual must also be retrained whenever he/she is assigned to a new job task for which different lockout/tagout procedures are utilized. The Rangeline Group Safety Department is responsible for all training and retraining.

Any training conducted will be documented. The employee's name and the date of training must be included in the documentation. This record will be maintained per the Rangeline Group Record Retention Policy.

An inspection and evaluation of the Lockout/Tagout procedures and policy shall be conducted annually by the safety department and supervisors.

Application of Lockout/Tagout

LOTO is necessary when service or maintenance is being performed on or around machinery that could cause injury with an unexpected startup or release of stored energy.
LOTO is typically required when:

- A guard or other safety device is removed or bypassed; or
- Personnel must place body parts where they could be injured by energized equipment.

Each person with the potential to be injured from the unexpected energization of the machine should place a lock and/or tag on each Energy Isolation Device.

An Energy Isolation Device is a mechanical device that physically prevents a transmission or release of energy; examples include:

- Manually operated electrical circuit breakers;
- Disconnect switches; and
- Blocks or any similar device used to block or isolate energy.

Push buttons, selector switches and other control circuit type devices are not Energy Isolation Devices.

Locks are safer than tags and must be used if possible. Tags may only be used if lockout is not possible, such as with most breakers. Tags are not as foolproof as locks and may evoke a false sense of security.

Only "Authorized Persons" who have been trained in the company's LOTO program, are allowed to perform LOTO.

Locks and Tags

- All locks, tags, and fixtures must be supplied free-of-charge by the employer, and they must be standardized within the company.
- Tags must contain a warning statement, such as "do not operate", and be substantial enough to prevent accidental removal.
- The means of attachment for a tag must be a non-reusable, self-locking, nylon cable tie capable of resisting 50# of force.
- Locks must be substantial enough to prevent removal without excessive force.
- The locks and tags designated by the company for LOTO cannot be used for any other purpose. . .
- Keyed locks are preferable to combination locks because they are more tamper-resistant.
- Both locks and tags must be durable and capable of withstanding the environment in which they are used.
- Locks and tags must be capable of identifying the person who applied the device. When a lock is used with a tag, the function of the tag is usually to identify the person who applied the lock.

Hazardous Energy Control

LOTO is energy control and it applies to all forms of energy, not just electricity.

In order to effectively isolate equipment, workers must be able to recognize all the energy associated with it.

Energy can take two basic forms: **Kinetic and Potential.**

Kinetic energy is the energy associated with motion, and it is not usually involved in LOTO accidents because it is easily recognized.

Potential energy is stored energy and is sometimes difficult to recognize. Forms of potential energy include:

- Electricity
- Magnetism
- Compressed gas
- Pressurized liquids
- Heat
- Corrosive chemicals
- Gravity
- Springs under tension
- Steam

Equipment is likely to contain or use several forms of energy, and in some cases, equipment may utilize a single form of energy from multiple sources.

Applying Controls

Only a trained individual, who is referred to as an "Authorized Person," is permitted to apply LOTO devices. He or she must affix them to every energy isolating device. Before the lockout/tagout is applied, all "Affected Persons" must be notified. An "Affected Person" is an individual whose job requires him to:

- Operate a machine or piece of equipment that is being serviced or repaired under lockout/tagout

- Work in an area in which such servicing or maintenance is being performed. OSHA requires that lockout/tagout be performed according to the following six-step procedure:

    1. Preparation for shutdown
    2. Equipment shutdown;
    3. Equipment isolation;
    4. Application of lockout/tagout devices;
    5. Control of stored energy;
    6. Equipment isolation verification.

Preparation for Shutdown

During preparation for shutdown, the "Authorized Person" must:

- Obtain permission to work on equipment.
- Obtain written LOTO procedures.
- Have knowledge of the type and magnitude of the energy.
- Know the hazards of the energy to be controlled.
- Be aware of the methods or means to control the energy.
- Identify location of energy isolation devices.
- Inform "Affected Persons"; and

- Obtain appropriate LOTO hardware.

During equipment shutdown, the “Authorized Person” must turn off equipment according to the manufacturer's recommended shutdown procedures. It is imperative that every precaution be taken, including but not limited to those listed above, to insure that no additional or increased hazard results from the stoppage of equipment.

During equipment isolation, energy isolation devices are placed in the off or closed position. Lockout devices must be affixed in a manner that will hold the energy isolating device in a safe or off position. Fixtures may be necessary to hold the energy isolation device in the off position, or, where applicable, to allow the connection of multiple locks. ***While applying lockout/tagout devices, the Authorized Person is required to ensure that a lock or tag is placed on each energy isolation device.***

When tags are used in place of locks, the tag must be attached to the same place a lock would be placed if a lock were available. In addition, when a tag is used because the device is not lockable, the tag must be affixed in a position that will be immediately obvious to anyone attempting to operate the affected device, so that employees are alerted to the danger and to ensure that no one can accidentally energize the device. Affix the tag as close to the device as is safely possible.

During the control of stored energy, stored energy must be released, and the equipment is configured so that it cannot be reenergized or started.
Prior to starting work on machine or equipment that have been locked or tagged out, the authorized employee shall verify that isolation and de energization of the machine or equipment have been accomplished. During equipment isolation verification, an attempt is made to start equipment using the normal operating controls, and isolation is verified with instrumentation, such as a voltmeter, if possible.

Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained and otherwise rendered safe. If there is a possibility of re-accumulation of stored energy level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

Written Lockout/Tagout Procedures

OSHA requires special written lockout/tagout procedures for each piece of equipment, unless any of the following conditions are met:

- The machine has no potential storing or re-accumulation of energy while shutdown;
- The machine has a single energy source which can be readily identified and shutdown;
- Isolating and locking out the energy source will completely de-energize and deactivate the machine;
- The machine is completely isolated from the energy source during maintenance;
- The lockout device is under the exclusive control of the authorized employee performing the maintenance;
- Servicing or maintenance does not create hazards for other employees; and
- No accidents involving the unexpected activation or energization of the machine during maintenance or servicing have occurred.

OSHA considers a LOTO Work Permit to be a written procedure.

When an isolation device must be temporarily removed, the following procedure must be followed:

1. Clear away tools
2. Remove employees
3. Remove the LOTO device
4. Energize and proceed with testing
5. De-energize and re-apply control measures
6. Document who performed the procedure, and the reason it was performed

Removal of Lockout/Tagout

Under normal circumstances, only the "Authorized Person" who applied the energy isolation device may remove the lock and/or tag.
If the person who applied the lock or tag cannot be located, a specially designated supervisor may remove the device. The supervisor must verify that it is safe to remove the lock or tag and notify all the "Affected Persons" that it has been removed.

The "Authorized Person" who applied the lock or tag that was removed by the supervisor must be notified immediately upon their return to the workplace.

Group Lockout

When large numbers of workers are involved in an activity that requires lockout, it is possible to use Group Lockout.

A Group Lockout is accomplished by:

1. The designated supervisor locking out all energy isolation points with their individual locks;

2. The designated supervisor placing the key to each in a lockbox; and

3. Each "Authorized Person" attaches his/her lock to the lockbox.

This procedure provides the equivalent protection of an individual lock on each energy isolation point for each "Authorized Person."

The authorized person that is supervising a group of employees who are working under a group lockout/tagout must ascertain the exposure status of the group members. Each employee working under the guidelines of the group lockout/tagout should affix his/her own energy isolating device to the group's larger device while he/she is affected by it, and then remove his/her individual device once he/she is no longer affected (i.e. at the end of a shift). During shift change or personnel change specific procedures must be set to ensure the continuity of the lockout/tagout and it must be documented.

Shift Changes

A procedure to ensure that equipment remains locked or tagged out during shift changes is mandatory. At Rangeline Group Management, only the authorized person who applies the lock is authorized to remove it.

Contractors

Rangeline Group host facilities and employees will coordinate their LOTO programs so that everyone is protected, at all times. This is usually done during pre-job meetings.

Training

The training must include recognition of hazardous energy source, type and magnitude of energy available, methods and means necessary for energy isolation and control. Each authorized employee shall receive adequate training. The training should address that all affected employees are instructed in the purpose and use of the energy control procedure. There should be training provisions included for any other employee whose work operations are or may be in an area where energy control procedures may be utilized.

The employee training should also address when tagout systems are used including the limitations of a tag (tags are warning devices and do not provide physical restraint). The training should also include that a tag in not to be removed without authorization. The tag is never to be ignored or defeated in any way.

Retraining is required when there is a change in job assignments, in machines, a change in the energy control procedures, or a new hazard is introduced.

All training and/or retraining must be documented, signed and certified.

Annual Review

The Rangeline Group Safety Department will conduct an annual review of the Lockout/Tagout program. The inspection must be performed by someone who is not responsible for the execution of the program. The inspection must be documented, and following information must be reported: the date of inspection, equipment inspected, lockout/tagout devices reviewed, names of employees both authorized and affected, and the name of the inspector. The annual review will follow' the policy requirements. The results of this inspection shall be shared with those persons responsible for implementing or enforcing policies and procedures. If an immediate safety concern is noted, actions must be taken to ensure the safety of both affected and authorized employees. Policy changes and/or enforcement protocols will be implemented as necessary.

End Of Policy

Motor Vehicle Safety—Safe Driving Practices

General

1. Operate Rangeline Group vehicles in a defensive, alert manner. Try to anticipate what might occur, the existing conditions and drive to avoid potential hazards.
2. Be considerate of, and courteous to, the traveling public and pedestrians. Yield the right of- way to avoid accidents.
3. Drive at speeds consistent with existing conditions, such as weather, ranging cattle, and so on.
4. The use of intoxicating liquor, illegal drugs, over-the-counter medicines or certain prescriptions is strictly prohibited while operating a company vehicle.
5. The laws of the various jurisdictions prohibit parking on any highway outside of the city limits. Never stop in the center of the road. Always pull over to one side before stopping. If a breakdown occurs at night and the vehicle lights go out, protect the truck with appropriate signals until aid is secured.
6. Before stopping or attempting to turn, always give proper signal to vehicle approaching from rear.
7. The driver must look both ways before crossing railroad tracks and should put the truck in low until the tracks are crossed.
8. The driver must stop and look in both directions before driving onto a major highway from a minor road.
9. The driver must slow down and sound horn of the vehicle when approaching a blind curve.
10. Drive as close to the right-hand side of the road as safety permits.
11. Do not fail to slow down the moment children are seen on the sidewalk or roadway. Drivers must observe school bus laws.
12. Keep rear-view mirror in good condition and use it for purposes intended. Make it as easy as possible for the approaching traffic to pass by staying in the lane as much as possible.
13. Cargo must be firmly immobilized or secured on or within a vehicle by structures of adequate strength, dunnage, shoring bars, tie downs or a combination of these.
14. Loads shall not exceed the manufacturer's specifications and legal limits for the vehicle.
15. The drivers of all trucks loaded with men or materials, when starting down a steep hill, shall shift gears to such a position as is necessary to insure complete control.
16. Truck and car drivers must report all accidents involving personal injury or property damage to their Supervisor immediately.
17. Only authorized employees will drive a motor vehicle in the course and scope of work or operate a company-owned vehicle.
18. Drivers must have a valid and current license to operate the vehicle. Drivers must be appropriately assessed, licensed, and trained to operate the vehicle.
19. The vehicle shall be fit for the purpose, and shall be maintained in safe working order.
20. Any person driving or riding in the vehicle must wear a safety belt.

Backing

- Look for a parking space where backing is not required.
- When backing is required:
  - Check to be sure that the path is unobstructed
  - Use a backer when necessary
  - Continually check clearances while backing
  - Back slowly

Rangeline Group will not use any motor vehicle equipment having an obstructed view to the rear unless:

- The vehicle has a reverse signal alarm audible above the surrounding noise level
- The vehicle is backed up only when an observer signals that it is safe to do so.

Turning

- When driving trucks with trailers or other long equipment, allow enough space to make the turn. Use the street you are turning onto as extra space, swinging wide, if necessary, to complete the turn.
- When turning a truck or long equipment into a narrow street or alley, try to approach it so you will be making a left turn, rather than a right turn.

Following

- Maintain extra space around the vehicle at all times to help prevent accidents.
- Leaving ample space around the vehicle allows more time to react to conflicts or other changing conditions.
- This extra space should take into account traffic, icy roads, and other driving conditions.
- All trucks operating in convoy must travel a minimum of 300 feet apart.

Parking

Employees should never back into traffic, so either select a parking space that permits you to pull forward out of the spot, or back into your parking space. If backing is necessary, follow the guidelines for backing listed in this program.

- Park vehicles where they do not present a hazard to other traffic.
- Park vehicles with ignition turned off, hand brake set, and transmission placed in park or a low gear. Use extra caution when parking on hills. Turn the front wheels to the curb/bank or place chocks under rear wheels.

- The person in charge may authorize the vehicle to be parked with the motor running and the hand brake set when necessary to operate power take-off, electric, or communications equipment for periods of time that would run down the vehicle battery. In these cases, select a level parking place, if available. In all cases, chock blocks must be set.

Breakdown

- If your vehicle breaks down, guide it completely off the main roadway, if possible.
- If it is necessary to tow equipment, do not stand between a towed vehicle and the towing vehicle.
- Place warning devices between the vehicle and traffic.

Accidents

- Report all accidents and traffic violations while on company duties to direct report and Safety Dept immediately.
- All accidents involving Rangeline Group vehicles must be reported immediately.
- In case of a vehicle accident, the employee driving must:
  - Pull off the road, if possible, to avoid obstructing traffic.
  - Render aid to any injured persons
  - Place warning reflectors on the road, as necessary.
  - Report the accident to your direct report, safety department and to law officers as soon as possible.
  - If a vehicle accident involves the public, do not argue with other persons involved, and DO NOT admit liability or offer to settle claims.

Distracted Driving

- Employees must utilize hands-free devices whenever possible. If it is necessary to operate an electronic device (computer, PDA, or cell phone, etc.) while operating a vehicle or other piece of equipment, pull to the side of the roadway, or cease operating the equipment.

- Employees are prohibited from carrying anyone other than Rangeline Group employees in company vehicles, unless expressly permitted by management.

- Conversation, the radio, and any other audible distraction must be maintained at a reasonable volume such as to prevent a distraction to the driver.

- If a driver becomes excessively fatigued while operating a vehicle or other piece of equipment, he/she must either relinquish control of the equipment, or take a break and recuperate.

- Operators of any equipment are expected to mitigate any distractions while operating equipment. If an operator is unable to alleviate a distraction, and he/she believes his performance is hindered, he must report the situation to a supervisor.

Fleet Safety Policy

Rangeline Group Policy Statement

The purpose of this policy is to ensure the safety of those individuals who drive for Rangeline Group. Vehicle accidents are costly to our company, but more importantly, they may result in injury to you or others. It is the driver's responsibility to operate the vehicle in a safe manner and to drive defensively to prevent injuries and property damage. As such, Rangeline Group endorses all applicable state motor vehicle regulations relating to driver responsibility. Rangeline Group expects each driver to drive in a safe and courteous manner pursuant to the following safety rules. The attitude you take when behind the wheel is the single most important factor in driving safely.

Driver Eligibility

1. Rangeline Group drivers must have a valid driver's license for the type of vehicle to be operated and keep the license(s) with them at all times while driving. All CDL drivers must comply with all applicable FMCSA (DOT) regulations, including successful completion on medical, drug, and alcohol evaluations

2. Rangeline Group vehicles are to be driven by authorized employees ONLY, except in emergencies, or in case of repair testing by a mechanic. Other employees and family members are not authorized to drive the Company vehicle

3. If an employee is to pull a trailer, a skills test must be passed and documented prior to pulling a trailer.

4. Rangeline Group vehicles are to be driven for Company Business ONLY. Personal use of company vehicles is prohibited. Variance from this policy must be approved by a vice president or higher of the company in writing.

5. No unauthorized persons are allowed to ride in company vehicles.

6. Any employee who has a driver's license revoked or suspended shall immediately notify Rangeline Group. and discontinue operation of the company vehicle. Failure to do so may result in disciplinary action, including possible termination.

7. All accidents involving Rangeline Group vehicles, regardless of severity, must be reported to the police and to Rangeline Group. Failing to stop after an accident and/or failure to report an accident will result in disciplinary action, including termination of employment.

8. The use of a Rangeline Group vehicle while under the influence of intoxicants and other drugs is forbidden and will result in immediate termination of employment.

9. All drivers and passengers operating or riding in a Rangeline Group vehicle must wear seat belts, even if air bags are available.

10. Authorized Personal Vehicle Use - In the event that a Rangeline Group. employee is involved in an accident while driving his/her own vehicle on company business, Rangeline Group may be liable if you do not have insurance or if the loss exceeds your personal policy limits. Employees who are authorized to use their personal vehicles for company business are required to carry adequate limits of liability, with a required minimum of $1,000,000 for property damage and $300,000 for bodily injury. A copy of the declaration page of your personal automobile insurance policy must be provided to Rangeline Group annually at your renewal date.

Motor Vehicle Records Review

Motor Vehicle Records will be ordered periodically to assess driving records. An unfavorable record will result in the loss of company vehicle driving privileges or employment. The following criteria and method of evaluation for all prospective and current Rangeline Group drivers' MVRs will be used. All company drivers will be required to sign an authorization for Rangeline Group to periodically review your Motor Vehicle Record to determine continued eligibility to drive a company vehicle.

Unacceptable driving records:

1. **One (1) or more type 'A' Violations (as defined below) in the past 5 years**
2. **Two (2) or more at-fault accidents in the last 3 years.**
3. **Three (3) or more 'B' violations (as defined below) in the past 3 years.**

Driving records needing additional monitoring:

1. **Any driver with two moving Type B violations or one (1) accident in the three year period will be put on warning and per the discretion of Rangeline Group Management, *MVRs may be ordered more frequently on these drivers*.**

Type 'A' Violations:

1. **Driving While Under the Influence of Alcohol or Drugs**
2. **Refusing to take a substance test**
3. **Driving with an open container (alcohol)**
4. **Reckless / Careless driving**
5. **Speeding: In excess of 14 mph over posted limit**
6. **Driving while texting**
7. **Hit and run**
8. **Fleeing or evading police or roadblock**
9. **Resisting arrest**
10. **Racing/Speed contest**
11. **Driving with license suspended or revoked**
12. **Vehicular assault**
13. **Homicide or manslaughter or using vehicle in connection with a felony.**

Type 'B' Violations:

All Moving Violations not listed as type 'A' Violations.

Refueling Guidelines

Vehicles should be refueled when the meter reads ¼ full. For your safety when operating a vehicle, follow these guidelines:

- Turn off the vehicle's engine while refueling.
- Never smoke, light matches or use lighters while refueling.
- Do not get into the vehicle during refueling, as this presents a flash fire hazard.
- Do not overfill or top off the vehicle's fuel tank. The fuel dispenser shuts off automatically when the tank is full.
- Never force the hold-open latch on the gasoline pump with any means other than the latch provided.

Vehicle Tracking and Monitoring:

Rangeline Group uses Samsara to track and monitor all company vehicles. Managers are able to monitor the speed all vehicles are traveling, as well as the vehicles' locations and mileage.

Cargo

Any cargo on or in motor vehicles must be adequately stored and secured to prevent unintentional movement of the equipment which could cause spillage, damage to the vehicle, or injury to the operator.

Preventive Maintenance:

To maintain the safety and integrity of the vehicle, Rangeline Group will provide the necessary resources to ensure all vehicles are operating properly.
Pre-use inspections should be performed before operating a vehicle. This consists of a walk-around the vehicle to check for any defects to the vehicle and ensure there are no barriers blocking the path.
All routine motor vehicle maintenance will be done according to the manufacturer's specifications. Critical components that must always be controlled, maintained and promptly repaired are: brakes, tires, suspension, steering, lights, mirrors, windows and windshield wipers.

Cell Phone Use Policy

Rangeline Group employees may not drive any vehicle on company business using a laptop computer or any two-way communicative device including cell phones, PDAs, I-Pads, etc. while driving, unless the device is **"hands-free"**. Otherwise, these devices should only be used if the employee has pulled off the road in a safe area, or by passing the device to a passenger for use. In the case of vehicles occupied by only the driver, in accordance with DOT regulations, Direct Connect devices may be used to answer calls provided the driver is able to operate the device with a single touch to the button needed to operate the push-to-talk feature and do so from the normal seated position with the safety belt fastened. Navigation or directional equipment may not be used

unless it has oral communication capability, and the screen is placed in a safe location so it can be seen without looking away from the road.

Accident Investigation Procedures:

Rangeline Group realizes some accidents are unpreventable. Accidents must be reported immediately to Safety and Management. Drivers should seek medical attention immediately, if necessary. Supervisors and drivers will be trained in post-accident procedures to secure the details of the accident and document the damage. Providing detailed facts of the accident will help our insurance carrier deter fraudulent third-party insurance schemes.

Drug/Alcohol Testing:

Initial and periodic random drug and alcohol testing is mandatory. Testing will be conducted by a licensed medical facility designated by Rangeline Group. Any positive results will be grounds for termination. Driving under the influence of alcohol or any other illegal substances will be grounds for termination.

Samsara Dash Cameras

POLICY STATEMENT
This policy sets out the position of Rangeline Group (Rangeline Tapping Services, Rangeline Pipeline Services, Rangeline Utility Services, R&M Service Solutions, and Cryostop) on the use of on-board incident capture devices dashboard cameras in vehicles and its effect on employees.

PURPOSE AND SCOPE
The primary uses of dashboard cameras are to assist in the protection, safety of persons, property, prevention or detection of criminal offenses, defense of legal claims, and most importantly, driver training.

PRINCIPLES
The following principles apply:

- Dashboard cameras will be installed when appropriate in company vehicles, (i.e., pickups, trucks & tractors).
- Dashboard cameras are set up in a way that ensures that there is minimal intrusion of privacy, and that any intrusion is fully justified. All drivers are aware if there is a dashboard camera in their vehicle.
- No images and information will be stored except where a relevant incident(event) has occurred.
- Access to retained images and information will be restricted, with clearly defined rules to Designated Responsible Persons (DRPs) who can gain access.
- The dashboard cameras cannot be accessed covertly to monitor the quality and amount of work completed by employees. However, where an incident is captured that reveals inappropriate conduct that cannot in good conscience be ignored, Rangeline Group reserves the right to process in the business interests. This may include grievance, or disciplinary

proceedings, defense or litigation of a legal claim, and driver training. When relevant to do so, dashboard cameras footage may be retained and used for future health and safety training, including the improvement in safety quality and training of drivers. By signing this form, you are acknowledging and consenting to Rangeline Group using footage for safety quality and training.

- The view of the dashboard cameras shall not be blocked. This means that the dashboard camera needs a clear view of the driver. Drivers are not to obstruct the view by any means. Hanging items such as hats, masks, or key chains are strictly prohibited. Employee's failure to comply is subjected to discipline, up to and including termination.

- Recorded images and information will be subject to appropriate security measures to safeguard against unauthorized access and use.

DASH CAM RECORDINGS

Access is approved on an incident-by-incident basis. Once access is approved by the Designated Responsible Person, recorded footage can be reviewed (not deleted or amended) by:

- Safety Compliance Manager
- Directors
- Management
- Statutory bodies such as Police, HSE, etc.

Any other person with interest must obtain authority from the Director of Safety & Compliance to view recorded footage, providing reasons and justification. Any persons whose images are recorded has a right to view those images, and to be provided with a copy of those images, within one month of making a written Subject Access Request. Availability of images will be subject to the retention period. Employees making such a request should do so in writing, providing the relevant time and date of the image, so that they may be easily identifiable.

EMPLOYEES

As stated, the primary uses of dashboard cameras are to assist in the protection and safety of persons and property, prevention or detection of criminal offenses, defense of legal claims and driver training. However, when dashboard cameras are deployed, they are likely to capture pictures of employees and workers.

In accordance with the principle at 3(e) above, dashboard cameras evidence may be used as part of an employee investigation where, in the reasonable belief of management, that there may have been misconduct, or a breach of health and safety. In such cases the footage must be requested by the Safety Director.

Where footage is used in disciplinary proceedings, it will be retained for a further period of up to five years. The employee will be permitted to see and respond to the images, in addition to the employee's right to request a copy, which will be provided within one month.

Under appropriate circumstances the footage may be provided to police (or other competent authority) with the intention to prosecute for criminal offences. In defense of legal claims, or in

pursuance of civil recovery, footage may also be provided to our legal representatives with the intention of providing evidence before the courts.

NON-EMPLOYEES

Where an incident involves a third party, the relevant insurers will be informed of the details. Although the third party may be made aware that there is recorded evidence in the form of dashboard camera footage, a copy of the recorded material can only be obtained if requested by the subject themselves. Third parties should also be aware that under appropriate circumstances the footage may be provided to Police (or other Competent Authority) with the intention to prosecute for criminal offences. In defense of legal claims, or in pursuance of civil recovery, footage may also be provided to our legal representatives with the intention of providing evidence before the courts.

COMPLAINTS

Complaints about the operation of the dashboard cameras should be addressed initially to your immediate supervisor.

MONITORING AND REVIEW

This policy will be regularly reviewed if there is a policy need or legislative change. This policy does form part of employees' terms and conditions of employment and may be subject to change at the discretion of Rangeline Group.

DISCIPLINARY ACTION

Disciplinary action up to and including termination of employment will be taken against any employee who is involved in any of the following actions. (This is not an all-inclusive listing. Any disciplinary action will be judged on its own character and at the sole discretion of company management)

A. Destroying, dismantling, or unplugging the camera (device).

B. Deliberately blocking the view of the camera inside the cab or outside the cab of the vehicle. This will include clothing items, tape, sun visor, in accordance with the principles of section 3 above.

C. Exhibits unsafe behavior that endangers the lives of other workers and the traveling public.

End Of Policy

Occupational Noise Exposure Program

General

Rangeline Group employees are not normally exposed to high levels of sound. However, we will ensure that the noise hazards within our facilities, jobsites and those that we inspect are evaluated, and that information concerning the hazards of noise exposure is transmitted to all employees.

Responsibility

The company Safety Director is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure the success of the program. Rangeline Group has expressly authorized all employees to halt any operation that poses any danger of serious personal injury.

Objective

When employees are subjected to sound levels equaling or exceeding the 8-hour time-weighted average of 85 dB, Rangeline Group will administer or have administered by qualified personnel, audiometric examinations, obtain valid audiograms, and ensure proper controls are reviewed and implemented where feasible. If such controls fail to reduce sound levels to within the levels listed above, personal protective equipment will be provided at no cost to the employee.

Training program

Rangeline Group will institute a training program for all employees who are exposed to noise at or above an 8-hour time weighted average of 85 decibels, and will ensure employee participation in such program.

The training program will be provided to employees before assignment and repeated annually for each employee included in the hearing conservation program. Information provided in the training program will be updated to be consistent with changes in protective equipment and work processes. Each employee will be informed of the following:

- The effects of noise on hearing.
- The purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care.
- The purpose of audiometric testing, and an explanation of the test procedures.
- Access to information and training materials. This employer will make available to affected employees or their representatives' copies of this standard practice instruction and
  29 CFR 1910.95, and will also post a copy in the workplace.

This employer will provide affected employees any informational materials pertaining to 29 CFR 1910.95 that are supplied by OSHA.

Personal Protective Equipment (PPE)

This employer will make hearing protectors available to all employees exposed to an 8-hour time weighted average of 85 decibels or greater at no cost to the employees. Furthermore, hearing protectors will be replaced whenever necessary at no cost to the employee.

This employer will ensure that hearing protectors are worn:

- By any employee who is required by previous testing to wear personal protective equipment.
- By any employee who is exposed to an 8-hour time weighted average of 85 decibels or greater, and who: has not yet had a baseline audiogram established, or has experienced a standard threshold shift.

Employees will be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors provided.

Training shall be updated consistent to changes in PPE and work processes and include the proper techniques of wearing hearing protection.

This employer will provide training in the use and care of all hearing protectors provided to employees.

This employer will ensure proper initial fitting and supervise the correct use of all hearing protectors.

Environment Specific PPE

This employer will evaluate hearing protector attenuation for the specific noise environments in which the protector will be used.

Selected hearing protectors will attenuate employee exposure at least to an 8 hour time weighted average of 90 decibels.

For employees who have experienced a standard threshold shift, selected hearing protectors must attenuate their exposure to an 8-hour time weighted average of 85 decibels or below.

The adequacy of hearing protector attenuation will be re-evaluated whenever employee noise exposures increase to the extent that the hearing protectors provided may no longer provide adequate attenuation. More effective hearing protectors will be provided where necessary.

Baseline Audiogram & Auditory Testing

Within 6 months of an employee's first exposure at or above the action level, Rangeline Group Management will establish a valid baseline audiogram against which subsequent audiograms can be compared. Rangeline Group will obtain a valid baseline audiogram within 1 year of an employee's first exposure at or above the action level. Where baseline audiograms are obtained more than 6 months after the employee's first exposure at or above the action level, employees will wear hearing protectors for any period exceeding six months after first exposure until the baseline audiogram is obtained.

Testing to establish a baseline audiogram will be preceded by at least 14 hours without exposure to workplace noise. Hearing protectors may be used as a substitute for the requirement that baseline audiograms be preceded by 14 hours without exposure to workplace noise.

This employer will notify employees of the need to avoid high levels of non-occupational noise exposure during the 14-hour period immediately preceding the audiometric examination.

When information indicates that employee exposure may equal/exceed the 8-hour time weighted average or 85 decibels, a monitoring program shall be implanted to identify employees to be included in the hearing conservation program.

Each employee's annual audiogram will be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift has occurred. This comparison may be done by an individual trained to technician level. If the annual audiogram shows that an employee has suffered a standard threshold shift, a retest will be administered within 30 days and the results considered as the annual audiogram.

If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift has occurred, the employee will be informed of this fact in writing, within 21 days of the determination.

A standard threshold shift is a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000, and 4000 Hz in either ear.

Unless a physician determines that the standard threshold shift is not work related or aggravated by occupational noise exposure, this employer will ensure that the following steps are taken when a standard threshold shift occurs:

1. Employees exposed or potentially exposed to high noise will be fitted with hearing protectors, trained in their use and care, and required to use them. For known high noise job assignments, employees will be fitted and trained prior to job assignment.

2. Employees already using hearing protectors will be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary.
3. Employees will be referred for a clinical audiological evaluation or an ontological examination, as appropriate, if additional testing is necessary or if it is suspected that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.

4. Employees will be informed of the need for an ontological examination if a medical pathology of the ear that is unrelated to the use of hearing protectors is suspected.

Recordkeeping

This employer will maintain an accurate record of all employee exposure measurements.

This employer will retain all employee audiometric test records. This record will include as a minimum:

- Name and job classification of the employee.
- Date of the audiogram.
- The examiner's name.
- Date of the last acoustic or exhaustive calibration of the audiometer.
- Employee's most recent noise exposure assessment.
- This employer will maintain accurate records of the measurements of the background sound pressure levels in audiometric test rooms.

This employer will retain audiometric and related records for at least the following periods.

- Noise exposure measurement records will be retained for two years.
- Audiometric test records will be retained for the duration of the affected employee's employment.

All records cited in this standard practice instruction will be provided upon request to employees, former employees, representatives designated by the individual employee, and representatives of OSH A. The provisions of 29 CFR 1910.20 apply to access to records under this section.

If this employer ceases to do business, the records will be transferred to the successor employer and maintained by the successor employer. Should the company cease to function entirely the records will be provided to the respective employees, or as required by current law.

End Of Policy

NORM (Naturally Occurring Radioactive Material)

Naturally Occurring Radioactive Materials (NORM) are present in oil and gas operations at some locations and can collect, usually in the form of scale, in well tubulars, surface piping, vessels, pumps and other processing equipment. The presence of NORM in equipment above regulatory levels can be determined by external radiation measurements. Although external radiation is seldom at levels considered to be hazardous to personnel, when equipment is opened for inspection or repair, NORM can be inhaled or ingested, subjecting an employee to exposure to radioactivity. To prevent exposure to internal radiation, Rangeline Group employees must follow the clients' Worker Protection Plan when opening NORM-contaminated equipment or piping.

Rangeline Group does not own any equipment or process that would produce NORM; therefore, Rangeline Group employees must follow the clients' procedures for NORM potential. In addition, it is the responsibility of the Safety Manager or his designee to ensure that this program is implemented, and the facilities in which employees are stationed are compliant with **16 Texas Administrative Code (TAC), Title 16, Part 1, Chapter 4, Subchapter F**
(paying particular attention to Rules §4.605 and §4.608). In the event that a jobsite is outside of the state of Texas, the regulations adhered to must be at least as stringent.

Rangeline Group will not work on a NORM-contaminated location until testing has been completed, by the client, and the degree of contamination, source, and applicable risks are determined. A Ludlum NORM meter, or its equivalent, must be utilized for testing, and the levels for the respective geographic area referenced to establish a comparison of the levels.

Training

Rangeline Group employees will not enter a NORM-contaminated location or vessel until they have satisfied the necessary training and licensing requirements. The training curriculum must include the following:

1. A comprehensive explanation of Naturally Occurring Radioactive Materials (NORM)— including a list of the radionuclides (sources) that may be present, such as Uranium, Thorium or Radium.
    a. Review of Title 16, Part 1, Chapter 4, Subchapter F Oil and Gas NORM.
    b. Review of 25 Texas Administrative Code§289.57 (TRCR Part 46)Licensing of NORM Texas regulations for Control of Radiation
    c. 25 Texas Administrative Code §289.202 Standards for Protection Against Radiation from Radioactive Material
2. The hazards related to NORM.
3. The locations where exposure may occur—including Technology Enhanced NORM (TENORM) and the facilities and processes where they are most prevalent (mineral extractions and refining, hydrocarbon production, and water treatment, etc.).
4. Methods to identify NORM contamination.
5. Techniques to protect oneself from exposure to NORM once contamination is identified.
   At least three techniques should be addressed in training:
    a. Time
    b. Distance

c. Shielding
d. A thorough explanation of the benefits of personal hygiene in relation to exposure prevention.
e. PPE—including HEPA filters on respirators and limitations)

****NOTE:** The mandatory training outlined here is general in nature. ALL employees must be given a site-specific training and/or refresher prior to assignment at a potentially hazardous jobsite. This site-specific training must include both normal and emergency situations. Training must be done on an annual basis prior to exposure.

Precautions

The following precautions are general in nature and each site should have its own site-specific plan:

- Do not eat, drink, smoke, dip snuff, or apply sunscreen or lip balm in the immediate work area where NORM-contaminated equipment or soil is being handled.
- Where maintenance activities can be planned in advance, survey the equipment to measure the internal radiation exposure.
- Avoid direct skin contact with NORM scale and sludge to the extent reasonably possible.
- To the extent possible, contaminated equipment that is to be opened should be removed from service and vented for four hours before work commences. If the equipment cannot be left idle for four hours, shield the source by placing lead, steel, or iron between the NORM scale or sludge and personnel.
- Keep NORM scale or sludge wet during maintenance or dismantling activities (when vessels or piping will be open) to minimize dust generation during handling.
- When moving or handling open equipment that has been identified as NORM-contaminated, wear plastic gloves at a minimum. If there is any likelihood that NORM scale or sludge will become loose or airborne, wear coveralls, safety glasses and an approved respirator for radionuclides. This applies even if the material is wet. Such work may include cutting, grinding, drilling, polishing or welding. At a minimum, the respiratory protection should consist of a half-face piece respirator with HEPA rated cartridges approved for radionuclide dust. The cartridges have a magenta or hot pink color.
- The number of personnel in the work area will be kept to a minimum.
- After working on contaminated equipment, personnel should thoroughly wash their hands and face before eating, drinking, smoking, and chewing, and at the end of the day to prevent ingestion of NORM-contaminated material.
- Where there is potential for significant dust containing radionuclides to be generated from material deposited on the ground, temporary plastic ground covers should be used when or where possible to contain any displaced NORM contamination.
- If possible, openings on NORM-contaminated equipment should be capped, sealed or wrapped in plastic to minimize the generation of any dust or the displacement of scale or sludge that may contaminate the surrounding soil.
- Contaminated protective clothing should be segregated in a drum until it can be scanned with a meter. If it exceeds regulatory limits, it will be handled as NORM waste.

Removal of NORM-Contaminated Equipment from Service

When equipment or piping is removed from service and has been identified by the client through external radiation surveys as NORM-contaminated, Rangeline Group will assist in covering the openings, to the extent possible, with plastic to prevent soil contamination, and the equipment will be labeled as contaminated (at the clients' request)

Rangeline Group is not licensed for NORM removal and disposal, so if these situations exist, the client is responsible for these actions. Rangeline Group Management personnel are not permitted to transport NORM-contaminated materials.

End Of Policy

Personal Protective Equipment Policy

General

Personal protective equipment is designed to be a front line of defense for the employee where engineering controls cannot eliminate a hazard. The purpose of PPE is to shield and isolate the employee from potential hazards that could not be controlled by any other means. PPE, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and Rangeline Group condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation of physical contact.

Rangeline Group Job Sites:

All Rangeline Group Job Sites , Work Shops and related areas require the following PPE at all times. Other PPE may be required therefore, Hazard Assessments must be done prior to ensure no other PPE is required for the task.

- ANSI Z-89 – Class E Hard Hats
- Class 3 Safety Vest
- ANSI Z.87 Safety Glasses
    - NOTE : if employee wears prescription glasses, ANSI Z.87 glasses are still required. “Over the Glasses” or OTG Safety Glasses will be provided to ensure compliance.
- ASTM F2413-18 rated - Safety Toed Work Boots
- Gloves

Hazard Assessment

A hazard assessment must be conducted to determine the proper personal protective equipment to be worn or utilized per job assignment. OSHA 29 CFR 1910, Subpart I, Appendix B, gives the proper methodology for conducting such assessments. Rangeline Group generally requires, on all jobs, hard hats, gloves, steel-toe foot protection, earplugs and safety glasses. The company supervisor over the job will conduct the hazard assessment during the pre-job safety meeting to determine if additional protective equipment is needed, such as, but not limited to, fire retardant clothing, respiratory protection or special gloves per SDS requirements. The pre-job safety meeting roster/check-off sheet serves as the hazard assessment documentation and must include Rangeline Group Supervisor (as hazard assessment certifier) name, signature, and date of assessment. Every Rangeline Group jobsite must have a documented hazard assessment, and all personnel are required to wear the PPE that is determined to be necessary. Rangeline Group always requires engineering practices to be implemented to control hazards before PPE will be relied upon to control any hazards.

Compliance

In order to ensure that Rangeline Group not only protects its employees, but also stays in compliance with current regulations, the following PPE plan will be utilized:

- Conduct a hazard assessment to identify potential hazards and insure that affected employees are equipped with the appropriate protective equipment;
- Provide PPE training based on the findings of the hazard assessment.
- Employees will be fitted for and provided with PPE (at no cost to the employee), and it will be used and maintained in a sanitary and Rangeline Group condition.
- If PPE is damaged or defective, it shall not be used. A replacement must be provided, or repairs made before the employee can return to work.
- Employee-owned PPE must be inspected by a Competent Person before it can be used on the jobsite. In addition, employee-owned PPE used on a jobsite will be governed by this program; it will be used, maintained, and inspected according to the same guidelines that company-owned PPE will be. If employee-owned PPE does not meet the standards set forth in this program, the company will issue the employee a no-cost replacement to use for the duration of the job.

Training

Each employee that will be required to utilize PPE must be trained in the following areas regarding the PPE they are to use:

- What PPE is needed for his/her job and why it is needed;
- When PPE is to be worn;
- The limitations of their particular PPE;
- How to put on, take off and adjust their PPE; and • How to properly maintain, clean and dispose of their PPE.
- Proper fitting of PPE

Training is conducted at new hire orientation (before the employee is exposed to a hazard). Retraining is required in the following situations:

- when changes in the workplace dictate a change of PPE
- when changes in the workplace make the former training obsolete
- when the provided and/or available PPE itself changes
- when an employee cannot properly use and/or demonstrate an adequate knowledge of his/her assigned PPE.

All training and retraining must be documented; the name(s) of the person(s) trained, the date of training, the training topic, and the instructor's name must be recorded.

Hardhats

Hardhats are designed to offer the user protection from vertical and horizontal impact and limited electrical protection. All hardhats must be ANSI Z-89 approved.

Hardhats need to be inspected often to ensure that the liner is not damaged, that the dome has not sustained sun damage, that it is not cracked, or that any modifications have been made. The dome should not be brittle or soft, and there should be no holes whatsoever anywhere on the hardhat.

The application of too many hardhat stickers hinders the wearer from making a complete and thorough inspection.

Do not carry or hide anything inside the hardhat where it can hinder the shock absorption effect of the liner.

The hardhat should be worn with the visor facing forward and the hardhat level on the head. It must not be worn backward, or tilted to the side. If you are to use a winter liner, do so in accordance with the manufacturers' guidelines. Chinstraps should be considered when working at heights under windy conditions.

Clean hardhats with mild soap and water and avoid using gasoline, kerosene or any other such solvent.

Eye and Face Protection

All safety glasses must be approved ANSI Z-87.1-1989 type—designated Z87.

Safety glasses are the most basic form of eye protection available. Their effectiveness is limited to the hazards they are designed to protect against. They are designed to protect the user from flying objects or particles. Side shields are required at all times. Inspect regularly for scratches on the lenses and continual proper fit.

Goggles will need to be worn instead of safety glasses for a variety of reasons. Those being, but not limited to:

- Grinding
- Chipping
- Weed Eating
- Any other activity that could cause an impact hazard of the eye,
  Goggles also protect from splash hazards such as when handling chemicals or performing first aid on a victim with arterial bleeding. Prime examples of jobs requiring splash protection include:
- Pouring Acid
- Pumping out a sump
- Spraying any type of cleaner or solvent

Be careful to not use impact protection goggles for splash protection as some impact goggles are vented for comfort.

Face shields are designed to protect the entire face from a splash or flying particle impact. They are never to be worn by themselves without safety glasses or goggles underneath.

Face Shield and safety glasses are to be worn when :

- Chipping
- Scraping
- Blowing
- Buffing

- Grinding
- Operating a concrete saw (also known as a “quickie saw”.)
- Flying particles or debris is present
- Dispensing paints, coatings, or solvents;
- Using pneumatic tools.
- Handling of molten metal (wire mesh face shield behind plastic shield is a must).

Welding Protection

Only approved welding hoods or pancake hoods can be used. If the welder chooses to use the pancake hood, then it must be fitted to the welder’s individual face with no space or gaps. If the pancake is properly fitted, then no other eye protection is required under the pancake. ANSI approved pancake hoods are considered primary eye protection when they are fitted properly

Grinding

You must wear both primary and secondary eye protection when grinding. That means you will wear a face shield and safety glasses or goggles whenever you grind with an abrasive wheel.

Hand Protection

Hand injuries are the most prevalent of injuries in most industries. Gloves are the easiest form of protection. However, gloves are very limiting. The glove must be fit to the hazard in order to provide the best protection. Common hazards include but are not limited to:

- Abrasions
- Burns, thermal or chemical
- Cuts
- Puncture
- Skin absorption
- Temperature extremes
- Impact

The term “rubber” is generically used for all synthetic type gloves available. However, not all “rubber” gloves can be used for the same type of job. Some rubber gloves are highly conductive, while others are used to protect against electricity.

To determine the proper “rubber” glove to utilize, you can:

- Ask your supervisor;
- Read the SDS on that particular chemical;
- Refer to the local PPE Hazard Assessment for your local working environment

Leather gloves address a completely different set of hazards then “rubber” gloves. These hazards include but are not limited to:

- Abrasive materials;
- Sharp edges;
- Hot work; and
- Cold work

Cloth gloves are considered a general duty type of glove and they do offer some light protection from abrasion also.

Keep in mind that leather and cloth gloves are not to be used around chemicals as they will absorb rather than repel the chemical.

Gloves are not to be worn when working around rotating machinery.

Foot Protection

ASTM F2413-18 approved footwear is the minimum footwear allowed. Additionally, Slip Resistant, Electrical Hazard, Puncture Resistant and Lace up boots are highly recommended and preferred.

Some hazards that might be encountered in the working environment are, but not limited to:

- Falling object
- Rolling objects
- Piercing objects
- Chemicals
- Electricity

The most commonly used form of footwear is a safety toed work boot. Steel toe, composite toe and alloy toe boots are designed to protect against falling objects that might crush the toes.

You are required to read the PPE Hazard Assessment for your local working environment.

End Of Policy

Respiratory Protection Program

Policy

It is the policy of Rangeline Group to protect its employees from hazardous atmospheres through a comprehensive program of recognition, evaluation, engineering, administrative and work practice control including respirators and other personal protective equipment (PPE). To the greatest extent possible, hazard elimination, and engineering and work practice controls shall be employed to ensure employee exposure is within allowable exposure limits.

Rangeline Group employees shall not work within spaces or areas containing hazardous atmospheres that cannot be eliminated.

When such hazardous conditions exists, work should not be performed. If a hazardous atmosphere is detected while performing work, work shall be stopped, and the area exited immediately. To resume work, the space or area must be evaluated to ensure the space or area is free of hazardous atmospheres.

However, while these measures are being developed, or if they are not feasible or fully effective, Rangeline Group will provide affected employees with the appropriate respirators, as prescribed by this program.

Rangeline Group is committed to full compliance with applicable federal and state regulations pertaining to employee respiratory protection.

Purpose

The purpose of this program is to protect the health of Rangeline Group employees who may be exposed to hazardous atmospheres while working, and to provide the appropriate protection from these hazards without creating new hazards. This program provides information and guidance for the proper selection, use, and care of respirators, and contains requirements for establishing and maintaining a respirator program.

Voluntary use of respirators when not required

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following when utilizing a respirator when not required :

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.

2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

Scope

The program applies to all Rangeline Group employees who need to wear a respirator to perform assigned duties.

Roles and Responsibilities

1. Respirator Administrator (which is named by position or job title and has all necessary training)

   a. Is responsible for the Respiratory Protection Program: including the implementation and complexity of the program, the monitoring of respiratory hazards, maintaining records and conducting program evaluations. The Respirator Administrator is responsible for supervising the execution of this program at all levels.

   b. Has knowledge about respiratory protection and maintains an awareness of current regulatory requirements and good practices.

   c. Approves job-specific Respiratory Protection Programs for each operation that involves the use of respirators.

   d. Approves respiratory training programs for employees.
   e. Approves fit test procedures for employees.

   f. Approves respirator makes and models for use at each worksite.

   g. Ensures that employees using respirators have appropriate surveillance and that employees leave the work area to wash, change cartridges, or if they detect a break-through or encounter breathing resistance.

   h. The effectiveness of this program shall be monitored by surveying our employees about their experiences with fit, selection, maintenance, etc. of our respirators while they are employed with our company.

   i. Ensure that employees have the compulsory training, fit testing, and medical clearances necessary before authorizing them to wear a respirator.

   j. Prohibit any employee with lapsed or incomplete respirator clearances from working in hazardous atmospheres. Enforce any restrictions imposed by the occupational physician on individual employees, including the need for corrective lenses.

2. Safety Department

    a. Performs employee exposure monitoring upon initial work in a potentially hazardous atmosphere and whenever work conditions change that may affect employee exposure.

    b. Performs employee exposure monitoring in accordance with Federal OSHA regulations.

    c. Uses generally accepted sampling techniques and analytical methods, including generally accepted quality assurance and control measures.

    d. Reports all findings to the supervisor within five days of receipt of analytical results from the laboratory, at a minimum.

    e. Upon request, performs surveys and makes recommendations for hazard control.

3. Respirator Technician and/or Outsource Provider of this Service

    a. Complete initial respirator training and annual refresher training. In addition,
    b. complete any recommended respirator manufacturer training prior to servicing respirators and their components. '

    c. Perform and document semi-annual inspections of each air purifying respirator and monthly inspections of each supplied air respirator issued by Rangeline Group or maintained in their inventory.
    d. Ensure that compressed breathing air cylinders are hydrostatically tested on schedule.

    e. Remove from service and tagout any defective respirators or parts.

    f. Perform maintenance and repairs of respiratory protection equipment in accordance with the manufacturer's instructions.

    g. Maintain an inventory of respirators and associated parts and equipment in a clean, secure area in a manner so as to prevent damage to the parts.

    h. Issue respirators when so directed in writing, inspecting to confirm that the respirator or equipment is of the type specified in the respirator plan or program.

    i. Issue spectacle kits to employees who require corrective lenses with their respirators.

    j. Perform tests for compressed air quality and inspect breathing air compressors periodically.

4. Supervisors

    a. Must hold a safety meeting on respiratory protection issues at the start of each new project or task that involves respiratory hazards for affected employees under their supervision.

    b. Is responsible for enforcing the written Respiratory Protection Program and Worksite Specific Respiratory Protection Plan that has been approved and implemented by Respirator Administrator, or designee. All respirator use must comply with the written programs in effect at the jobsite.

c. Record any complaints related to respirator usage, act promptly to investigate the complaints, correct any hazards, and get medical assistance when indicated. Report all first aid and/or medical treatment administered on a jobsite. Report every respirator-related incident to the Respirator Administrator before the end of the work shift.

d. Physically check each respirator prior to its assignment to their employees to be sure that it is of the type specified in the written plan.

e. Inform each affected employee of the results of exposure monitoring within one day of receiving such results and assure inclusion of all exposure reports in the company, and/or specific site record keeping system.

f. Monitor employee compliance with the respirator program requirements.

5. Employees

a. Use respiratory protection in accordance with the instructions and training provided.

b. Immediately report any defects in the respiratory protection equipment and whenever there is a respirator malfunction, immediately evacuate to a safe area and report the malfunction.

c. Promptly report to the supervisor any symptoms of illness that may be related to respirator usage or exposure to hazardous atmospheres.

d. Report any health concerns related to respirator use or changes in health status to the occupational physician.

e. Wash their assigned reusable respirators at the end of each work shift when used and disinfect assigned respirators at least weekly.

f. Store respirators in accordance with instructions received.

g. Observe and enforce any restrictions placed on employee work activities by the occupational physician.

h. Be clean-shaven in all facial areas that seal to the respirator face piece.

i. Do not allow headpieces, Band-Aids or other items beneath a respirator seal or head strap assembly.

j. Inspect the respirator immediately before each use, in accordance with training provided.

k. Perform a user seal, negative and positive respirator fit check each time a respirator is donned in accordance with training provided.

l. Glasses, facial hair or anything that could affect the face piece seal are prohibited. Respirators with tight-fitting face pieces shall not be worn by employees who have facial hair that comes between the sealing surface of the face piece and the face or that interferes with valve function.

Permissible Practices

1. Respirator Administrator, or his designee, shall issue all respirators worn by Company employees.

2. Respirators shall be issued by Rangeline Group and worn by exposed employees whenever airborne contamination levels are not otherwise reduced to within the allowable limits.

3. A written Respiratory Protection Program and a Worksite specific Respiratory Protection Plan shall be prepared and approved by Respirator Administrator before any employee is permitted to use a respirator, including voluntary or emergency use. This plan shall identify the location and tasks, identify and quantify the air contaminants or oxygen deficiency, specify the appropriate respirator, and specify any limitations, such as air monitoring, respirator cartridge replacement frequency, etc. The form entitled "Worksite Specific Respiratory Protection Plan" at the end of this section may be used to document your Plan. Each operation involving respirator use must have a signed and approved written plan. For all 1DLH atmospheres, Rangeline Group shall ensure that:

    a. One employee or, when needed, more than one employee is located outside the IDLH atmosphere;

    b. Visual, voice, or signal line communication is maintained between the employee(s) in the IDLH atmosphere, and the employee(s) located outside the IDLH atmosphere;

    c. The employee(s) located outside the IDLH atmosphere are trained and equipped to provide effective emergency rescue;

    d. The employee(s) located outside the IDLH atmosphere assures that the employer or designee is notified before entering the IDLH atmosphere to provide emergency rescue;

    e. The employee(s) located outside the IDLH atmosphere are authorized to rescue the employer, once notified. Native Pipeline Service shall provide necessary assistance appropriate to the situation; and,

    f. Employee(s) located outside the IDLH atmospheres shall be equipped with:

        o Pressure demand or other positive pressure SCBAs, or a pressure demand or other positive pressure supplied-air respirator with auxiliary SCBA. In addition, affected employees will be equipped with either the appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres where retrieval equipment would contribute to the rescue of the employee(s) and would not increase the overall risk resulting from entry or equivalent means for rescue where retrieval equipment is not required.

4. Upon an employee's request, an appropriate respirator shall be issued for voluntary use when exposure to contaminant levels is at or above 50 percent of allowable limits,

but within allowable limits, or when exposed to nuisance dusts, molds, pollen, etc. Reasonable efforts should be made to reduce such exposures.

5. Regardless of exposure level. Employees who are exposed to any recognized carcinogen, mutagen or teratogen in the performance of their work assignments may request and receive an appropriate respirator for voluntary use. In addition, affected employees already assigned a respirator may request a respirator that provides a higher protection factor than the one provided by Rangeline Group for that work.

6. Company Emergency Response Plans required for chemical spills or releases, fire response, pathogen exposures, etc. shall include a Respiratory Protection Program and Worksite Specific Respiratory Protection Plan whenever there is a reasonable potential for a respiratory hazard. If an emergency plan calls for complete employee evacuation and no Rangeline Group employee is assigned response activities, a plan is not required as a component.

7. At no time, however briefly, shall a Rangeline Group employee be exposed to contaminant levels that are more than three times the allowable 8-hour time weighted average limits without respiratory protection.

Respiratory Protection Program and Worksite-Specific Respiratory Protection Plan

1. Each operation that involves respirator use shall have a Worksite Specific Respiratory Protection Plan that is approved and signed by Respirator Administrator and job supervisor.

2. This plan, which may be a part of a job hazard analysis, site safety plan, confined space entry permit or other document, shall contain an identification of the atmospheric hazard(s) and the respective measured or expected concentration(s) at each location or operation, the respective allowable concentration limits, the type of respirator(s) approved, monitoring requirements, emergency response procedures, and limitations, such as the frequency of respirator cartridge change out.

3. This document shall be updated annually and more frequently if conditions change. This Worksite Specific Respiratory Protection Plan shall be available at the job location and shall be maintained for 30 years as an exposure record.

Recognition and Evaluation of Airborne Contaminants

1. The Host Company, Corporate Safety Director, Supervisor or other designee shall initially perform a hazard assessment in each workplace. Where the presence or potential presence of airborne contaminants is recognized or suspected, the above evaluator shall perform evaluations to determine if allowable limits are exceeded or potentially exceeded. The results of the hazard assessment shall be communicated to the Project Manager and affected supervisors and employees. A written record of this assessment, including identification of the work area, the name of the assessor and the date of the assessment, shall be maintained for a period of 30 years if atmospheric hazards were identified. This file shall be maintained in the office of Safety Director.

2. For workplaces in which the hazard assessment produces no findings of potential exposures, Supervisors shall monitor the workplace and request a hazard assessment whenever materials or processes change.

3. Whenever the hazard assessment identifies potential exposures to hazardous atmospheres, an annual reassessment shall be performed, unless OSHA requires a more frequent assessment. In addition, the Supervisor is responsible for requesting a reassessment whenever materials or processes change.

Evaluation of Airborne Contaminant Controls

1. When hazardous atmospheres are recognized, elimination of the hazardous material or feasible engineering and work practice controls shall be instituted to reduce contaminant levels to within allowable limits. If such measures are not completely successful or if the condition is temporary, personal protective equipment, including respiratory protection shall be selected and worn.

2. The Host Company, Corporate Safety Director, Subsidiary Company Safety Coordinator, Supervisor or other designee shall assess the workplace when controls are instituted to measure their effectiveness in reducing employee exposure to hazardous atmospheres.

Selection and Issuance of Respirators

1. Selection of the appropriate respirator shall be documented in the written Worksite Specific Respiratory Protection Plan. If the atmosphere is uncharacterized, it must be assumed to be IDLH and a positive pressure SCBA or combination supplied air respirator with SCBA must be worn. Respirator selection shall comply with OSHA requirements for specific substances, such as asbestos, lead, etc. At a minimum, the assigned protection factor of the selectee's respirator shall be equal to or exceed the hazard ratio.

2. All respirators used by Rangeline Group shall be approved by NIOSH. No components shall be substituted, unless they are approved by NIOSH.

    a. Any change or modification to a respirator may void the respirator's approval and may adversely affect its performance. Refer to the table "Listing of Approved Respirators" for assistance in selecting the proper respirator.

3. Any restrictions or limitations recommended for a particular respirator by the respirator manufacturer shall be observed.

4. The Respirator Technician or other appointed person/outsource company shall inspect each respirator or component prior to issuance and shall assure that the respirator assembly is complete, sanitary and in good working order upon issuance. Atmosphere supplying respirators shall be returned to the Respirator Technician or other appointed person/outsource company at least monthly for periodic inspection and air-purifying respirators shall be returned for periodic inspection at least semi-annually. A log shall be maintained of these periodic inspections.

5. Supervisors are responsible to ensure that each respirator user under their supervision is currently approved for respirator use, including medical, fit testing and training certifications. Employees with expired certifications shall not be permitted to work in hazardous atmospheres or to voluntarily wear a respirator until their lapsed requirements are updated.

6. Each respirator must be inspected by its wearer immediately prior to each use, according to instructions provided in the respirator training. Any defects shall be reported to the Supervisor before entry into a hazardous atmosphere. The wearer, immediately prior to entering the hazardous atmosphere, shall perform a user seal check.

7. Rangeline Group will provide an appropriate spectacle kit to each respirator wearer who requires corrective lenses and will pay for prescription safety lenses for the kit initially and as needed. The employee in hazardous atmospheres with negative pressure and positive pressure respirators in written communication to the company Respirator Administrator shall permit contact lenses if the employee's ophthalmologist or optometrist authorizes their use.
8. Employees who are issued a respirator are responsible for its maintenance, daily inspection and storage while the unit is in their control.

9. Respirators and all associated costs related to maintaining them shall be borne by the employer.

NOTE: All work environments will be evaluated for respiratory hazards. In the absence of analytical data establishing the amount of airborne contaminants, all atmospheres will be considered IDLH.

Potential Airborne Contaminants and Corresponding Protection

Atmospheric Hazard	Work Activity	Concentration	Respirator	End of Service Life
Metal Dusts	Machining, Grinding	<50mg/m3	Filtering Face piece	8 hours
Acid Gas	Escape	IDLH	3M 8710 90AG Scott Escape Mouth Bite with Acid Gas Cartridge	NA
Ammonia	Escape	IDLH	3M 6200Half Face Mask with 6004 Ammonia Methylamine Cartridge	NA
Misc.	Escape	IDLH	Scott SCBA	30 Minutes

Hydrogen Sulfide	Mechanical Services	IDLH	3M AV 2000 Full Face Supplied Air	30 Minutes with 5 Minute Escape

Fit Testing

1. Each respirator wearer shall be qualitatively (QLFT) and quantitatively (QNFT) fit tested at least annually, using protocols approved by the Respirator Administrator. More frequent testing shall be performed if required by OSHA regulations for specific substances or if the wearer's facial contours change, such as by weight gain or loss, facial surgery, etc.

2. On the occasion of each fit test, employees may choose their respirator from an array of at least five face pieces from different manufacturers and sizes approved by the Respirator Administrator.
3. Fit test certification shall be prepared and signed by the person performing the fit test and must name the tested employee; the make, model and size of the respirator fit tested; and the result of the fit test. A copy shall be provided to the Supervisor.

4. Rangeline Group shall pay for all required fit tests.

Medical Approval for Respirator Use

All medical evaluations will be confidential, conducted during normal working hours, convenient and understandable (an interpreter will be provided as necessary). Any employee has the right to discuss findings with the PLHCP and this is done confidentially.

The PLHCP will be given a copy of the Respiratory Protection Policy, a copy of 29 CFR 1910.134, and a listing of anticipated work levels, additional PPE required, duration of work while using respiratory protection, weather extremes, and the types of respirators to be worn. The PLHCP will utilize this information in determining the employee’s suitability for wearing respiratory protection.

1. Prior to fit testing, each respirator wearer shall be approved for respirator use by the appointed company physician or other licensed health care professional (PLHCP) at least annually. The occupational physician shall be provided a copy of the employee’s duties, respirator types to be worn, and air contaminants, as well as any applicable OSHA standards governing the medical evaluation, such as the Respiratory Protection standard and applicable substance-specific standards.

2. Rangeline Group shall commission a licensed physician to perform medical evaluations; Rangeline Group will pay all costs associated with the respirator medical evaluation. Rangeline Group will approve payment for the medical diagnostic procedures necessary to assess the ability of an employee to safely wear a respirator.

3. Medical records created under this program shall be handled in accordance with OSHA requirements for confidentiality, employee access and retention. Fit testing and medical

records will be maintained in the employee's confidential file by the human resources department.

Required Training

1. Each respirator wearer, supervisor of a respirator wearer, respirator technician and the Administrator must be trained. Training must be comprehensive, understandable, and repeated annually—more often if necessary.

2. Upon successful completion of respirator training, the instructor shall sign a certification that names the employee trained, the type(s) of respirator and the training date. A copy
shall be provided to the supervisor. A record shall be maintained of the training topics covered.
3. Each employee trained shall demonstrate knowledge of at least the following:

    a. Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator;

    b. What the limitations and capabilities of the respirator are;

    c. How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;

    d. How to inspect, put on and remove, use, and check the seals of the respirator;

    e. What the procedures are for maintenance and storage of the respirator;

    f. How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and

    g. The general requirements of 29 CFR 1910.134.

4. Rangeline Group shall provide the training prior to requiring the employee to use a respirator in the workplace at no cost to the employee.

5. An employer who is able to demonstrate that a new employee has received training within the last 12 months that addresses the elements specified in paragraph 3a through 3g above, is not required to repeat such training provided that the employee can demonstrate knowledge of that element(s). Previous training not repeated initially by the employer must be provided no later than 12 months from the date of the previous training.

6. Retraining shall be administered annually, and when the following situations occur:

    a. Changes in the workplace or the type of respirator render previous training obsolete;

    b. Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill; or

c. Any other situation arises in which retraining appears necessary to ensure safe respirator use.

7. Rangeline Group shall provide basic information on respirators, found in Appendix D, 29 CFR 1910.134, to employees who wear respirators when not required by this regulation or by us to do so. This basic advisory information on respirators shall be provided in any written or oral format.
8. For all IDLH atmospheres, Rangeline Group will train employees located outside the IDLH atmosphere and equip them to provide effective emergency rescue.

Record Keeping

Medical records will be maintained for the duration of employment plus thirty (30) years. The medical records of employees who have been employed for less than one year will be provided to the employee upon termination and will not be retained following the termination of his/her employment. Employee exposure records will also be retained for a period of thirty years. With the exception of chest x-rays, Rangeline Group reserves the right to retain records in either paper or digital format.

Employee records are available for examination and/or copying by the employee or his/her designated representative in the administrative offices. Records will be made available within a reasonable amount of time, not to exceed fifteen business days, following the employee and/or representative's initial request.

If Rangeline Group ceases to do business, all medical and exposure records will be transferred the employee's successor employer, and the successor employer shall maintain the records in accordance with state and federal regulations. If there is not a successor employer to transfer the records to, current employees will be notified three months prior to the cessation of the employer's business of their rights of access to the records. Furthermore, the Director of the NIOSH will be notified in writing of the impending disposal of records at least three months prior to the disposal of the records. Rangeline Group will notify the Director of NIOSH in writing at least three months prior to disposing of records required to be preserved for at least thirty years.

Employees will be notified of the existence, location and availability of their medical and exposure records on an annual basis beginning on the date of their new-hire orientation. Employees will also be given the name of the individual or department responsible for maintaining and providing access to records. Employees will be made aware of their rights to access the material in their medical and exposure records.

Listing of Approved Respirators (NIOSH-approved)

Brand	Model	Style*	Comments
3M	N-series	Full or Half facepieces and specific cartridge model must be selected once the contaminants in the breathing zone have been determined.	Use only in those atmospheres free of oil aerosols.

3M	P-series	Full or Half facepieces and specific cartridge model must be selected once the contaminants in the breathing zone have been determined.	Use to remove any particulate including oil-based aerosols.

SCOTT	AV2000	Full Face	Most used mask for fresh air work. Can also be used with cartridges.
3M	3M6000	Half Face	

NOTE: Refer to the 3M Respirator Selection Guide for proper selection of facepiece and cartridge once the airborne hazards in the workplace have been identified. The most up-to-date Selection Guide can be found on 3M's website: www.3M.com.

Definitions

- Air Purifying Respirator (APR): A type of respirator that removes specific contaminants from air by use of filters, cartridges or canisters by passing ambient air through the air- purifying element. APRs do not supply oxygen.
- Allowable Limit: The maximum concentration of a substance in air that is permitted by regulation or voluntary standards to protect employee health. These concentrations may be expressed in terms of an 8-hourtime-weighted average, a 15-minute short-term average or as an instantaneous upper ceiling limit. An example is the OSHA permissible exposure limits (PEL).
- Atmosphere-supplying respirator: A type of respirator that supplies the user with breathing air from a source independent of the ambient atmosphere, and includes supplied air respirators (SARs) and self-contained breathing apparatus (SCBA) units.
- Employee Exposure: Exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.
- Escape only respirator: Respirator intended to be used only for emergency exit.
- Fit test: Use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual.
- Hazardous atmospheres: An atmosphere that contains a contaminant(s) in excess of the allowable limit or contains less than 19.5 percent oxygen.
- Immediately dangerous to life and health (TDLH): An atmosphere that poses an immediate threat to life would cause irreversible adverse health effect, or would impair an individual's ability to escape from a dangerous atmosphere.

- Negative pressure respirator (tight fitting): A respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.
- Positive pressure respirator: A respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

- Qualitative fit test (OLFT): A pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

- Quantitative fit test (ON FT): An assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

- Self-contained breathing apparatus (SCBA): An atmosphere-supplying respirator for which the breathing air sources is designed to be carried by the user.

- Service life: The period of time that a respirator, filter or sorbent or other respiratory equipment provides adequate protection to the wearer.

Worksite Specific Respiratory Protection Plan

Task description:

_____
_____
_____

Atmospheric hazards:

- Oxygen levels: _____
- Is this oxygen level deficient?

Monitoring (List the monitoring frequency and method for each atmospheric hazard)

Controls to be implemented to reduce employee exposure to atmospheric hazards:

1. _____
2. _____
3. _____

Respirators to be worn (List type, cartridge type if APR, concentration and limits for use):

_____
_____
_____

Authorized employees (list with employee number):

1. _____
2. _____
3. _____
4. _____
5. _____ (List additional on back of page)

Emergency Response:

- Signs and symptoms of overexposure

  _____

  _____

- Evacuation procedures

  _____

  _____

- First aid and emergency medical procedure

  _____

  _____

- Reporting procedures

  _____

  _____

Signature of the Respirator Administrator (or designee):

_____ Date: _____

Signature of the Jobsite Supervisor:

_____ Date: _____

Rangeline Group

FIT TEST AND USER SEAL CHECK RESULT SHEET

Employee: _____ Date:_____

Company: _____ Social Security #:_____

Fit Test Method Used: Qualitative (QLFT) ___ Quantitative (QNFT)____

Irritant Smoke _____ Isoamyl Acetate _____ Saccharin _____

Porta count _____ Aerosols _____

Respirator Type: _____ Model:_____ Size:_____

1. Move Head Up & Down:
2. Bend At Waist:
3. Run In Place:
4. Move Head Side To Side:
5. Talk:
6. Breathe Deeply
7. Grimace
8. Rainbow Passage

Fit Test Results: Pass/Fail

Comments:

_____

_____

Employee's Signature:_____ Date:_____

Test Administered By:_____

Stop Work Authority

Purpose

This policy establishes Stop Work Authority (SWA) for all Company employees and Subcontractors to suspend individual tasks or group operations when the control of an EHS risk is not clearly established or understood. If an employee is unsure about the safety of themselves or those around them , the best thing to do is pause and ask questions. This policy and procedure are to define the standards that apply to the management process of safety related questions or concerns found within Rangeline Group's scope of work.

Scope

All RANGELINE GROUP work sites, facilities, and offices.

Application

1. To ensure that potential risks are identified, and that employees are appropriately supervised, trained, mentored, and managed in order to prevent accidents such as personal injury, injury to others, environmental damage, and/or property damage.

2. All Company employees and Subcontractors have the authority and obligation to stop any task or operation where reasonable concerns or questions regarding RANGELINE GROUP risk exists**.**

3. No work will resume within RANGELINE GROUP'S scope of work until all stop work issues and concerns have been adequately addressed**.**

4. Any form of retribution or intimidation directed at any Client, Individual, Subcontractor or contracting vendor for exercising their authority will not be tolerated as outlined in this policy

Stop Work Authority – General Requirements

The following sequence should be followed when "Stop Work" intervention is initiated.

1. **Stop** – Announce to all affected personnel your intent to delay or stop the job. Suspend all work related to the identified hazard affecting RANGELINE GROUP'S scope of work. The goal is to ask questions and determine the facts of the identified hazard.

2. **Notification** –Notify your Operations Manager or Direct Report first. If further assistance is needed, notify the Safety Department. The goal is to ensure all affected personnel are notified to ensure clarification of the identified hazard and potential steps moving forward. It also should be noted to inform the sales manager related to the work as well to aid with communication when possible.

3. **Correct** – Recommend and assist with corrective measures if it was determined that imminent risk or dangers actually exist. If the work is deemed unsafe, work can no longer continue until corrected.

4. **Follow Up** – It is important to ensure that the safety concerns have been addressed and corrected to the satisfaction of all concerned before work is resumed. The goal is to complete the work safely.

Responsibility

1. Management is responsible for creating a culture where Stop Work Authority is exercised freely and ensures that no retribution or intimidation is directed toward the Client, Employee or Subcontractor for exercising the Stop Work Authority.

2. Employees have the responsibility and obligation to initiate a Stop Work Intervention consistent with the procedures outlined above.

Training

1. All Company employees will receive "Stop Work Authority" training upon initial assignment to their job, such as New Employee Orientation.

2. Re-training will be conducted whenever the policy has been revised and/or updated

End Of Policy

Welding, Cutting and Hot Work

General Requirements

Precautions that are to be taken shall be in written form (example – a JHA or Hot Work Permit) . . Before cutting or welding is permitted the area shall be inspected, hazards assessed, and precautions implemented.

A hot work permit must be issued before hot work is performed:

- Within 150 feet of an area where combustible/flammable vapors or dust are or could exist;

  or

- Within 35' of a solid combustible material.

Hot work is defined as any work that will generate sufficient heat to ignite combustible and/or flammable materials. Combustible materials are substances that will freely support combustion once ignited. The following activities are examples of hot work; however, there may be more that are applicable at specific locations:

- Welding
- Flame Cutting
- Grinding
- Portable Heaters or Steamers
- Electrical Tools/Equipment (that are not explosion proof or intrinsically safe)
- Sandblasting operations (static charges)

The competent person is responsible for the pre-work inspection, and once completed, they must ensure that all work is permitted prior to authorizing the commencement of any hot work. The pre-work inspection and subsequent preventative actions must all be documented.

Hot Work Procedures

Rangeline Group employees must ensure that the hazards associated with hot work are eliminated or reduced to prevent accidental fires or explosions before beginning the hot work. Any person may authorize the stoppage of work if there is reason to believe an unsafe condition or situation exists.

The company representative responsible for supervising hot work must complete the hot work permit before work may begin. (Host facility permits and gas tests are acceptable provided they meet the requirements of this section.)

The permit must be reviewed and signed by the person performing the work, the person authorizing the work, and the person approving the work to ensure his/her acknowledgment of the conditions set forth in the permit. If contract personnel are performing the hot work, the contractor's representative at the location where the hot work is being conducted must retain a copy of the permit.

The person giving approval for the hot work to begin must ensure that the area is periodically surveyed to ensure the conditions remain suitable for hot work. The work area shall be resurveyed following all breaks, meals, meetings or other interruptions in the work.

If the object to be welded or cut cannot be moved, all moveable fire hazards must be removed. If all the fire hazards cannot be removed, then guards shall be used to confine the heat sparks and slag and to protect the immovable fire hazards. If removal and/or guards are not feasible, then the work cannot be done.

Operators of equipment should report any equipment defect or safety hazards to their supervisor and discontinue use of the equipment until it has been inspected, and its safety has been assured. Repairs shall be made only by qualified personnel.

While working in confined spaces, proper ventilation and lifelines must be utilized, and all gas cylinders must be secured Gas cylinders must be able to be shut off immediately in the event of an emergency, and warning signs must be posted at the point of entry. Continuous monitoring should be provided in areas where conditions are likely to change, and in high-risk areas such as in tanks, or a plant's processing area.

Ventilation and/or respirators must be utilized if any employee inside of a work area is welding, cutting or burning lead base metals, zinc, cadmium, mercury, beryllium or any other potentially hazardous metal not listed here.

If hot work conditions change and a permit expires due to a potential danger (i.e., leak, wind change, evolution of hazardous fumes, gases or dust, lower explosive limit (LEL) reading above 1% percent, etc.), no work will be performed until additional testing is conducted. The source of the hazard must be determined, controlled and the area re-inspected and permitted before work can resume.

Expired hot work permits will be kept on file at the facility for at least one month beyond their expiration date.

Permits will not be valid for shifts other than the one in which the work started. Each permit will be dated and will carry an expiration time.

The checking and testing that precedes the issuing of a permit should be as close as practical to the time the work is to be done. The percentage of the lower explosive limit will be recorded on the permit.

Hot work shall not begin if a lower explosive limit (L.E.L.) greater than 1 percent is measured. No exceptions to this rule shall be made. Non-direct reading instruments are not permitted for hot work or confined space entry jobs.

Combustible gas indicators will be calibrated prior to performing the gas test. If the meter is to be used multiple times throughout the shift it only needs to be calibrated at the beginning of the shift. The calibration results must be documented and filed appropriately at the location. NOTE: Special considerations must be given to tanks that are being purged with an inert gas. "Normal" combustible gas indicators will not accurately measure the combustible gas in a tank being purged.

When a fire watch is necessary, he/she must be on duty at all times during the performance of the work.

In the event the hot work extends past the permit's expiration time, a new permit must be obtained.

When the work is complete, the company representative that is responsible for the hot work must be notified.

Welders assigned to operate arc welding equipment must be properly trained and qualified to operate the equipment. Cutters, welders and supervisors must be suitably trained in the safe operations of their equipment and/or the equipment for which they are responsible.

A first aid kit must be available at all times and for all work areas in case of an injury or emergency.

Fire Watch

The operating supervisors are responsible for assigning a fire watch when the welding, flame cutting, grinding, use of portable steamer equipment, etc. is within 35 feet of a potential combustible or vapor source. The fire watch must be trained in the proper use of a cartridge-operated fire extinguisher. The fire watch must also be familiar with the facilities so he/she can sound an alarm in the event of a fire, where applicable. Supervisors must be familiar with the duties of a fire watch, including:

1. Understanding the location and nature of the hot work.
2. Survey the area to be sure the necessary fire protection equipment is in place and ready for use.
3. Survey the area for combustible or flammable materials.
4. Remain in the area while the work is being performed and remain in constant communication range with person(s) doing the hot work.
5. Never leave the area for any reason without a replacement.
6. When bulkheads or walls are involved in hot work, both sides require a fire watch.

The fire watch must be in the ready position at all times while hot work is being performed. The ready position consists of being attentive and having the fire extinguisher readily available, and in position prior to the start of work.

The extinguisher nozzle must be in hand while the hot work is being performed. The extinguisher must be returned to its assigned location when the hot work is complete.

The fire watch must periodically survey the area with an LEL monitor to ensure the area is suitable for hot work. The work will stop immediately if the combustible gas indicator registers 1 percent or greater of the lower explosive level (L.E.L.) in the atmosphere. Only direct reading instruments are permitted for this work.

The fire watch is authorized to stop the work whenever he/she believes the conditions are not suitable for such work. The fire watch is also authorized to stop the work if the work description on the permit is being exceeded.

The fire watch shall be equipped with the personal protective equipment (PPE) needed to perform the work safely (i.e. properly shaded goggles for working with welders).

A fire watch shall be maintained at least half an hour after the welding or cutting operation was completed.

A fire watch must be present when:

1. Work is performed at a location where a fire might develop.
2. Combustible materials are closer than 35 ft. (10.7M) to point of operation.
3. Combustibles are 35 ft. (10.7M) or more away but are easily ignited.
4. Wall or floor openings within 35 feet (10.7M) radius expose combustible materials.
5. Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.
6. For a minimum of 30 minutes following completion of the job.

Compressed Gas Cylinders

Rules for handling cylinders:

1. Do not accept damaged cylinders.
2. Keep protective caps on cylinders while they are not in use.
3. Keep cylinders away from direct flame, heat and sources of ignition.
4. Properly secure cylinders at all times. While moving a cylinder, avoid rough handling and the striking of cylinders.
5. Cylinder contents must be properly labeled; do not rely on the color of the cylinder, and return improperly labeled cylinders to the vendor.
6. Close all valves when not in use.
7. While in use, cylinder valves must have a handle or other shutoff mechanism in.
8. Regulators are to be removed from cylinders when not in use unless the regulator is designed to be capped or the cylinders are in an approved welding cart.
9. Discharge leaking cylinders outdoors by opening the discharge valve slowly one-fourth of a turn.
10. Use proper lifting cradles for cylinders. Do not lift by the valve or protective cap. Ropes and slings are not to be used for lifting cylinders.
11. Compressed gas cylinders are not used for any purpose other than for containing compressed gas—bottles, for example, are not to be used as rollers.

NOTE: Employees who work with or supervise the care of oxygen or fuel gas supply equipment must be properly trained, tested and judged competent for such work.

Using Cylinders

1. Never use a cylinder of compressed gas without a pressure-reducing regulator connected to the cylinder valve.

2. Always close the cylinder valve before attempting to stop leaks.
3. Do not use oil or grease as a lubricant on valves or attachments to oxygen cylinders.
4. Threads on fittings must correspond to cylinder valve outlets.
5. Check valves/flame arrestors are to be utilized on fuel gas/oxygen systems.
6. Do not use oxygen in place of compressed air.
7. Use safety equipment that matches the hazards of the compressed gas.

Storing Cylinders

1. Store cylinders in an upright, secured position, and store empty and full cylinders separately.
2. Do not store oxygen cylinders within 20 feet of combustible materials or fuel gases unless divided by a 5-foot fire resistant wall that is fire-rated for one-half hour.
3. Mark empty cylinders 'Empty,' and they can only be refilled by their owner. A cylinder is considered empty when it only has 25 psi of gas remaining.
4. Cylinders shall not be subjected to temperatures either above 125 degrees F or artificially created low temperatures.
5. Cylinders shall be separated by hazard class. For example, oxidizers must be stored away from flammable gases.

End Of Policy

ATTACHMENT A

Asbestos Awareness Program

Purpose

1.1. To provide basic precautions and protections for employees to avoid exposure to asbestos containing material (ACM) or presumed asbestos containing material (PACM).

Scope

This program applies to all Rangeline Group employees. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers Rangeline Group employees and contractors and shall be used on owned premises, or when an operator's program does not exist or is less stringent.

Definitions

Asbestos – an incombustible, chemical-resistant, fibrous mineral used for fireproofing, electrical insulation, building materials, brake linings, and chemical filters.

Asbestos containing material (ACM) – any material containing more than 1% asbestos.

Friable Asbestos - used for fireproofing, insulation, or sound proofing are considered to be friable, and they readily release airborne fibers if disturbed.

Non- friable Asbestos - vinyl-asbestos floor tile or roofing felts are considered non-friable and generally do not emit airborne fibers unless subjected to sanding or sawing operations.

Class I -Asbestos work - Activities involving the removal of thermal system insulation (TSI) and surfacing asbestos containing material.

Class II - Asbestos work - Activities involving the removal of ACM that is not TSI or surfacing material. This includes removal of asbestos-containing gaskets, packing, wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

Class III - Asbestos work - Includes repair and maintenance operations where ACM, including TSI and surfacing material, is likely to be disturbed to the extent that renders ACM friable or generates visible debris. Class III asbestos work is limited to cutting

away small amounts of ACM, no greater than the amount which can be contained in one standard sized glove bag or waste bag in order to access a building component. In no event shall the amount of disturbed ACM exceed that which can be contained in one glove bag or waste bag measuring 60 inches in length and width.

Class IV - Asbestos work - Includes custodial activities during which employees are involved in clean-up activities of waste and debris containing asbestos containing material.

Competent Person

A designated Rangeline Group employee who has the authority to take prompt corrective actions and has received training and certification equivalent to the EPA's Model Accreditation Plan and equivalent training as conducted by the National Asbestos Center, at the manager or supervisor level, and thereby is knowledgeable in:

- Identifying asbestos hazards in the workplace.
- Selecting appropriate control strategies for asbestos exposure.
- The contents of the OSHA asbestos regulations.
- Work practices for safe asbestos removal/clean-up.

Presumed asbestos containing material (PACM) – thermal insulation and surfacing material found in buildings constructed no later than 1980.

Surfacing material – material that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members or other materials on surfaces for acoustical, fireproofing and other purposes).

Thermal system insulation – ACM applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.

Key Responsibilities

Managers/Supervisors

1. Ensure owners or operators are notified of PACM.
2. Prohibit Rangeline Group employees from working until material in question is confirmed as non-asbestos or abated.
3. Ensure proper employee training is completed.
4. Ensure that all requirements of this program are understood and followed by those working under his/her direction.
5. Perform duties of the Competent Person for asbestos work.

All Employees

1. All employees are required to act in strict compliance with the requirements of this program and delay or discontinue work if there is ever an unresolved concern regarding exposure to asbestos.

Procedure

Health Effects

1. Exposure to asbestos has been shown to cause lung cancer, asbestosis, mesothelioma, and cancer of the stomach and colon. Fibrotic Scaring of the lung tissue

General

1. Rangeline Group employees shall not work or otherwise handle asbestos containing material designated as Class I, III, IV work. Class II work is limited to removal of asbestos containing gaskets and packing materials.

2. All asbestos abatement work, other than the limited scope of Class II work, shall be awarded to qualified asbestos abatement contractors.

3. Client owned and/or operated equipment and facilities, where surfacing material or insulation is present, must be confirmed non-asbestos before Rangeline Group employees disturb that material.

4. Where surfacing material or insulation cannot be confirmed non-asbestos, the client or owner must test, and where necessary abate, the material before Rangeline Group employees are permitted to work.

5. Signs shall be posted and employees will abide warning signs and labels and will not disturb the Asbestos Containing Material.

Approved ACM or PACM Handling

1. The following procedures must be followed when removing gasket or packing materials (Class II asbestos work) containing or presumed to contain asbestos:

2. All employees must fulfill appropriate training, respiratory protection and medical surveillance requirements to handle ACM or PACM.

3. Class II asbestos work, which employees are permitted to perform, is limited to removal of asbestos gasket and packing materials, unless special training for other Class II work has been provided.

4. Removal of gaskets and/or packing shall only be performed by employees that have been properly trained. When gaskets are visibly deteriorated, they are to be removed via wet methods and/or glove bagging.

5. When performing any class II removal of asbestos containing material
    i. The material must be thoroughly wetted prior to its removal
    ii. The material shall be removed in an “intact” state

iii. The material shall be bagged or wrapped and kept wetted until transferred to a closed receptacle no later than the end of the work shift
iv. Any scraping to remove residue must be performed wet.

Training

1. All employees will receive documented training prior to or at their initial assignment and at least annually thereafter who are exposed to airborne concentrations at or above the PEL. Training shall include:

2. The ability to understand health effects associated with exposure to asbestos.

3. Information on the relationship between smoking & exposure to asbestos producing lung cancer.

4. The appropriate personal protective equipment (PPE) and its limitations (such as improper respirator fit). as described in the Rangeline Group PPE Program and its associated training.

5. The Asbestos Control Plan and any associated work practices.

6. A certificate of training shall be provided & maintained.

7. The Rangeline Group written training program shall be made readily available to all affected employees.

Contractors

1. Asbestos contractors shall be pre-screened and approved by the group responsible for contracting the work.

2. Contractors performing work shall comply with the requirements of this standard and all applicable OSHA and environmental regulatory requirements.

3. The following documents must be obtained at least 10 working days (or as soon as possible) prior to beginning the asbestos abatement work:

4. Copy of the contractor's State Contractor's License (renewed annually)

5. SDS for material used for the abatement process

6. Copy of all asbestos Notifications (if required)

7. Copies of asbestos sample analysis (if performed by contractor)

The following are required upon completion of work by the contractor (If an asbestos project completion report is provided by the contractor, these items are often a part of it.): 7.4.1. Work Summary Report, including daily work summaries.

1. Results of all independent third-party air sampling, including asbestos material sampling, personnel air monitoring, clearance sampling results.

2. Waste Shipment Records.

3. Every contracted asbestos job must have assigned a competent person to monitor asbestos work and to assure compliance with all applicable regulations and requirements.

4. An independent third party shall be contracted to perform all required air sampling for contracted asbestos removal.

5. Contractors who are not involved in ACM work, but who may be inadvertently exposed to ACM on Rangeline Group property are to be informed of this potential and advised on proper methods to avoid exposure.

Asbestos Exposure Control

1. Asbestos exposure controls are designed to eliminate or minimize an employee's exposure to airborne asbestos fibers through the use of work practices and engineering controls. If the TWA and/or excursion limit is exceeded, a written Asbestos Exposure Control Program to reduce employee exposure shall be implemented containing means of engineering & work practice controls & the use of respiratory protection.

2. Prior to initiating any asbestos work the Competent Person must perform an asbestos exposure assessment. Subsequent to the exposure assessment, the engineering controls and work practices to be employed shall be identified.

3. Prior to commencement of work, the affected employees shall be briefed on the engineering controls and work practices designed to reduce/maintain the exposure below TWA for the asbestos work. This briefing shall be documented and maintained with the job documentation. Where engineering controls are not feasible work practices such as exhaust systems for hand tools, wet methods, clean-up procedures & PPE shall be used.

4. Wet methods will be employed for all asbestos work as a means to minimize potential airborne exposure wherever possible. ACM shall be wetted from the initiation of the maintenance or renovation operation and wetting agents shall be used continually throughout the work period to ensure that any dry ACM exposed in the course of the work is wet and remains wet until final disposal.

5. Wetting agents, usually a surfactant (dish soap), are generally prepared by mixing 1 to 3 ounces of wetting agent to 5 gallons of water.

Regulated Areas

1. Access to regulated asbestos areas shall be controlled with established barriers, tape, OSHA approved warning signs and other physical controls when airborne concentrations of asbestos are present.

2. The limit shall comply with that of the TWA and/or excursion limit. Access is limited to regulated areas.

3. All employees who perform work in regulated areas shall be covered by this procedure. Employees who perform housekeeping activities during and after construction activities are also covered by this procedure.

4. If employees working immediately adjacent to a Class I asbestos jobs are exposed to asbestos due to the inadequate containment of such job, Rangeline Group shall either remove the employees from the area until the enclosure breach is repaired; or perform an initial exposure assessment pursuant to 1926.1101(f).

Personnel Air Monitoring

1. Monitoring shall occur to ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) in 30 minutes.

2. An independent/third party air sampling person shall perform all required air sampling during contractor asbestos work and provide the results to the Rangeline Group Competent Person. Note: Air sampling is not required for glove bag activities that are covered under a Negative Exposure Initial Assessment.

3. The air quality is to be determined from breathing zone air samples. The samples shall be representative of the 8-hour TWA and 30-minute short-term exposure. Measurements are required for documentation.

4. Affected employees and/or their designated representatives are to be provided the opportunity to observe asbestos exposure monitoring.

5. Air sampling analysis shall be performed by an American Industrial Hygiene Association (AIHA) accredited laboratory.

6. Where the asbestos exposure assessment (in the absence of quantitative personnel monitoring results) does not present objective, convincing data that indicates the ACM to be handled will not (under the worst circumstances) release airborne fibers, personnel air monitoring shall be performed to quantify exposure.

7. If personnel monitoring is considered necessary during the asbestos exposure assessment, in an effort to verify exposures would be maintained below the PEL/excursion limit, respiratory protection shall be utilized until such time that sufficient sampling results verify that respiratory protection is not required.

8. The Rangeline Group Safety Department is to be consulted for advice and assistance in performing personnel air sampling activities.

9. The number of samples necessary to be considered "representative" is dependent upon many factors and must be determined in consultation with the Rangeline Group Safety Manager, certified Industrial Hygienist consultant, or a third-party air sampling professional.

10. Affected employees shall be notified of monitoring results, which represent the employee's exposure, as soon as possible following receipt of the monitoring results.

11. Employees shall be notified in writing either individually or by posting at a centrally located place that is accessible to affected employees.

12. Once representative sampling indicates that exposure levels for that particular activity are consistently below the OSHA established permissible limit and/or excursion limit, the requirement for respiratory protection may be waived.

13. It is imperative that accurate personnel air sampling records are maintained in order to justify any relaxation of respiratory protection requirements.

14. Results of air sampling data must be maintained in the asbestos job documentation.

Medical Surveillance Program

1. All Rangeline Group employees who for a combined total of 30 or more days per year are engaged in Class II asbestos work or who are exposed at or above the permissible exposure limit for a combined 30 days or more per year shall be included in the Rangeline Group medical surveillance program.

2. Note: For purposes of this requirement, any day in which an employee is engaged in Class II or Class III work or a combination thereof for one hour or less and, while doing so, adheres fully to the work practices specified in this standard, shall not be counted. The medical surveillance program shall be made available according to the following schedules:

3. Prior to assignment of an employee to an asbestos area where negative pressure respirators are worn.

4. Where exposure to asbestos may be at or above the permissible exposure level for 30 or more days per year, or where employees are engaged in Class II asbestos work for 30 or more days per year, at least annually thereafter, as long as exposures exist

5. Asbestos medical examination must be given within ten (10) working days following the thirtieth day of exposure.

6. If an examining physician determines that any of the examinations should be provided more frequently than specified, they shall be provided at the periodicity specified by the physician.

7. No asbestos medical examination is required when complete records of such examination, performed less than twelve months prior to commencement of asbestos work are available.

8. As part of the medical surveillance, the attending physician shall provide a written opinion of the results of the medical examination to AJC and the Contract Medical Surveillance Provider, who in turn will provide a copy to the affected employee within 30 days.

9. In accordance with OSHA regulations, once employees are no longer exposed to asbestos their inclusion in the medical surveillance program is no longer required.

Respiratory Protection and Personal Protective Equipment

1. 12.1. The use of approved respirators shall be at no cost to the employee and will be used in conjunction with work practice controls, work operations, to reduce exposure and in emergencies.

2. The respirator shall be provided at no cost to the employees and shall be chosen in accordance with the Rangeline Group Respiratory Protection Program and shall be approved by NIOSH. Powered, air-purifying respirators shall be available when the employees choose to use this type or the hazard assessment process requires this type, or when the respirator will provide more adequate protection. Prerequisites for use of respiratory equipment, regarding asbestos, include:

3. Successfully passing a respiratory physical.

4. Successfully completing annual respiratory protection training.

5. Successfully passing a respirator fit test.

6. Additional PPE when above the TWA shall include:

7. Protective coveralls

8. Gloves

9. Head coverings / Foot coverings

10. Vented goggles / Face Shields

11. And others based on the hazard

Waste Disposal

1. 13.1. Asbestos waste, scrap, debris, bags, containers, equipment, and contaminated clothing shall be collected and disposed of in sealed, labeled impermeable bags of greater than 6 mils thickness or other closed, labeled, impermeable containers.

2. 13.2. Bags or containers shall be imprinted and clearly labeled with the following OSHA asbestos hazard warning and address:

DANGER

CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST

CANCER AND LUNG DISEASE HAZARD

Company NAME

Site Address

Contractor's Name

Contractor's Address

3. Bags/containers shall be clearly labeled, for DOT, as: RQ, Asbestos, 9, NA2212, PG III

4. Containers shall have a DOT number 9 diamond label on the container if the shipping container is greater than 66 pounds. For assistance with DOT labeling requirements, contact the Rangeline Group Safety Manager.

5. An Asbestos Waste Shipment Record shall be utilized. Check with the landfill prior to shipping to see if they require their own shipping record or use a Waste Manifest – contact the Safety Director for copies.

6. Asbestos shall be transported to an approved landfill that accepts asbestos. A licensed waste hauler may be used to transport the packaged ACM. Transport vehicles shall either be enclosed or covered. Do not use vehicles with compactors to transport ACM.

7. A shipping form shall accompany Rangeline Group the ACM, during transport, to the landfill.

Record Keeping

1. All records relating to any asbestos activity shall be maintained by Rangeline Group permanently.
   The following records shall be maintained:

2. Exposure Assessments that are being relied upon to support a location's position that asbestos work (specific or generic) will not result in exposures above the PEL or excursion limit.

3. Employee asbestos exposure records (personnel air monitoring).

4. Medical Surveillance records.

5. Training records.

6. Shipping papers and disposal records.

7. Copies of notification letters sent to Governmental agencies.

8. Pre-project asbestos sampling results.

9. Post-project clearance sampling results.

10. Daily Work Summaries.

11. Project Completion Closure Report, if provided.

End Of Policy

ATTACMENT B
Confined Space Entry Plan (Permit Required)

Authority and Scope

Regulation: 29 CFR 1910.146

Scope: This plan applies to all personnel, including contractors, who enter or work in confined spaces, or supervise such activities.

Policy Statement

It is the policy of Rangeline Group to establish a uniform procedure for safe entry into confined spaces and ensure that proper protection is taken for all employees, contractors, subcontractors, and employees of contractors working in or near confined spaces. The company will consult with affected employees and their authorized representatives on the development and implementation of all aspects of the permit space program and provide them with all information required for program development.

Plan Administrator. The plan administrator is responsible for implementing this plan and has authority to make decisions to ensure the success of this program. The plan administrator will:

- Evaluate the workplace to determine which spaces, if any, are permit-required confined spaces.
- Develop a written confined space entry plan to protect the safety and health of all affected employees.
- Perform the initial and periodic evaluation of the hazards associated with each confined space.
- Inform employees via signs and other means where the confined spaces are located and the hazards they pose.
- Determine what effective measures will be taken to prevent unauthorized employees from entering permit spaces.
- Authorize entry for non-permit confined spaces and jointly approve entry with the supervisor (or designee) for permit-required confined spaces.
- Determine which employees will enter permit-required confined spaces and authorize their entry.
- Monitor the effectiveness of the plan.
- Provide all testing, data management, and personal protective equipment.
- Provide employee training and technical assistance as needed.
- Maintain copies of all confined space entry work permits for at least 1 year.
- Maintain the inventory of permit-required confined spaces.
- Review confined space programs submitted by subcontractors.

Entry Supervisor. The entry supervisor is qualified and authorized to approve permit required confined spaces. The entry supervisor will be identified on the permit and sign it before any

entry begins and is authorized to terminate entry when a prohibited condition arises in the confined space.

Rescue Team Members. The rescue team members will be trained to respond to rescue calls by any person recognizing a need for rescue from a confined space. Non-Entry Rescue team members that are employees of Rangeline Group will have current certification in first aid and CPR and will have received the same training as authorized entrants.

When Entry Rescue Teams are required, a 3rd party company who is authorized and trained to the OSHA requirements will be utilized.

Plan Review and Update

The confined space plan will be reviewed and updated when:

- Changing conditions cause the current plan to lose its maximum protection.
- A review of confined space permits (using cancelled permits retained within 1 year after each entry) indicates revision is necessary.

Copies of the plan are available for review at each work site.

Definitions

Attendant--an individual stationed outside one or more permit-required confined spaces who monitors the authorized entrants and who performs all attendant's duties assigned in the employer's permit space program.

Authorized entrant--an employee who is authorized by the employer to enter a permit required confined space.

Confined space--a space that:

- Is large enough and configured so that an employee can bodily enter and perform assigned work
- Has limited or restricted means for entry or exit (For example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.)
- Is not designed for continuous employee occupancy

Entry--the action by which a person passes through an opening into a confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

Entry permit--the written or printed document that is provided by the employer that allows and controls entry into a permit space and that contains the information specified in this section.

Entry supervisor--the person (such as the employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned,

for authorizing entry and overseeing entry operations, and for terminating entry as required by this section.

Hazardous atmosphere--an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

- Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL)
- Airborne combustible dust at a concentration that meets or exceeds its LFL

Hot work permit--the employer's written authorization to perform operations (for example, riveting, welding, cutting, burning, and heating) capable of providing a source of ignition.

Immediately dangerous to life or health (IDLH)--any condition that poses an immediate or delayed threat to life, that would cause irreversible adverse health effects, or that would interfere with an individual's ability to escape unaided from a permit space.

Non-permit confined space--a confined space neither contains nor, with respect to atmospheric hazards, has the potential to contain any hazard capable of causing death or serious physical harm.

Permit-required confined space (permit space)--a confined space that has one or more of the following characteristics:

- Contains or has a potential to contain a hazardous atmosphere
- Contains a material that has the potential for engulfing an entrant
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross section
- Contains any other recognized serious safety or health hazard

Evaluation of Confined Spaces

Each confined space will be evaluated to determine its classification as a permit-required confined space. No one may enter any confined space until it has been evaluated.

Confined Space Entry Requirements

NOTE : ALL Confined Space Entry SHALL have the following:

- **A Trained attendant monitoring the space at all time**
- **Proper gas monitoring through pre-entry and continuous air testing with a calibrated 4 gas monitor**
- **Forced air ventilation adequate for the space and means of non-entry rescue method to be maintained at all times**
    - **IF non-entry rescue methods are not practical or feasible, a rescue team must be on site during all operations. IF the requirements cannot be met, entry into the space SHALL NOT be made.**

Non-Permit Confined Space Entry

General Requirements

Employees entering a non-permit confined space need not comply with the permit requirements for confined spaces or duties of authorized personnel provided that:

- It has been demonstrated and documented that the only hazard is actual or potentially hazardous atmosphere.
- It has been determined that forced air ventilation alone is sufficient to maintain safe entry.
- The monitoring and inspection data required by the plan are being used.
- Test data collection that requires an initial entry must be performed in compliance with the permit-required confined space and entry supervisor requirements.
- The determinations and data required are documented and available to employees who enter the space.

Entry

Entry without a permit must be performed in accordance with the general requirements for non-permit space entry and the following specific requirements:

- Any condition making it unsafe to remove an entrance cover will be eliminated before the cover is removed.
- Before covers are removed, the entrance will be promptly guarded by a barrier that will prevent an accidental fall through the opening and will protect employees in the space from foreign objects entering the space.

- If it is necessary to enter a confined space to collect initial monitoring data or inspect for hazards, the full provisions for entering a permit-required confined space must be implemented.

- Before an employee enters the space, the internal atmosphere will be tested for the following conditions, in the order given, with a calibrated direct-reading instrument:
    - Oxygen content
    - Flammable gases and vapors
    - Potential toxic air contaminants
    - Other

- There must be no hazardous atmosphere within the space whenever any employee is inside the space.

- Continuous forced air ventilation will be used as follows:

    - An employee may not enter the space until forced air ventilation has eliminated a hazardous atmosphere.

- Forced air ventilation will be directed to ventilate the immediate areas where an employee is or will be, and will continue until all employees have left the space.
- The air supply for the ventilation will be clean and may not increase the hazard.

The atmosphere within the space will be continuously tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere.

- If a hazardous atmosphere is detected during entry:
  - Each of the employees will leave the space immediately.
  - The space will be evaluated to determine how the hazardous atmosphere developed.
  - Measures will be implemented to protect employees from the hazardous atmosphere before a subsequent entry.

- Before each entry, the employer will verify that the space is safe for entry and that the measures above have been taken, with a written certification giving the date, location of the space, and signature of the person providing the certification.

Pre-Entry Certification

The Supervisor will verify that pre-entry measures have been followed through a written certification that contains the date, the location of the space, and the signature of the person providing the certification. The certification will be made before entry and will be made available to each employee entering the space or to that employee's authorized representative.

Reclassification of a Permit-Required Space

A space classified as a permit-required space may be reclassified as a non-permit space if:

- The permit space poses no actual or potential atmospheric hazards and if all hazards are eliminated without entering the space.
- Testing and inspection demonstrate that the hazards have been eliminated.
- The Supervisor or designee has documented that the basis for determining that all hazards have been eliminated through a certification that contains the date, location of the space, and the signature of the person making the determination.

If it is necessary to enter the permit space to eliminate hazards, such entry will be performed under the permit-required confined space requirements of this plan.

New hazards. When hazards arise within a permit-required space that has been declassified to a non-permit space, anyone in the space must exit.

Permit-Required Confined Space

The following measures will be implemented by the Supervisor or designee to ensure the safety of entrants and to prevent unauthorized entry into a confined space:

- Identify and evaluate the hazards of the permit spaces before employees enter them by performing atmospheric testing.
- Post danger signs outside of confined spaces such as "DANGER—PERMIT-REQUIRED CONFINED SPACE—AUTHORIZED ENTRANTS ONLY" or an equally effective means will be used.
- Designate the persons who are to have active roles in entry operations, their duties, and provide each with the training required by this program.
- Summon rescue and emergency services for rescuing entrants and for preventing unauthorized personnel from attempting rescue.
- Coordinate entry operations when employees of more than one employer are entering a permit space so that they do not endanger each other.
- Prepare, issue, use, and cancel entry permits.
- Coordinate entry after operations are completed.
- There will be at least one attendant outside the permit space for the duration of entry operations.
- When a single attendant monitors multiple spaces, enable the attendant to respond to an emergency in one or more spaces without distraction from the attendant's responsibilities.

Equipment

Entrants, attendants, and any other support personnel will be provided with all equipment necessary to work in a confined space safely, at no cost to them. Following is a list of the type of equipment that will be provided as needed:

- Testing and monitoring equipment
- Ventilating equipment needed to obtain acceptable entry conditions
- Communications equipment
- Personal protective equipment if feasible engineering and work practice controls do not adequately protect employees
- Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency
- Barriers and shields as required
- Equipment, such as ladders, needed for safe entry and exit by authorized entrants
- Rescue and emergency equipment, except to the extent that the equipment is provided by rescue services
- Other

Permit System

Before entry is authorized, the Entry Supervisor will prepare an entry permit that describes the means, procedures, and practices necessary for safe entry, including:

- Specifying acceptable entry conditions, including recording of gas detector readings;
- Isolating the permit space;
  Purging, flushing, or ventilating the permit space to eliminate or control atmospheric hazards;
- Providing barriers as necessary to protect entrants from external hazards; *and*
- Verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.

Before entry, the entry supervisor will sign the permit to authorize entry. The completed permit will be made available to all authorized entrants to confirm that pre-entry preparations have been completed. The duration of the permit will not exceed the time required to complete the assigned task or job.

The entry supervisor will terminate entry and cancel the permit when:

- Operations have been completed; *or*
- A condition that is not allowed under the entry permit arises in or near the permit space.

The entry supervisor will retain each entry permit for at least 1 year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation will be noted on the permit so that appropriate revisions to the plan can be made.

Entry Permit

No one may enter a permit-required confined space except authorized entrants working under a valid permit. The entry permit that authorizes entry into a permit space will contain the following items:

- A description of the space to be entered
- The purpose of the entry
- The date and authorized duration of the entry
- The authorized entrants
- The personnel serving as attendants
- The individual serving as the entry supervisor
- The hazards of the permit space to be entered
- The measures used to isolate the space and eliminate or control hazards before entry
- The acceptable entry conditions
- The results of initial and periodic tests performed, including: *[Include the Project Manager or designees or initials of the testers and indicate when the tests were performed.]*

    - Test conditions in the permit space to determine if acceptable entry conditions exist before entry is authorized to begin, except that if isolation of the space is infeasible because the space is larger or is part of a continuous system (such as sewer), pre-entry testing will be performed to the extent feasible before entry is authorized and, if entry is authorized, entry conditions will be continuously monitored in the areas where authorized entrants are working.
    - Test or monitor the permit space as necessary to determine if acceptable entry conditions are being maintained during the course of entry operations.
    - When testing for atmospheric hazards, test first for oxygen, then for combustible gases and vapors, then for toxic gases and vapors.
- The rescue and emergency services that can be called and how to call them
- The communication procedures used by entrants and attendants to maintain contact with each other
- Equipment, such as testing equipment, to be provided for compliance with the confined space regulation
- Any other information necessary to ensure employee safety
- Any additional permits, such as hot work permits, issued for work in the space

Permit duration. The duration of the permit will not exceed the time required to complete the assigned task or job identified on the permit.

Canceled Permit

The entry supervisor will cancel entry permits when work in the confined space is completed or when a condition exists in the space that is not allowed by the permit. New conditions will be noted on the canceled permit and used in revising the permit space program.

Contractors

Project Manager or designee will ensure that each contractor or subcontractor hired to enter a confined space is:

- Informed that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit space program
- Trained to enter the space
- Aware of all hazards associated with the space
- Given a copy of the permit entry requirements
- Provided with all the precautions and procedures to be followed when in or near a confined space
- Coordinating entry operations with the contractor, when both host employer personnel and contractor personnel will be working in or near permit spaces
- Debriefed at the conclusion of the entry operations concerning the permit space program and about any hazards confronted or created in permit spaces during entry operations

Each contractor that performs permit-required confined space entry will:

- Obtain any available information regarding permit space hazards and entry operations from Project Manager or designee.
  Coordinate entry operations with Project Manager or designee when company employees and contractor personnel jointly work in or near permit spaces.
- Inform Project Manager or designee of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces method, either through a debriefing or during the entry operation.

Employee Training

Rangeline Group will ensure training is provided so that employees acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned while working in or near confined spaces.

General Training

Training will be provided to all employees whose work is regulated by the confined space plan:

- Before the employee is first assigned confined space duties
- Before there is a change in assigned duties
- Before there is a change in permit space operation that presents a hazard about which an employee has not previously been trained
- Whenever the employer has reason to believe there are deviations from the confined space procedures or inadequacies in the employee's knowledge of the procedures

The training will establish employees' proficiency in their duties and introduce new or revised procedures, as necessary, to comply with the confined space rules.

Specific training program elements. A training program has been established for:

- Entrants, Attendants
- Entry supervisors
- Rescue teams

Rescue Team Training

In addition to the specific duties, rescue team members will be trained to:

- Understand the rescue plan and procedures for each type of confined space at the facility or job site.
- Learn the access ways and configurations of confined spaces in order to minimize response time.

ALL rescue team members will be certified in first aid and CPR.

Trainee Certification

The Supervisor will verify that the training required has been accomplished and that the employee is proficient in his or her authorized duties. The certification will contain the signature of the trainers, and the dates of training. It will be available for inspection by employees and their authorized representatives.

Training Program Assessment

Assessments of the effectiveness of employee training will be periodically conducted by Project Manager or designee. Copies of the assessments will be maintained for duration of employment.

Refresher Training

Refresher training will be provided as needed to maintain employee proficiency in entry procedures and safety.

Duties of Entry Personnel

List of Authorized Personnel

See attached document for a list of authorized entrants, attendants, and other personnel who are authorized to work in or near permit-required confined spaces.

Authorized Entrants

All authorized entrants will:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- Properly use testing, monitoring, ventilating, communications, lighting, and personal protective equipment, barriers and shields, ladders, and any other equipment necessary for safe entry and exit.
  Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space.
- Alert the attendant whenever he or she recognizes any warning sign or symptom of exposure to a dangerous situation, or detects a prohibited condition.
- Leave the permit space as quickly as possible whenever:
  - An order to evacuate is given by the attendant or the entry supervisor.
  - The entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
  - The entrant detects a prohibited condition.
  - An evacuation alarm is activated.

- The attendant can no longer perform his or her duties due to injury, illness, or other emergency.

- A condition outside the confined space exists that could endanger the entrant.

Attendants

All attendants will:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- Know the behavioral effects of the hazards on entrants.
- Keep an accurate count of how many entrants are in a permit space at any given time, and ensure an accurate means of identifying a specific entrant who is in the space.
- Remain outside the permit space when operations are under way until relieved by another attendant.
- Communicate with entrant(s) as necessary.
- Monitor activities inside and outside the permit space to determine if it is becoming dangerous and order the entrant(s) to evacuate if: o A prohibited condition is detected; o The entrant shows behavioral effects of hazard exposure; o A situation outside the space could endanger the entrant(s); *or* o The attendant cannot safely perform all his or her duties.
- Summon rescue and emergency services if the entrant needs help to escape the confined space.
- Take the following steps when unauthorized persons attempt to enter the confined space:
  - Warn such persons away from the area;
  - Advise the unauthorized person(s) to exit the space if they have entered it;

    or

  o Inform authorized entrants and the entry supervisor that an unauthorized person has entered the space.

- Perform non-entry rescues as specified under the rescue procedures (see the Rescue Services section).
- Perform no other activities that might interfere with the primary duty of monitoring and protecting authorized entrants.

Entry Supervisors

Each entry supervisor will:

- Know and understand the hazards that may be faced during entry.
- Verify, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment

specified by the permit are in place before endorsing the permit and allowing entry to begin.

- Terminate the entry and cancel the permit as required by this program.
- Verify that rescue services are available and that the means for summoning them are operable.
- Remove unauthorized individuals who enter or attempt to enter the permit space during operations.
- Determine that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

Rescue Services

Rescue Personnel List

This information will be added for each project, and posted at the project location.

Rescue Requirements for Contract Services

When Rangeline Group arranges to have an off-site rescue service perform rescue operations, Manager or designee will:

- Inform the rescue service of the hazards they may confront when called on to perform a rescue, *and*
- Provide the rescue service with access to all permit spaces from which rescue may be necessary to allow them to develop rescue plans and practice rescues. *Entrant Retrieval System*

In order to facilitate non-entry rescue, retrieval systems or methods will be used whenever an authorized entrant enters a confined space, unless this would increase risk or would not assist the rescue. Each authorized entrant will use a chest or full-body harness with a retrieval line.

Wristlets may be used in lieu of a harness if it can be demonstrated that they are a safer, more effective alternative. The other end of the retrieval line will be attached to a mechanical device or fixed point outside the permit space so that rescue can begin as soon as it becomes necessary.
Attendant Responsibilities

Attendants may attempt a non-entry rescue using the retrieval system to remove an entrant from the confined space only if all the following conditions apply:

- The entrant is unable to self-rescue.
- A life-threatening danger to the entrant is imminent.
- The attendant remains outside the confined space at all times.
- The entrant is attached to the retrieval system.

- The attendant can visually or verbally confirm from outside the confined space that the retrieval system is disentangled from objects in the confined space and free of other obstructions.

End Of Policy

ATTACHMENT C

Fall Protection Program

Policy Statement

It is the policy of Rangeline Group that all employees will be protected from exposure to fall hazards by incorporating engineering controls whenever possible, and by installing or implementing fall protection systems. Fall protection is required for every worker exposed to a fall of 6 feet or more from unprotected sides or edges, holes, leading edges, wall openings, and other fall hazards. All employees and contractors will comply with all requirements related to safely working from elevated work locations. Rangeline Group management will review and approve the use of any elevated work platforms not addressed in this program. Rangeline Group will provide a training program for each employee potentially exposed to a fall hazard. The program will enable employees to recognize the hazards of falling and will train them in the procedures to follow to minimize these hazards.

Authority and Scope

Authority: 29 CFR 1926.500 – 503, 30 CFR 77.1710(g)

Scope: All employees with potential exposure to falls of greater than 6 feet, except when an employee is inspecting, investigating, or assessing workplace conditions prior to the actual start of work or after all work has been completed.

Site Management is responsible for administering the fall protection program. :

- Identify work areas, processes, or tasks that require fall protection.
- Evaluate fall hazards.
- Select appropriate fall protection systems.
- Monitor fall protection use to ensure that fall protection systems are used properly.
- Arrange for and/or conduct training.
- Evaluate the fall protection program.
- Update the written fall protection plan as needed.

Supervisors. Supervisors are responsible for ensuring that fall protection is properly provided in their particular areas. In addition to being knowledgeable about the program requirements for their own protection, supervisors will also ensure that the program is understood and followed by the employees under their charge. Supervisor will:

- Ensure that employees under their supervision (including new hires) have received appropriate training.
- Ensure the availability of appropriate fall protection equipment.
- Be aware of tasks requiring the use of fall protection.
- Enforce the proper use of fall protection when necessary.
- Ensure that fall protection equipment is properly cleaned, maintained, and stored.
- Continually monitor work areas and operations to identify fall hazards.

- Coordinate with Site Management on how to address fall hazards or other concerns as they arise.

Safety Department - will develop and update training programs and maintain a schedule of training for all employees who may be exposed to fall hazards.

Employees. Employees who may be exposed to fall hazards will:

- Ensure that all fall hazards are addressed before working in an area where they may be exposed.
- Inform the supervisor or Site Management of any fall hazards that they feel are not adequately addressed in the workplace and of any other concerns regarding the program.
- Care for and maintain fall protection equipment as instructed.

Plan Review and Update

This Plan will be reviewed whenever:

- Changes at the worksite(s) render any section of this Plan obsolete.
- There are changes in the types of fall protection systems or equipment to be used by employees.
- Incidences of falls resulting in injury demonstrate inadequacies in the design or use of fall protection systems or equipment.

Definitions

Anchorage—a secure point of attachment for lifelines, lanyards, or deceleration devices.

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 it to other components of a personal fall arrest system.

Competent person (qualified person)—a person capable of identifying existing and predictable hazards in the work area and conditions, and who understands how to control or minimize those hazards.

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 carabiner, 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-retracting lanyard).

Controlled access zone (CAZ)—an area in which certain work (e.g., overhand bricklaying, installing decking, etc.) may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled.

Deceleration device—any mechanism, such as a rope grab, rip-stitch lanyard, specially woven lanyard, tearing or deforming lanyards, automatic self-retracting lifelines/lanyards, etc. which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

Deceleration distance—the additional vertical distance a falling employee travels from the moment of activation (at the onset of fall arrest forces) of the deceleration device to the location of the employee when he/she comes to a full stop.

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

Free fall distance—the vertical displacement of the fall arrest attachment point on the employee's body belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall. This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

Guardrail system—a barrier erected to prevent employees from falling to lower levels.

Hole---a gap or void 2 inches (5.1 cm) or more in its least dimension, in a floor, roof, or other walking/working surface.

Infeasible—it is impossible to perform the construction work using a conventional fall protection system (i.e., guardrail system, safety net system, or personal fall arrest system) or that it is 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 body harness to a deceleration device, lifeline, or anchorage.

Leading edge—the edge of a floor, roof, or formwork for a floor or other walking/working surface (such as the deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed. A leading edge is considered to be an "unprotected side and edge" during periods when it is not actively and continuously under construction.

Lifeline—a component consisting of a flexible line for connection to an anchorage. A vertical lifeline attaches to an anchorage at one end and hangs vertically. A horizontal lifeline attaches to an anchorage at each end and stretches horizontally. Both horizontal and vertical lifelines provide a point of connection for lanyards.

Lower level—those areas or surfaces to which an employee can fall. Such areas or surfaces include, but are not limited to, ground levels, floors, platforms, ramps, runways, excavations, pits, tanks, material, water, equipment, structures, or portions thereof.

Mechanical equipment—all motor or human propelled wheeled equipment used for roofing work, except wheelbarrows and mop carts.

Opening—a gap or void 30 inches (76 cm) or higher and 18 inches (48 cm) or wider, in a wall or partition, through which employees can fall to a lower level.

Personal fall arrest system (PFAS)—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, deceleration device, lifeline, or suitable combinations of these.

Positioning device system—a body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning.

Roof—the exterior surface on the top of a building.

Roofing work—the hoisting, storage, application, and removal of roofing materials and equipment, including related insulation, sheet metal, and vapor barrier work, but not including the construction of the roof deck.

Safety monitoring system—a safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.

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.

Snaphook—a connector comprised of a hook-shaped member with a normally closed keeper. Snaphook will be equipped with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection.

Toeboard—a low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls of personnel.

Unprotected sides and edges—any side or edge (except at entrances to points of access) of a walking/working surface, e.g., floor, roof, ramp, or runway where there is no wall or guardrail system at least 39 inches high.

Walking/working surface—any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork, and concrete reinforcing steel, but not including ladders, vehicles, or trailers, on which employees will be located in order to perform their job duties.

Warning line system—a barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge, and which designates an area in which roofing work may take place without the use of guardrail, body belt, or safety net systems to protect employees in the area.

Determination of Need for Fall Protection

Fall protection is required wherever the potential to fall 6 feet or more exists. Site Management has conducted or overseen a job hazard analysis (JHA) for each activity that has the potential for fall hazards. The survey includes a list of locations and/or activities at Site Management worksites where the potential to fall exists.

Below are examples where a fall hazard exists and fall protection is required:

- Flat and low sloped roof locations, when within 6 feet of the roof edge or during roof repair/maintenance

- Exterior and interior equipment platforms, catwalks, towers, etc. 6 feet or more above the lower level
- Exterior and interior fixed ladders above 20 feet
- Mezzanine and balcony edges
- Tasks requiring use of articulating aerial lifts
- Tasks requiring employees to lean outside vertical rails of ladders
- Scaffolding erection 10 feet in height or greater
- Wall openings when the outside bottom edge of the wall opening is (6) feet or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches above the walking/working surface
- Steel erection for heights 15 feet or greater
- Installation of metal decking for leading edges 30 feet or greater

Fall Protection Program

Fall protection is a concept that describes the systems, processes, procedures, equipment, and regulations used to protect employees from falls and to reduce the risk of falling. There are five classes of fall protection employed at Rangeline Group worksites. Each is based on the risk of exposure to hazards, and level of knowledge required by the employee. The first four classes provide 100% fall protection and will be implemented by Rangeline Group in descending order with Class 1 as the primary protection. The fifth addresses situations where it has proven to be infeasible to provide a system to prevent or arrest falls.

The classes, in order of priority for implementation:

Class 1—Hazard Elimination (engineering controls)

Class 2—Fall Protection System

Class 3—Fall Restraint System

Class 4—Personal Fall Arrest Systems

Class 5—Fall Protection Plan (work procedures)

Hazard Elimination

In this form of fall protection, a process or work activity is redesigned or engineered to eliminate employee exposure to a fall hazard. This is often not recognized as fall protection because the solution leaves no visible hazard or need for a system to protect the employee. The *best* means of providing fall protection is always to eliminate the hazard. Work processes can be redesigned, special tools and equipment employed, or the work can be moved to a safer place. A good example of elimination of a hazard is building an exterior wall and roof trusses on the ground and then using a crane to lift them into the higher position, rather than having the employee do this work at elevation]

Rangeline Group will eliminate employee exposure to fall hazards wherever feasible through the redesign of the worksite or other engineering controls.

Engineering Controls

Rangeline Group will select appropriate engineering controls to prevent falls as the first option for fall protection. Engineering controls include:

- Relocate certain tasks to ground level
- Use a telescoping arm
- Use a qualified contractor in extremely hazardous areas

Fall Protection System

Fall protection systems passively barricade employees from reaching the hazard. No special training is required to know how to work safely around a fall hazard protected by a fall protection system.

Guardrails

Guardrail systems will be erected at unprotected edges, ramps, runways, or holes where it is determined by Site Management that erecting such systems will not cause an increased hazard to employees. Guardrails will be made from steel, wood, and wire rope for all worksites. When necessary and feasible on the basis of job location or requirements, they will be placed:

- On all open sided floors
- Around all open excavations or pits
- On leading edges of roofs or mezzanines

When guardrail systems are used to protect workers from falls, the systems will be capable of withstanding a force of at least 200 pounds applied within 2 inches of the top edge in any outward or downward direction. When the 200 pounds test is applied in a downward direction, the top edge of the guardrail will not deflect to a height less than 39 inches above the walking/working level. Mid-rails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members will be capable of withstanding a force of at least 150 pounds applied in any downward or outward direction at any point along the mid-rails or other member.

The top edge height of top rails, or (equivalent) guardrails will be 42 inches plus or minus 3 inches, above the walking/working level. When workers are using stilts, the top edge height of the top rail will be increased an amount equal to the height of the stilts. If wire rope is used for top-rails, it will be flagged at not more than 6 feet intervals with high-visibility material.

Screens, mid-rails, mesh, intermediate vertical members, or equivalent intermediate structural members will be installed between the top edge of the guardrail system and the walking/ working surface when there are no walls or parapet walls at least 21 inches high. When mid-rails are used, they will be installed at a height midway between the top edge of the guardrail system and the walking/working level. When screens and mesh are used, they will extend from the top rail to the walking/working level and along the entire opening between top rail supports. Intermediate members, such as balusters, when used between posts, will not be more than 19 inches apart.

Other structural members, such as additional mid-rails and architectural panels, will be installed so that there are no openings in the guardrail system more than 19 inches.

Guardrail systems will be surfaced to protect workers from punctures or lacerations and to prevent clothing from snagging. In order to prevent cuts and lacerations, top-rails and mid-rails of guardrail systems will be at least one-quarter inch nominal thickness or diameter. The ends of top rails and mid-rails will not overhang terminal posts, except where such an overhang does not constitute a projection hazard.

Guardrail Inspections

Temporary guardrail systems will be visually inspected daily by a competent person, and a complete structural inspection will be completed weekly by a competent person.

Permanent guardrail systems will be subject to a structural inspection annually by a competent person.

Guarding Hoist Areas

When guardrail systems are used at hoisting areas, a chain, gate, or removable guardrail section will be placed across the access opening between guardrail sections when hoisting operations are not taking place.

Guarding Holes

When a hole is not in use, it will be covered or provided with guardrails along all unprotected sides or edges. Uncovered holes will be protected by guardrail systems set up on all unprotected sides or edges. When holes are used for the passage of materials, the hole will have no more than two sides with removable guardrail sections.

If guardrail systems are used around holes that are used as access points (such as ladderways), gates will be used, or the point of access will be offset to prevent accidental walking into the hole.

If guardrails are used at unprotected sides or edges of ramps and runways, they will be erected on each unprotected side or edge.

Fall Restraint

Fall restraint systems keep employees from reaching the fall hazard and require employees to be trained to recognize hazards and to know how to correctly establish and use the system. This is a type of work restraint for employees who may be working on the tops of round structures such as tanks, or, on roofs adjacent to unprotected edges or openings.

Positioning Device System

Positioning device systems are intended primarily to protect construction workers doing formwork and reinforcing steel work. This type of system enables an employee to work with both hands free on a surface such as a wall or other vertical structure.

Body harness systems are to be set up so that workers can free-fall no farther than 2 feet. They will be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds, whichever is greater. Requirements for snap hooks, D-rings,

and other connectors used with positioning device systems will meet the same criteria as those for personal fall arrest systems.

Personal Fall Arrest Systems (PFASs)

Where acceptable fall protection or restraint systems are not feasible, employees will use a PFAS or other fall protection method with equivalent protection. All designated employees will be trained to use and maintain PFASs before entering a worksite.

A PFAS will consist of a full body harness, shock-absorbing lanyard with locking type snap-hook, and an anchor point capable of supporting 5,000 pounds per worker. A PFAS will do all of the following:

- Limit maximum arresting force on an employee to 1,800 pounds when used with a body harness.
- Be rigged so that an employee can neither free fall more than 6 feet nor contact any lower level.
- Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet.
- Have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet or the free fall distance permitted by the system, whichever is less.

Employees must wear harnesses with the attachment point in the center of the back near shoulder level or above the wearer's head.

All components of a PFAS will meet the specifications of the OSHA Fall Protection Standard and will be used in accordance with the manufacturer's instructions.

Body belts are prohibited as fall protection. The use of body belts in a fall protection system is prohibited, but body belts can be used in a positioning device system.

Snap-hooks and D-Rings

The use of non-locking snap-hooks is prohibited.

D-rings and locking snap-hooks will have a minimum tensile strength of 5000 pounds and be proof-tested to a minimum tensile load of 3600 pounds without cracking, breaking, or suffering permanent deformation.

Lifelines, Ropes, and Straps

Lifelines will be designed, installed, and used under the supervision of Site Management. They will protect users against cuts and abrasions and be equipped with horizontal lifeline connection devices capable of locking in both directions on the lifeline when used on suspended scaffolds or similar work platforms that have horizontal lifelines that may become vertical lifelines.

Self-retracting lifelines and lanyards that automatically limit free fall distance to 2 feet or less will be capable of sustaining a minimum tensile load of 3,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.

Self-retracting lifelines and lanyards that do not limit free fall distance to 2 feet or less, rip-stitch lanyards, and tearing and deforming lanyards will be capable of sustaining a minimum tensile load of 5,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.

Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body belts and body harnesses will be made of synthetic fibers. Lanyards and vertical lifelines will have a minimum breaking strength of 5,000 pounds.

Horizontal Lifelines. Horizontal lifelines will be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two. Horizontal lifelines may, depending on their geometry and angle of sag, be subjected to greater loads than the impact load imposed by an attached component. When the angle of horizontal lifeline sag is less than 30 degrees (from horizontal), the impact force imparted to the lifeline by an attached lanyard is amplified. For example, with a sag angle of 15 degrees, the force amplification is about 2:1 and at 5 degrees sag, it is about 6:1. Depending on the angle of sag, and the line's elasticity, the strength of the horizontal lifeline and the anchorages to which it is attached should be increased a number of times over that of the lanyard. Extreme care should be taken in considering a horizontal lifeline for multiple tie-offs. The reason for this is that in multiple tie-offs to a horizontal lifeline, if one employee falls, the movement of the falling employee and the horizontal lifeline during arrest of the fall may cause other employees to fall also. Horizontal lifeline and anchorage strength should be increased for each additional employee to be tied off. For these and other reasons, the design of systems using horizontal lifelines will only be done by qualified persons. Testing of installed lifelines and anchors prior to use is recommended.

Vertical lifelines. When vertical lifelines are used, each employee will have a separate lifeline. The reason for this is that in multiple tie-offs to a single lifeline, if one employee falls, the movement of the lifeline during the arrest of the fall may pull other employees' lanyards, causing them to fall as well. Lanyards and vertical lifelines will have a minimum breaking strength of 5,000 pounds.

Anchorages

Anchorages will be designed, installed, and used under the supervision of a qualified person, as part of a complete personal fall arrest system that maintains a safety factor of at least two, i.e., capable of supporting at least twice the weight expected to be imposed upon it. Anchorages used to attach personal fall arrest systems will be independent of any anchorage being used to support or suspend platforms and will be capable of supporting at least 5,000 pounds per person attached.

One of the most important aspects of personal fall protection systems is fully planning for suitable anchorage points. Properly planned anchorages should be used if they are available. In some cases, anchorages will be installed immediately prior to use. Examples of what might be appropriate anchor points are steel members or I-beams if an acceptable strap is available for the connection (do not use a lanyard with a snap-hook clipped onto itself); large eye-bolts made of an appropriate grade steel; guardrails or railings if they have been designed for use as an anchor point; or masonry or wood members only if the attachment point is substantial and precautions have been taken to assure that bolts or other connectors will not pull through. A qualified person should be used to evaluate the suitability of these "make shift" anchorages with a focus on proper

strength. A variety of products specifically designed for use as fall protection anchorages (beam clamps, beam straps, roof anchors, etc.) are commercially available.
In instances where workers require greater vertical or horizontal mobility than can be achieved using fixed anchorages, properly designed and installed vertical or horizontal lifelines may be used.

Holes and Covers

Personal fall arrest systems, covers, or guardrail systems will be erected around holes (including skylights) that are more than 6 feet above lower levels. Covers will be able to support at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time. Covers located in roadways will be able to support twice the axle load of the largest vehicle that might cross them. To prevent accidental displacement resulting from wind, equipment, or workers' activities, all covers will be secured. All covers will be color-coded or will bear the markings "HOLE" or "COVER."

PFAS Inspections

PFASs will be inspected prior to each use for wear or damage, and other deterioration. Damaged or defective components will be removed from service. All components will be protected from cuts and abrasions while in use and during storage. PFASs and their components subject to impact loading will be immediately removed from service and not used again unless inspected and determined by a competent person to be suitable for reuse. PFASs will be used only for employee protection and not to hoist materials.

The following criteria will be utilized to maintain all equipment in good working condition:

Full body harnesses

- Inspect before each use.
- Annually, an inspection will be conducted and documented by a competent person.
- Store hanging in an enclosed cabinet to protect from damage.
- All harnesses involved in a fall will be destroyed.

Lanyards/shock absorbing lanyards

- Inspect before each use.
- Annually, an inspection will be conducted and documented by a competent person.
- Store hanging in an enclosed cabinet to protect from damage.
- All lanyards involved in a fall will be destroyed.

Snap-hooks

- Inspect before each use.
- Annually, an inspection will be conducted and documented by a competent person.

Self-retracting lanyards/lifelines

- Inspect before each use.
- Monthly, an inspection will be conducted and documented by a competent person. • Service per manufacturer specifications. (1-2 years)
- Inspect for proper function after every fall.

Tie-off adapters/anchorages

- Inspect for integrity and attachment before each use.
- Annually, an inspection will be conducted and documented by a competent person. • All tie-offs and anchorages will be destroyed after every fall

Horizontal lifelines

- Inspect before each use for structural integrity of line and anchors.
- Annually, an inspection will be completed by a competent person.

Safety Net Systems

Safety net systems will be installed no more than 30 feet below the walking/working surface with sufficient clearance to prevent contact with the surface below, and will be installed with sufficient vertical and horizontal distances as described in the OSHA Fall Protection Standard. (29 CFR 1926.502(c)).

All nets will be inspected by Site Management at least once a week for wear, damage, or deterioration. Defective nets will be removed from use and replaced with acceptable nets. All nets will be in compliance with mesh, mesh crossing, border rope, and connection specifications as described in the OSHA Fall Protection Standard (29 CFR 1926.502(c)).

When nets are used on bridges, the potential fall area from the walking/working surface will remain unobstructed.

Objects that have fallen into safety nets will be removed as soon as possible, at least before the next working shift.

Storage and Maintenance of Personal Fall Protection Equipment

Following are general requirements for the storage and maintenance of personal fall protection equipment:

- Hang equipment in a cool, dry location in a manner that holds the shape of the equipment.
- Follow manufacturer recommendations for inspections.
- Clean with a mild, non-abrasive soap and hang to dry. Do not use strong detergents.

- Do not store equipment near excessive heat, chemicals, moisture, or direct sunlight.
- Do not use in areas with exposure to fumes or corrosive materials.
- Avoid dirt or other types of buildup on equipment.
- Do not use equipment for other than its intended purpose.
- Once exposed to a fall, immediately remove equipment from service.

Protection from Falling Objects

When guardrail systems are used to prevent materials from falling from one level to another, openings will be small enough to prevent passage of potential falling objects.

Stored materials. No materials or equipment except masonry and mortar will be stored within 4 feet of working edges. Excess mortar, broken or scattered masonry units, and all other materials and debris will be kept clear of the working area by removal at regular intervals. During roofing work, materials and equipment will not be stored within 6 feet of a roof edge unless guardrails are erected at the edge, and materials piled, grouped, or stacked near a roof edge will be stable and self-supporting.

Toe-boards. When toe-boards are used as protection from falling objects, they will be erected along the edges of the overhead walking or working surface for a distance sufficient to protect persons working below. Toe-boards will be capable of withstanding a force of at least 50 pounds applied in any downward or outward direction at any point along the toe-board. Toe-boards will be a minimum of 3.5 inches tall from their top edge to the level of the walking/working surface, have no more than 0.25 inches clearance above the walking/working surface, and be solid or have openings no larger than 1 inch.

Where tools, equipment, or materials are piled higher than the top edge of a toe-board, paneling or screening will be erected from the walking/working surface or toe-board to the top of a guardrail system's top rail or mid-rail, for a distance sufficient to protect employees below.

Fall Protection Plan

Fall Protection Plans are used only when it is clearly infeasible to provide 100% fall protection using conventional fall protection systems. This product contains a sample Fall Protection Plan designed for precast/prestress concrete structures, and contains procedures for controlled access zones, safety monitoring systems, and warning line systems.
Other types of work procedures where these Plans are used are during leading edge construction work and roofing activities.

When it is infeasible or creates a greater hazard to implement fall protection systems, fall restraint systems, or PFASs, Rangeline Group will implement a Fall Protection Plan prepared by a Competent Person (29 CFR 1926.502(k)).

Acceptable reasons for determining that the use of fall protection systems is infeasible can include the following:

- The duration of exposure to the hazard while installing a fall protection system exceeds the duration of the work.
- The fall protection system unacceptably (dangerously) impedes worker mobility.

- The movements of multiple workers would result in entanglement of employee connections to the system, avoidance of which would require inordinate (dangerous) diversion of employee attention.
- The employees may not be able to escape quickly from a dangerous zone in the event of a mishap.
- The anchorage points elevated above the working surface would interfere with the work.
- The anchorage points below or on the working surface would not provide the required level of protection.

Unacceptable reasons for determining that the use of a fall protection system is infeasible are:

- Cost
- Employee resistance to the use of fall protection systems
- Continued use of current practices which were acceptable in the past
- Determination that insufficient time exists to implement a fall protection system

Accident Investigations

All incidents that result in injury to workers, as well as near misses, regardless of their nature, will be reported and investigated. Investigations will be conducted by Site Management or other competent person as soon after an incident as possible to identify the cause and means of prevention to eliminate the risk of reoccurrence.

In the event of such an incident, the Fall Protection Program (and alternative Fall Protection Plans, if in place) will be reevaluated by Site Management to determine if additional practices, procedures, or training are necessary to prevent similar future incidents.

Fall Rescue

Rangeline Group will establish procedures to ensure that employees who do fall receive prompt emergency medical attention. A fall rescue system will provide prompt (within 15 minutes) rescue; or will ensure the capability of an immediate self-rescue. A rescue plan is in place at each worksite. The procedures identify key rescue and medical personnel, equipment available for rescue, emergency communications procedures, retrieval methods, and primary first-aid requirements. The rescue plan will be prepared prior to initial startup operations at worksites.

Supervisors will ensure that each employee thoroughly understands the rescue plan and has immediate access to emergency phone numbers.

Rescue Plan

The following are general guidelines for emergency response procedures and fall rescue for each worksite:

- Before on-site work begins, inform emergency responders of any conditions at the site that may hinder a rescue effort.
- Document rescue procedures and post at the worksite/inform employees of locations.
- Post emergency responder phone numbers and addresses at the site.
- Mark the worksite with signs noting the easiest routes in and out of the site.

- Ensure that responders have quick access to rescue and retrieval equipment such as lifts and ladders.

Rescue Procedures

At the beginning of any work activity where fall protection is an issue, rescue plans must be identified and discussed with all employees in case of a fall. Site Management is responsible for developing the rescue plan(s).

Workers using fall protection equipment will have an assigned safety person (spotter) who will be within visual/verbal range to initiate rescue of the fallen worker if required.

If a person falls suspended from a fall arrest system:

1. The first worker to notice that another worker has fallen will immediately ask if he or she has been injured and determine if the person is able to self-rescue.
2. If the fallen worker is injured or does not respond, call 911, summon emergency response personnel, or call other emergency personnel in the response plan.
3. Secure the scene from unauthorized personnel.
4. Make certain that only qualified personnel attempt a technical rescue.
5. Assign personnel to meet rescuers to direct them to the accident scene.
6. Provide comfort care and check vital signs if victim is accessible; if necessary, administer CPR and attempt to stop any bleeding per standard first-aid procedures.
7. All employees involved in a fall arrest or fall will be sent for a medical evaluation to determine extent of injuries, if any.

Training

Rangeline Group will provide a training program that teaches employees who might be exposed to fall hazards how to recognize such hazards and how to minimize them. Employees will receive training as soon after employment as possible, and before they are required to work in areas where fall hazards exist. Employees will be trained in the following areas:

- Nature of fall hazards in the work area
- Requirements of the OSHA Fall Protection Standard, 29 CFR 1926, Subpart M
- Correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems
- Use and operation of controlled access zones and guardrail, personal fall arrest, safety net, warning line, and safety monitoring systems
- Role of each employee in the safety monitoring system when the system is in use
- Limitations on the use of mechanical equipment during the performance of roofing work on low-slope roofs
- Correct procedures for equipment and materials handling and storage and the erection of overhead protection
- Rangeline Group requirements for reporting incidents that cause injury to an employee
- Employee's role in fall protection plans

Retraining

Refresher training will be provided whenever:

- Changes in the workplace render previous training obsolete; *or*
- Changes in the types of fall protection systems or equipment to be used render previous training obsolete; *or*
- Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment indicate that the employee has not retained the requisite understanding or skill

Contractors

All outside contractors working in or on the premises of Rangeline Group will be required to follow the guidelines set forth in this fall protection program. Contractors in the pre-job meeting will be informed of these requirements as well as the on-site construction rules that apply.

End Of Policy

ATTACHMENT D

Excavation and Trenching Plan

Scope

This **Excavation and Trenching Plan** addresses the requirements and safe practices to ensure the safety of employees and contractors who work in or around trenching, and excavation activities performed on Rangeline Group properties. These requirements apply to all work involving excavation, digging, and trenching, grading, or ditching operations.

Policy

Rangeline Group will provide safe work areas for employees, contractors, visitors, and others who are or may be exposed to hazards in or around trenches and other excavation areas. All trenching and excavation activities will be evaluated to eliminate or minimize the potential of cave-ins, review environment contamination, and contact with underground utilities or other subsurface impediments. No digging, trenching, or excavation activities will be performed unless the requirements of federal rules for excavations (29 CFR 1926.650 to 1926.652) and employee training (29 CFR 1926.20(b)(1) and 29 CFR 1926.21(b)(1)) and this organization's safety and environmental policies are met.

Rangeline Group Management. Rangeline Group Management or their designee will ensure at each applicable excavation that a competent person will:

- Review and approve the digging, trenching, and excavation drawing and permit.
- Ensure that known underground utilities and structures have been identified and physically located and marked when applicable.
- Ensure that precautions will be taken to protect existing underground utilities and structures when applicable.
- Ensure that all responsible organizations have given their input for the proposed excavation site.
- Ensure that adequate safety control measures have been identified and implemented.
- Approve (by signature) or disapprove trenching-related permits.
- Monitor the overall effectiveness of the program through audits and annual reviews.
- Conduct atmospheric testing, other technical assistance, or equipment selections needed.
- Provide or assist with arranging site worker training, competent person training, and retraining of those who may be involved in excavations.
- Conduct periodic audits of the trenching program.
- Maintain records relating to training and audits.

Investigate and document all reported accidents and/or near-miss accidents that are directly or indirectly related to trenching.

Rangeline Group Management or their designee may designate a competent person with the authority to administer or implement one or more components of this Plan.

Competent person. The competent person must be able to demonstrate the training, experience, and knowledge of soil analysis, use of protective systems, and the requirements of this Plan and all relevant local, state, and federal regulatory requirements, including the federal rules for excavations at 29 CFR Part 1926, Subpart P.

The competent person will be able to:

- Evaluate soil conditions and select appropriate protective measures.
- Construct protective systems in accordance with the excavation regulatory requirements.
- Preplan, such as contact utilities (gas, electric) to locate underground lines; plan for traffic control, if necessary; and determine proximity to structures that could affect choice of protective systems.
- Test for low oxygen, hazardous fumes, and toxic gasses, especially when gasoline engine-driven equipment is running, or the dirt has been contaminated by leaking lines or storage tanks.
- Ensure adequate ventilation or respiratory equipment, if necessary.
- Provide safe access into and out of the excavation.
- Provide appropriate protection if water accumulation is a problem.
- Inspect the site daily at the start of each shift, following a rainstorm, or after any other hazard-increasing event.
- Keep excavations open the minimum amount of time needed to complete operations.

The competent person must be able to detect:

- Conditions that could result in cave-ins
- Failures in protective systems
- Hazardous atmospheres
- Other hazards, including those associated with confined spaces.

The competent person will have the authority to take prompt corrective measures to eliminate existing and predictable hazards and stop work when required.

Supervisor. A supervisor may be classified as a competent person and can be in charge of each excavation. The supervisor will:

- Successfully complete training for classification as a competent person for trenching operations.
  Implement the Excavation and Trenching Plan for work areas under their control.
- Act as the competent person for excavation sites under his or her control.
- Ensure that the equipment necessary to complete an excavation safely is available and in good condition.
- Conduct soil tests to determine soil type.
- Ensure that all underground utility installations are located and marked before excavation begins.

- Receive written approval from the relevant utilities and landowners for digging, trenching, or excavating operations.
- Ensure that underground installations are protected, supported, or removed while the excavation is open. Notify the appropriate agencies when utility systems are exposed during the excavation process to allow the location and condition of the utility to be evaluated.
- Ensure worker protection and compliance with other applicable safety plans or programs.
- Ensure protection of the public with appropriate barricades.
- Determine what protective systems will be used to prevent cave-ins.
- Conduct daily inspections of excavations, the adjacent areas, and protective systems for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions.
- Immediately notify Name if a utility system is damaged during the trenching or excavation process.

Employee. Each employee engaged in trenching or other excavation-related activities must:

- Complete training, and request assistance when uncertain about any activity he or she must perform.
- Use appropriate personal protective equipment (PPE).
- Adhere to the requirements of the Plan.
- Report all workplace injuries and unsafe conditions to the supervisor or competent person.

Plan Review and Update

This Plan will be reviewed periodically by Rangeline Group Management or their designee to ensure the program's effectiveness and will be updated as determined by the review. This Plan will also be updated whenever:

- New types of protective systems or equipment are introduced to an excavation site.
- Evaluations of workplace hazards, injuries, and near misses demonstrate that the current plan is outdated or not effective.
  When regulatory or national consensus standards adopted as part of the Plan change.

DEFINITIONS

Competent person means someone who is capable of identifying existing and predictable hazards in the surroundings, or working conditions that are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt, corrective measures to eliminate them.

Confined space means a space that is large enough and so configured that an employee can bodily enter and perform work and has limited or restricted means of entry or exit and is not designed for continuous employee occupancy.

Excavation means any man-made cut, cavity, trench, or depression in the earth's surface formed by earth removal.

Hazardous atmosphere means an atmosphere that is explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen-deficient, toxic, or otherwise harmful that may cause death, illness, or injury to persons exposed to it.

Protective system means a method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.

Registered professional engineer means a person who is registered as a professional engineer in the state where the work is to be performed. However, a professional engineer who is registered in any state is deemed to be a "registered professional engineer" within the meaning of federal rules when approving designs for "manufactured protective systems" or "tabulated data" to be used in interstate commerce.

Shield (trench box) means a structure that is able to withstand the forces imposed on it by a cave-in and thereby protects employees within the structures. Shields can be permanent structures or can be designed to be portable and moved along as work progresses. Additionally, shields can be either pre-manufactured or job-built in accordance with the OSHA regulations at 29 CFR 1926.652(c)(3) or 29 CFR 1926.652(c)(4). Shields used in trenches are usually referred to as trench boxes or trench shields. Trench boxes or shields protect employees from cave-ins that might occur by providing sheltered space where employees may work. They are not designed to prevent cave-ins. A typical shield consists of two steel plates separated by structural members to form a box open at the top, bottom, and both ends. The box is lowered into the trench so that the steel plates face the trench's sidewalls. Employees then climb into the protected area defined by the steel plates. As the work progresses, the box is dragged along the bottom of the trench by a chain or cable suspended from a backhoe above the ground.
of an excavation and is designed to prevent cave-ins.

Sloping means a method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavations so as to prevent cave ins. The angle of incline required to prevent a cave-in varies with differences in such factors as the soil type, environment conditions of exposure, and application of exposure and application of surcharge loads.

Support system means structures such as underpinning, bracing, and shoring that provide support to an adjacent structure or underground installation or to the sides of an excavation or trench.

Surface encumbrance means anything that creates a hazardous surcharge load on the sides of a trench or excavation, such as equipment, building materials, vehicles, soil, and sources of vibration, foundations, streams, water tables, or geological anomalies, which could cause it to cave in and injure or kill those inside.

Trench means a narrow underground excavation that is deeper than it is wide, and no wider than 15 feet (ft) (4.5 meters (m)). In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 ft (4.6 m). If forms or other structures are

installed or constructed in an excavation so as to reduce the dimension measured from the forms or structure to the side of the excavation to 15 ft (4.6
m) or less (measured at the bottom of the excavation), the excavation is also considered to be a trench.

EXCAVATION AND TRENCHING SAFETY PROGRAM

Hazard Assessment

Excavation and trenching work present serious hazards to all workers involved. Cave-ins pose the greatest risk and are much more likely than other excavation-related accidents to result in worker fatalities. Other potential hazards include falls, falling loads, hazardous atmospheres, and incidents involving mobile equipment.

Before work begins on an excavation or trench, the competent person(s) will evaluate the specific hazardous conditions at the worksite through jobsite studies, observations, test borings for soil type or conditions, and consultations with local officials and utility companies. The following factors will be considered to determine the hazards associated with specific site conditions:

- Traffic
- Proximity and physical conditions of nearby structures • Soil
- Surface water and groundwater
- Location of the water table
- Overhead and underground utilities
- Weather

Soil Classification

Before any work begins in an excavation or trench, the soil classification will be determined by the competent person and in accordance with the attached (29 CFR 1926 Subpart P, Appendix A).

The supervisor or other competent person will determine the soil type using the visual test and at least two of the OSHA and industry recognized manual tests listed below.

Visual Test

The entire excavation site, including the soil adjacent to the site, will be observed. During the visual test, the designated supervisor will check for crack-line openings along the failure zone that indicate tension cracks and observe the open side of the excavation for indications of layered geologic structuring. Other conditions to look for are signs of bulging, boiling, or sloughing, as well as signs of surface water seeping from the side of the excavation or from the water table.

Manual Tests

Thumb penetration test. When the thumb is pressed firmly into the soil and penetrates no further than the length of the nail, it is probably Type B soil. If the thumb penetrates the full length of the thumb, it is Type C. This is the least accurate of the manual test methods.

Dry strength test. If a sample of dry soil is crumbled freely or with moderate pressure into individual grains, it is considered granular, or Type C. Dry soil that falls into clumps that subsequently break into smaller clumps is probably clay in combination with gravel, sand, or silt (Type B).

Plasticity or wet thread test. A moist sample of the soil is molded into a ball and then rolled into a thin thread approximately 1/8 inch in diameter by 2 inches in length. If the soil sample does not break when held by one end, it may be considered Type B. If the soil sample does break, it is considered Type C.

Soil compression strength test. A pocket penetrometer, shear vane, or torvane may also be used to determine the unconfined compression strength of soils.

Surface Encumbrances

All surface encumbrances that are located so as to create a hazard to employees will be removed or supported, as necessary, to safeguard employees.

Underground Installations

The estimated location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, will be determined before opening an excavation.

Utility companies or owners will be contacted within established or customary local response times, advised of the proposed work, and asked to establish the location of the utility underground installations before the start of actual excavation. When utility companies or owners cannot respond to a request to locate underground utility installations within 48 hours or cannot establish the exact location of these installations, the excavation work may proceed provided that such work is done with caution, and detection equipment or other acceptable means to locate utility installations are used.

When operations approach the location of underground utilities, excavation will progress with caution until the exact location of the utility is determined. While the excavation is open, underground installations will be protected, supported, or removed as necessary to safeguard employees.

Safety Procedures

General Requirements

If evidence of a situation that could result in possible cave-ins, slides, failure of protective systems, hazardous atmospheres, or other hazardous condition is identified, exposed workers will be removed from the hazard and all work in the excavation or trench stopped until all necessary safety precautions have been implemented.

Competent person. A competent person will oversee work performed at any excavation to ensure compliance with this Plan.

Worker training. Employees who work in or around excavations will be provided training according to their work activities.

Protective systems. The excavation or trench must either be sloped or supported as required to comply with OSHA worker protection requirements.

Personal protective equipment (PPE). Employees must use PPE as required by their job task.
Electrical installations. Work conducted on or around electrical utilization systems must be performed in accordance with the procedures from the **Electrical Safety Plan**.

Lockout/tagout. Work that may impact existing utilities that need to be locked and tagged out may be performed by following procedures from the **Lockout/Tagout Plan**.

Welding. Work requiring welding, cutting, or brazing could require a Hot Work Permit before the start of any work of this nature in or around the trench, ditch, or excavated site.

Safe Access and Exit

Workers will be provided with safe access into and exiting from trenches or excavations that are more than 4 ft deep.

Access. The means of access and the design specifications for such access will be determined by the competent person and in accordance with the following guidelines:

- Ladders used as access to a trench or excavation will extend from the bottom of the excavation to not less than 3 ft (0.9 m) above the surface.
- Ramps used solely for personnel access will be a minimum width of 4 ft (1.2 m) and provided with standard guardrails.
- Ramps used for equipment access will be a minimum width of 12 ft (3.6 m). Curbs of not less than 8-in x 8-in (20.3-cm x 20.3-cm) timbers, or equivalent protection, will be provided. Equipment ramps will be designed and constructed in accordance with accepted engineering practice.

Exit route. The means of exit and the design specifications for such exit will be determined by the competent person and in accordance with the following guidelines:

- A stairway, ladder, ramp, personnel hoist, or other safe means of exit will be located in trench excavations that are 4 ft (1.2 m) or more in depth.
- Exit route(s) will be placed within 25 lateral ft of workers.
- When two or more components form a ramp or runway, they must be connected to prevent displacement and be of uniform thickness.

- Cleats or other means of connecting runway components must be attached in a way that would not cause tripping (e.g., to the bottom of the structure).

- Structural ramps used in place of steps must have a nonslip surface.

- Earthen ramps may be used as a means of exit only if a worker can walk them in an upright position and only if they have been evaluated by a competent person.

Perimeter Protection

Protection will be provided to prevent personnel, vehicles, and equipment from falling into excavations.

Fall Protection

All excavations, wells, pits, and shafts will be barricaded or covered.

Excavations will be backfilled as soon as possible. Upon completion of exploration and similar operations, test pits and temporary wells will be backfilled immediately.

Walkways or bridges will be provided with standard guardrails where people or equipment are required or permitted to cross over excavations.

Falling Loads

Workers and other personnel must be prevented from passing or standing underneath loads handled by lifting or digging equipment. They must stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped to provide adequate protection for the operator during loading and unloading operations.

Falling Material

Employees will not be permitted to work on the faces of sloped or benched excavations at levels above other employees except when employees at lower levels are adequately protected from the hazard of falling material or equipment.

Placement of excavated material. Excavated material will be placed at least 2 ft (0.6 m) from the edge of an excavation or will be retained by devices that are sufficient to prevent the materials from falling into the excavation. In any case, material will be placed at a distance to prevent excessive loading on the face of the excavation. Materials such as boulders or stumps that may slide or roll into the excavation will be removed or made safe.

Hazardous Atmospheres

Workers will not be permitted to work in or near hazardous atmospheres unless required testing and monitoring, worker precautions, and rescue services are in place. Work conducted in enclosed areas where hazardous atmospheres or gases could accumulate (e.g., landfills, manure pits, gas distribution lines, or hazardous materials storage locations) must be done in accordance with the **Confined Spaces Plan**.

Types of hazardous atmospheres. Such atmospheres include those with the following:

- Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent
- A combustible gas concentration 10 percent or greater of the lower explosive limit
- Concentrations of hazardous substances that exceed those specified in the threshold limit values (TLVs) for airborne contaminants established by the American Conference of Governmental Industrial Hygienists (ACGIH)

Atmospheric tests. Air quality tests will be taken before employees enter excavations more than 4 ft deep when a hazardous atmosphere exists or could be expected to exist. If there is any possibility that the trench or excavation could contain a hazardous atmosphere, the supervisor or other competent person will ensure that:

- Atmospheric testing is conducted before worker entry and continuously during work.
- Where oxygen deficiency (atmospheres containing less than 19.5 percent oxygen) or a hazardous atmosphere exists or could reasonably be expected to exist, the atmospheres in the excavation will be tested before employees enter excavations greater than 4 ft (1.2 m) deep.
- Tests will be conducted as often as necessary to ensure the quality and quantity of the atmosphere, including checks for flammable gases and oxygen deficiency.
- A log of all test results will be maintained at the worksite.

Worker precautions. Suitable precautions will be taken as necessary to protect workers in areas where hazardous atmospheres exist or potentially exist. These precautions will include the following:

- Engineering controls such as ventilation
- Respiratory protection in accordance applicable laws and company policies
- Full body harnesses and lifelines

Rescue equipment. Where hazardous atmospheres exist or may reasonably be expected to exist, emergency rescue equipment will be on the worksite and readily accessible to rescue personnel.

Daily inspections. Daily inspections for hazardous atmospheres must be conducted by a competent person.

Walkways and Guardrails over Excavations

Walkways will be provided where workers or equipment are allowed to cross over excavations. Guardrails will be provided on walkways used by the general public regardless of the height above the excavation. Guardrails will be provided on walkways used only by on-site personnel if the walkway is 4 ft or more above lower levels. If workers pass below a walkway, guardrails and toe-boards will be provided.

Confined Spaces

Employees entering excavations classified as confined spaces or that otherwise present the potential for emergency rescue, such as bell-bottom pier holes or similar deep and confined footing, will wear rescue equipment and maintain communication with the confined space attendant. See the **Confined Space Plan** for more information about safety procedures related to confined spaces.

Water Accumulation

Control measures. Employees will not work in excavations in which there is accumulated water or in which water is accumulating unless the water hazards posed by accumulation is controlled. Freezing, pumping, draining, and similar control measures will be planned and directed by a registered engineer. Consideration will be given to the existing moisture balances in surrounding soils and the effects on foundations and structures if the soil is disturbed.

Drainage. Diversion ditches, dikes, or other means will be used to prevent surface water entering an excavation and to provide good drainage of the area adjacent to the excavation.

Water control equipment. When continuous operation of groundwater control equipment is necessary, an emergency power source will be provided. Water control equipment and operations will be monitored by a competent person to ensure proper operation.

Mobile Equipment and Motor Vehicle Traffic Precautions

Traffic around the excavation or trench site must be controlled and barricades, signs, and/or flag persons used as needed to control both vehicular and pedestrian traffic.

High visibility PPE.

Workers exposed to public vehicular traffic will be provided with and will wear warning vests or other suitable garments marked with or made of reflective or high-visibility material.

Barricades.

When vehicles or mobile equipment are used or allowed adjacent to an excavation, substantial stop logs or barricades will be installed. The use of a ground guide is recommended.

Loading/unloading vehicles.

Workers will stand away from vehicles being loaded or unloaded to avoid being struck by spillage or falling materials.

Hoisting operations.

Excavating or hoisting equipment will not be allowed to raise, lower, or swing loads over or adjacent to personnel in the excavation without substantial overhead protection. Personnel will maintain a safe distance from a hoisting operation until the load has been placed.

Warning system.

When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have a clear and direct view of the edge of the excavation, a warning system will be utilized, such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

Stability of Adjacent Structures

Protective systems.

If the stability of adjoining buildings or walls is endangered by excavations, shoring, bracing, or underpinning will be provided to ensure the stability of the structure and to protect employees.

Support systems.

Sidewalks, pavements, and related structures will not be undermined unless a support system is provided to protect employees and the sidewalk, pavement, or related structure.

Excavation below the level of adjacent structures.

Excavations below the level of the base of footing of any foundation or retaining wall will not be permitted unless:

- A support system, such as underpinning, is provided to ensure the stability of the structure and to protect employees involved in the excavation work or in the vicinity thereof; *or*
- The excavation is in stable rock; *or*
- A registered professional engineer has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation or determines that the excavation will not pose a hazard to employees.

SITE INSPECTIONS

When personnel will be in or around an excavation, a competent person will inspect the excavation, the adjacent areas, and protective systems daily:

- Before each work shift

- Periodically throughout the work shifts as dictated by the work being done
- After every rainstorm
- After other events that could increase hazards (e.g., snowstorm, windstorm, thaw, earthquake)
- When fissures, tension cracks, sloughing, undercutting, water seepage, bulging at the bottom, or other similar conditions occur
- When there is a change in size, location, or placement of the spoil pile
- Where there is any indication of change in adjacent structures

The competent person will use the attached *Excavation Site Inspection Checklist* or equivalent form when conducting inspections. All completed inspection forms will be maintained at the worksite during construction and stored at Location after excavation work is completed.

PROTECTIVE SYSTEMS

General Requirements

Excavations less than 5 ft deep. For excavations less than 5 ft (1.5 m) deep, the competent person will examine the excavation for potential cave-in hazards and determine if a protective system is needed.

Excavations 5 ft deep or deeper. All workers in an excavation or trench 5 ft deep or deeper will be protected from cave-ins by an adequate protective system. Protective systems will have the capacity to resist without failure all loads that are intended or could reasonably be expected to be applied or transmitted to the system.

Excavations more than 20 ft deep. Protective systems for all excavations more than 20 ft (6.0 m) deep will be designed and approved by a **Registered Professional Engineer**.

Protective System Selection

The competent person will select the method of protection that is most suitable for the particular excavation site, taking into consideration soil type and surrounding structures. See the ***Soil Classification*** subsection of this Plan for more information.

Types of protective systems. Excavations in which employees could potentially be exposed to cave-ins will be protected by:

1. Sloping or benching the sides of the excavation; *or*
2. Supporting or shoring the sides of the excavation; *or*
3. Placing a shield between the side of the excavation and the work area.

Exempt Excavations

The following excavations do not require protective systems:

- Excavations are less than 5 ft (1.52 m) deep and examination of the ground by a competent person provides no indication of a potential cave-in.

A fixed means to safely exit exempt excavations will be provided for workers.

Sloping and Benching Systems

The competent person or supervisor will select and construct slopes and configurations of sloping and benching systems from one of four options.

Option 1

Slope the walls of the excavation at an angle so that soil does not roll into the excavation. The degree of the sloping angle needed depends on the stability of the soil at the site. The maximum allowable slopes for excavations less than 20 ft deep based on soil type and angle to the horizontal are as follows:

Soil Type	Height/Depth Ratio	Slope Angle
B	1:1 or less	45
C	11/2:1	34

Examples:

In Type B soil, a 10-ft deep trench must be sloped to a 45-degree angle. The total distance across such a trench would be 20 ft plus the width of the trench.

In Type C soil, the 10-ft deep trench would be sloped at a 34-degree angle. The total width of the trench would be 15 ft in both directions, for a total of 30 ft across plus the width of the trench. Sloping will be greater if the areas near the excavation are subject to heavy loads (e.g., soil piles and vehicles).

Excavation in an Unclassified Soil

If the soil is not classified, the excavation must be sloped according to the requirements for Type C soil.

Option 2

Determine maximum slope with site-specific variables. Determine the maximum slope on the basis of site-specific variables.

Option 3

Use tabulated data to determine the slope. Use tabulated data, such as tables and charts approved by a registered professional engineer, to design the excavation. This data will be in writing and include sufficient explanatory information to enable the user to make a selection, including the criteria for determining the selection and limits of the data. A copy of the information will be kept at the worksite during construction of the protective system.

Option 4

Use a registered professional engineer. Use a registered professional engineer to design the sloping or benching system based on professional judgment.

Benching Systems

Benching is not permitted in Type C soil.

Benching may be one of two types:

- Single level or step not exceeding 4 ft high; *or*
- Multiple levels or steps, each not exceeding 4 ft high.

Benching may be used in conjunction with simple sloping. Benches must be below the maximum allowable slope for that soil type. For example, a 10-ft-deep trench in Type B soil must be benched back 10 ft in each direction with the maximum 45-degree angle.

Worker Safeguards

Workers must not work on the faces of sloped or benched excavations at levels above other employees except when employees at the lower levels are adequately protected from the hazard of falling, rolling, or sliding material or equipment.

Shoring and Shielding Systems

Option 1

Design the shoring system using the soil classification, timber shoring, and aluminum shoring of the OSHA excavation rule or applicable state regulations. Designs for timber shoring in trenches will be determined according to the conditions and requirements of Appendices A and C of the OSHA excavation rule. Designs for aluminum hydraulic shoring must be according to the manufacturer's tabulated data, but if such data cannot be used, designs must follow the requirements of Appendix D of the rule. The system must be approved by a registered professional engineer.

Option 2

Design using the system manufacturer's tabulated data. Design of support systems, shield systems, or other protective systems that are drawn from manufacturer's tabulated data will be in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer, and the data will be in written form and kept at the jobsite during construction of the protective system. The system must be approved by a registered professional engineer.

Option 3

Design using other tabulated data. Designs of protective systems will be selected from and be in accordance with tabulated data, such as tables and charts approved by a registered professional engineer. This data must be in writing and must include sufficient explanatory information to enable the user to make a selection, including the criteria for determining the selection and limits of the data. A copy of the information must be kept at the worksite during construction of the protective system. Upon completion of the system, the data may be stored away from the jobsite but must be made available to regulatory staff on request.

Option 4

Use a registered professional engineer to design the shoring and shield protective systems. Designs must be in the form of a written plan kept at the jobsite during construction of the protective system.

Shoring

Shoring is used when the location or depth of the trench makes sloping back to the maximum allowable slope impractical. Shoring will be used for unstable soil or depths greater than 5 ft (1.5 m) unless benching, sloping, or other acceptable plan is accepted by the competent person.

Installation and Removal of Shoring or Support Systems

Installation of a shoring or support system will be closely coordinated with the excavation of trenches. All shoring will be installed from the top down and removed from the bottom up.

Installation procedures. Members of shoring or support systems will be securely connected together to prevent sliding, falling, kick-outs, or other predictable failure.

Support systems will be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system. Individual members of support systems will not be subjected to loads exceeding those that those members were designed to withstand.

Removal procedures. Before temporary removal of individual members begins, additional precautions will be taken to ensure the safety of employees, such as installing other structural members to carry the loads imposed on the support system.

Removal will begin at, and progress from, the bottom of the excavation. Members will be released slowly so as to note any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation.

Backfilling procedures. Backfilling will progress together with the removal of support systems from excavations.

Excavation of material to a level no greater than 2 ft (0.6 m) below the bottom of the members of a support system will be permitted, but only if the system is designed to resist the forces calculated for the full depth of the trench and there are no indications while the trench is open of a possible loss of soil from behind or below the bottom of the support system.

Shields

A trench shield may be used as long as the protection it provides is equal to or greater than the protection that would be provided by the appropriate shoring system. The competent person or supervisor must follow manufacturer's instructions for premade boxes and shields once a design has been chosen.

Shields may be used in conjunction with sloping or benching.

Load requirements. Shield systems will not be subjected to loads exceeding those that the system was designed to withstand.

Installation requirements. Shields will be installed in a manner to restrict lateral or other hazardous movement of the shield in the event of the application of sudden lateral loads.

Worker protections. Workers will be protected from the hazard of cave-ins when entering or exiting the areas protected by shields. Workers will not be allowed in shields when shields are being installed, removed, or moved vertically.

Excavations below the depth of the shield. Excavations of earth material to a level not greater than 2 ft (.6 m) below the bottom of a shield will be permitted, but only if the shield is designed to resist the forces calculated for the full depth of the trench and there are no indications while the trench is open of a possible loss of soil from behind or below the bottom of the shield.

Protective System Materials and Equipment

Maintenance of Materials and Equipment

Materials and equipment used for protective systems will be free from damage or defects that might impair their proper function. Manufactured materials and equipment used for protective systems will be used and maintained in a manner that is consistent with the recommendations of the manufacturer and in a manner that will prevent employee exposure to hazards.

Damaged Materials and Equipment

When material or equipment that is used for protective systems is damaged, a competent person will examine the material or equipment and evaluate its suitability for continued use. If the competent person cannot ensure that the material or equipment is able to support the intended loads or is otherwise suitable for safe use, such material or equipment will be removed from

service and will be evaluated and approved by a registered professional engineer before being returned to service.

EMERGENCY RESCUE OPERATIONS

In the event of any emergency situation requiring rescue from an excavation, workers will not attempt to enter an unprotected excavation or trench to perform rescue. Local emergency services will be notified using the standard reporting system.

Rescue operations that can be performed safely from outside the excavation, such as hoisting a harnessed victim, will be carried out. Other personnel in the excavation will exit immediately and may provide assistance only when their own safety is ensured.

CONTRACTORS

All contractors and contractor employees must have their own excavation and trenching safety policies that are in compliance with federal and any applicable state and local regulations. They must also comply with the requirements of this Plan and any additional requirements stipulated by Rangeline Group Management or their designee, competent person, or the *Contractor Health and Safety Agreement*.

TRAINING

All employees, including contractors, involved in trenching or excavation work must be trained in the requirements of this Plan or applicable OSHA laws and requirements before any trenching- or excavation-related activities begin.

Supervisor Training

All supervisors of trenching and excavation activities must satisfy OSHA requirements for a competent person. Such supervisors must attend competent person training conducted by a trainer approved by the plan administrator or designee.

Employee Training

Personnel who perform work in trenches or excavations must comply with the requirements of this Plan and receive appropriate training that will include:

- Safe work practices during work in excavations
- The use of personal protective equipment (PPE) that will typically be required during work in excavations
- Procedures to be followed if a hazardous atmosphere exists or could reasonably be expected to develop during work in an excavation
- Emergency and non-entry rescue methods and procedures for calling rescue services

Refresher Training

Refresher training will be performed whenever worksite inspections conducted by the supervisor or Rangeline Group Management, or their designee indicate that an employee or contractor does not have the necessary knowledge or skills to safely work in or around excavations.

RECORDKEEPING

The competent person or supervisor will ensure that the following records and documents are kept for each excavation or trench project in a place accessible for inspection by authorized personnel and regulatory agency staff:

- The credentials of the competent person(s)
- Soil classification methodology and results of tests
- Methodology and background information used to determine which protective systems are required and the type of systems used
- Records of the employee training program, including dates of training and attendee lists
- Safety program enforcement activities
- Worksite inspection reports or logs
- The aspects of the protective systems that have been designed or approved by a registered professional engineer, including the name of such individual or, if a firm, the firm's name, the name of the engineer of record that approved the work for the firm, and the registration number
- Where applicable, evidence that the registered professional engineer of record is in fact working within a discipline applicable to the excavation work
- Accident investigation and near-miss incident reports
- Copies of related safety and health plans
- Injury and illness records

Excavation/Trench Daily Inspection Log

Yes, No, N/A	Excavation/Trench Safety Procedures	Deficiencies/Corrections
Y, N, N/A	Safe access provided and for workers to enter.	
Y, N, N/A	Competent person has authority to remove workers from the excavation/trench immediately.	
Y, N, N/A	Surface encumbrances supported or removed.	
Y, N, N/A	A means of exit is provided within 25 ft of each person in the excavation/trench.	
Y, N, N/A	Workers protected from loose rock or soil.	
Y, N, N/A	Classified as permit-required confined space.	
Y, N, N/A	If a permit-required confined space, reviewed the *Confined Space Entry Permit*.	
Y, N, N/A	Surrounding area has been properly protected and barricaded.	
Y, N, N/A	Spoils, materials, and equipment set back a minimum of 2 ft from edge of excavation.	
Y, N, N/A	Barriers provided at all remote excavations, wells, pits, shafts, etc.	
Y, N, N/A	Guardrails on walkways and bridges over excavations 6 ft deep or more.	
Y, N, N/A	Warning vests or other highly visible PPE provided and worn by all workers exposed to vehicular traffic.	
Y, N, N/A	Workers prohibited from working or walking under suspended loads.	

Y, N, N/A	Corrective measures taken to eliminate existing or anticipated hazards identified in previous inspections, accident investigations, hazard analysis, or enforcement actions.	
Y, N, N/A	Warning system established and used when mobile equipment is operating near edge of excavation.	

Y, N, N/A	Workers received daily briefing on special requirements and hazards.	
Yes, No, N/A	**Protective System(s)**	**Deficiencies/Corrections**
Y, N, N/A	Inspected by competent person daily, before start of work.	
Y, N, N/A	Excavation/trench properly sloped and/or shored.	
Y, N, N/A	Shielding properly placed and in good condition	
Y, N, N/A.	Surface encumbrances supported or removed.	
Y, N, N/A	Workers prohibited from working on faces of sloped or benched excavations above other workers.	
Y, N, N/A	Foundations, structures, and appurtenances supported or underpinned.	
Y, N, N/A	Shoring and/or shielding complies with the manufacturer's instructions or engineering designs.	
Y, N, N/A	Checked for evidence of failure (e.g., soil distress, structural member damage, soil fissures).	
Yes, No, N/A	**Utilities(s)**	**Deficiencies/Corrections**

Y, N, N/A	Utility companies contacted and/or utilities located. One call made at a minimum of 48 hours prior to excavating activities	
Y, N, N/A	Exact location of utilities marked when near excavation.	
Y, N, N/A	Underground installations protected, supported, or removed when excavation is open.	
Yes, No, N/A	**Wet Conditions**	**Deficiencies/Corrections**
Y, N, N/A	Precautions taken to protect workers from accumulation of water.	
Y, N, N/A	Water removal equipment monitored by competent person.	
Y, N, N/A	Surface water controlled or diverted.	
Y, N, N/A	Inspection made after each rainstorm.	

Project: _____

Date of Inspection: _____

Competent Person:_____

Weather: _____ Soil

Type: _____

Depth: _____

Length: _____

Width: _____

Protective System(s):

_____

_____

ATTACHMENT E

Scaffolding Safety Plan

Policy Statement

Rangeline Group will ensure that the use of all scaffolds at all work sites comply with OSHA requirements and that all proper protective measures are applied. All scaffolds will be properly selected, erected, and maintained to protect employees from the potential

NOTE : Rangeline Group does not erect or dismantle scaffolding. All scaffolding must be built by a qualified 3rd party. Rangeline Group Employees shall not erect or dismantle scaffolding.

Authority and Scope

Authority: 29 CFR 1926.450, 1926.451, and 1926.454

Scope: This Plan applies to the use of supported scaffolds on any Rangeline Group work sites.

Program Administration

When applicable, Rangeline Group will designate someone as the administrator of the scaffold safety program. His or her duties will be:

- Identify work areas, processes, or tasks where scaffolds are used.
- Designate Rangeline Group employees who will be recognized as competent persons.
- Evaluate scaffold installations and hazards.
- Select appropriate scaffold systems.
- Monitor scaffold erection and use to ensure that scaffolds are used properly.
- Arrange for and/or conduct scaffold safety training.
- Evaluate the scaffold safety program and update the written program as needed.

Supervisors

Work site supervisors are responsible for ensuring that scaffolds used in their particular areas are properly selected, erected, and used. In addition to being knowledgeable about the program requirements for their own protection, supervisors will also ensure that the program is understood and followed by the employees under their charge. Supervisors will:

- Ensure that employees under their supervision (including new hires) have received appropriate training
- Ensure the availability of appropriate and compatible scaffold equipment
- Be aware of tasks requiring the use of scaffolds
- Enforce the proper use of scaffolds
- Ensure that scaffolds are properly selected, erected, maintained, and inspected • Monitor continually work areas and operations where scaffolds are used to identify hazards

- Coordinate on how to address scaffold hazards or other concerns as they arise.

Safety Department. The Safety Department will develop and update training programs and maintain a schedule of training for all employees who may work from scaffolds.

Competent Person. The competent person is capable of identifying existing and predictable hazards associated with scaffolds and has authority to take prompt corrective measures to eliminate them. Specific responsibilities include:

- Determine the proper type of scaffold for the work to be performed and site limitations.
- Inspect scaffolds for visible defects before each shift and after each occurrence that could affect a scaffold's integrity (i.e., being struck by a crane)
- Supervise the erection, dismantling, alteration, or moving of scaffolds.
- Determine the feasibility and safety of providing fall protection for employees erecting or dismantling supported scaffolds.

Employees. Employees who work on scaffolds will:

- Ensure that all fall hazards are protected before working on a scaffold.
- Ensure that the scaffold has been inspected before using the scaffold.
- Inform the supervisor or Name of any hazards that they feel are not adequately addressed in the workplace and of any other concerns regarding the program.
- Care for and maintain scaffold equipment as instructed.

Plan Review and Update

Any changes to the Scaffold Safety Program will be reviewed by a qualified person as the job progresses to determine additional practices, procedures, or training needs necessary to prevent injuries. Affected employees will be notified of all procedure changes, and trained if necessary. A copy of this plan, and any additional alternative scaffold plans, will be maintained at the work site.

Definitions

Competent person--someone who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate such hazards or conditions.

Mobile scaffold--a powered or un-powered, portable, caster or wheel-mounted supported scaffold.

Outrigger--the structural member of a supported scaffold used to increase the base width of a scaffold in order to provide support for and increased stability of the scaffold.

Platform--a work surface elevated above lower levels. Platforms can be constructed using individual wood planks, fabricated planks, fabricated decks, and fabricated platforms.

Qualified--someone who, by possession of a recognized degree, certificate, or professional standing, or who, by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.

Scaffold--any temporary elevated platform (supported or suspended) and its supporting structure (including points of anchorage), used for supporting employees or materials or both.

Stair tower (Scaffold stairway/tower)--a tower comprised of scaffold components and which contains internal stairway units and rest platforms. These towers are used to provide access to scaffold platforms and other elevated points such as floors and roofs.

Supported scaffold--one or more platforms supported by outrigger beams, brackets, poles, legs, uprights, posts, frames, or similar rigid support.

Tube and coupler scaffold--a supported or suspended scaffold consisting of a platform(s) supported by tubing, erected with coupling devices connecting uprights, braces, bearers, and runners.

General Requirements for Scaffolds

Scaffolds will be erected, altered, and used in accordance with the manufacturer's requirements and applicable OSHA regulations (29 CFR 1926, Subpart L). A competent person (Name or designated representative) will supervise the erection, alteration, and dismantling of scaffolds and inspect the scaffold prior to use each day. Only personnel who have been trained in the proper use of scaffolds and the potential hazards of working on and around scaffolds will be permitted to work on them.

The following requirements apply to all scaffolding used on any Rangeline Group work site.

Scaffold Design

Scaffolds will be designed by a qualified person and be constructed and loaded in accordance with that design.

Scaffolds over 125 feet (38.0 m) in height above their base plates will be designed by a registered professional engineer and will be constructed and loaded in accordance with such design.

Base Section

Supported scaffolds will be built and maintained on a foundation that is level and stable. Footings will be capable of supporting four times the intended load without settling or displacement. Unstable objects may not be used to support scaffolds or platforms. To assure stability, supported scaffolds will be set on base plates and mud sills or other adequate firm foundation.

Support Structure

To control the risk of a scaffold falling or collapsing, Rangeline Group will ensure that scaffolds are assembled within OSHA standards relating to strength and structural integrity (see 29 CFR 1926.451).

Bracing

Frames and panels will be connected by cross, horizontal, or diagonal braces, alone or in combination, which secure vertical members together laterally.

Pinning

Frames and panels will be joined together vertically by coupling or stacking pins or equivalent means.

Components

Scaffold components manufactured by different manufacturers will not be intermixed and scaffold components made of dissimilar metals will not be used together.

Loading

Scaffolds will not be overloaded beyond their maximum capacity.

Safe Access

Employees will be able to safely access any level of a scaffold. Climbing cross-braces as a means of access is forbidden.

Ladders.

Portable, hook-on, and attachable ladders will be positioned so as not to tip the scaffold. Hook-on and attachable ladders will be specifically designed for use with the type of scaffold on which they are used. Specific access requirements are described below. Hook-on and attachable ladder rungs will be positioned so that their bottom rung is not more than 24 inches above the scaffold supporting level and have rest platforms provided at a maximum of 35-foot vertical intervals. Stairway-type ladders will be positioned so that their bottom step is not more than 24 inches above the scaffold supporting level and steps and rungs of ladders and stairway-type ladders will be kept free of ice, snow, mud, and debris. Built-in scaffold access frames will be specifically designed and constructed for use as ladder rungs and have rest platforms provided at a maximum of 35-foot vertical intervals.

Stair towers.

Stair towers will have a stair rail consisting of a top-rail and a mid-rail on each side of the stairway; ends of stair rails and handrails constructed so that they do not constitute a projection hazard; and guardrails meeting OSHA requirements on the open sides and ends of each landing.

Ramps and walkways.

Ramps and walkways 6 feet or more above lower levels will have guardrails that comply with 1926 Subpart M-Fall Protection. No ramp or walkway will incline more than 1:3 (1 vertical to 3 horizontal, or 20 degrees above the horizontal). If a ramp or walkway has a slope of more than 1:8, it will have cleats securely fastened to the planks not more than 14 inches apart, to provide footing.

Access during erection and dismantling will be maintained. Rangeline Group will assure safe access for employees erecting or dismantling supported scaffolds.

The competent person Name is responsible for determining the safety and feasibility of installing and using safe means of access, based on site conditions and the type of scaffold involved.

Vertical Restraint

When a supported scaffold reaches a height that is more than four times its minimum base dimension (4:1), it will be restrained by guys, ties, or braces to prevent it from tipping. Guys, ties, and braces will be installed according to the scaffold manufacturer's recommendations or at the closest horizontal member to the 4:1 height ratio and be repeated every 20 vertical feet for narrow scaffolds (3 feet or less in width), and every 26 vertical feet for scaffolds greater than 3 feet in width. Similar restraints will be installed every 30 feet horizontally.

Moving Scaffolds

Scaffolds may not be moved horizontally while employees are on them, unless they have been designed for that purpose by a registered professional engineer, or in the case of mobile scaffolds, where the provisions of the OSHA regulations (1926.452(w)) are followed.

Weather Conditions

Employees are not permitted to work on or from a scaffold during storms or high wind, unless the Name or other competent person has determined that it is safe, and those employees are protected by personal fall arrest systems, or wind screens (when windscreens are used the scaffold will be secured against the anticipated wind forces).

Fall Protection

Fall protection is required for employees erecting or dismantling supported scaffolds where it is feasible and where installing and using it does not create a greater hazard. Rangeline Group has designated Name as the competent person who will be responsible for determining the feasibility and safety of providing fall protection for employees erecting or dismantling supported scaffolds.

The most common scaffold hazard is worker falls. Fall protection consists of either personal fall-arrest systems or guardrail systems and will be provided on any scaffold 10 feet or more above a lower level. Specific requirements for fall protection for employees and contractors of Rangeline Group are described below.

Personal Fall Arrest System (PFAS)

In addition to meeting the OSHA Fall Protection requirements, personal fall-arrest systems used on scaffolds will be attached by lanyard to a vertical lifeline, horizontal lifeline, or scaffold structural member.

Lifelines.

When vertical lifelines are used, they will be fastened to a fixed safe point of anchorage, independent of the scaffold, and be protected from sharp edges and abrasion. Safe points of anchorage include structural members of buildings, but not standpipes, vents, or electrical conduits, which may give way under the force of a fall. When horizontal lifelines are used, they are to be secured to two or more structural members of the scaffold.

Guardrails

Guardrail systems will be installed along all open sides and ends of platforms and will be in place before the scaffold is released for use by employees other than erection/dismantling crews.

Each top-rail or equivalent member of a guardrail system will be able to withstand a force of at least 200 pounds applied in any downward or horizontal direction, at any point along its top edge. The top edge height of top-rails on supported scaffolds will be between 36 inches and 45 inches.

Midrails will be installed at a height approximately midway between the top edge of the guardrail system and the platform surface; and when screens and mesh are used, they will extend from the top edge of the guardrail system to the scaffold platform, and along the entire opening between the supports.

In lieu of guardrails, cross-bracing may serve as a top-rail or mid-rail, providing the crossing point is:

- Between 20 and 30 inches above the work platform for a mid-rail; *or*
- Between 38 and 48 inches above the work platform for a top-rail.

Falling Objects

When scaffolds are erected or in use, Rangeline Group will assure that any persons below are protected from falling hand tools, debris, and other small objects, by:

[Modify the list as applicable]

- Toe-boards, screens, or guardrail systems (see 29 CFR 1926 subpart L, Appendix A).
- Debris nets or canopy structures that contain or deflect falling objects; *and,*
- Placement of potential falling objects away from the edge of the surface from which they may fall.

Scaffold Platforms

A platform is a walkway or the work area of the scaffold and will be inspected. Each platform will be fully planked or decked and no gaps greater than 1 inch are permitted between adjacent planks or deck units.

Platforms used solely as walkways, or during erection or dismantling, require only the planking that Rangeline Group establishes is necessary to provide safe working conditions.

Wooden planking will not be painted. Platforms may be coated periodically with clear wood preservatives, fire retardants, and slip-resistant finishes.

Scaffold platforms and walkways will be at least 18 inches wide unless approved by the competent person.

Nothing that could cause a slip, trip, or fall (i.e. tools, scrap material, chemicals, snow, ice, etc.) is allowed to accumulate on the platform.

For most activities, there will be no more than a 14-inch gap between the scaffold platform and the structure being worked on.

To prevent slippage, platforms will be cleated or otherwise secured at each end, or else overlap end frames at least 6 inches, and not more than 12 inches

On scaffolds where platforms are overlapped to create a long platform, the overlap may only occur over supports, and may not be less than 12 inches, unless the platforms are restrained (i.e., nailed together) to prevent movement.

On scaffolds where platforms are abutted to create a long platform, each abutted end will rest on a separate support surface.

When brackets are used to support cantilevered platforms, they will be used only to support personnel, unless the scaffold has been designed for other loads by a qualified engineer.

Electrical Hazards

Scaffolds, or any conductive materials associated with them (e.g. building materials, paint roller extensions, scaffold components) will be located 10 feet or more from overhead power lines. Scaffolds may be closer to overhead power lines than specified above if such proximity is necessary for the type of work being done, and if the power company or electrical system operator has been notified and has either de-energized the lines, relocated the lines, or installed protective coverings to prevent accidental contact with the lines.

All portable electric equipment used on scaffolds will be protected by either ground fault circuit interrupters (GFCIs) or an assured equipment grounding conductor program.

Inspections

Scaffolds and scaffold components will be inspected for visible defects before each shift by the competent person, and after each occurrence that could affect a scaffold's integrity (i.e., being struck by a crane). Any part of a scaffold that has been damaged or weakened so that it no longer meets OSHA strength requirements will be repaired, replaced, braced, or removed from service.

See attachment Number for the Supported Scaffold Inspection Checklist.

Training

Employees who work on, erect, dismantle, repair, or inspect scaffolds will be trained to recognize hazards associated with scaffolds and to control such hazards.

Erecting, Dismantling, Repairing, and Inspecting Scaffolds

Employees who are involved in activities such as erecting, dismantling, repairing, and inspecting scaffolds will be trained or another competent person to recognize any hazards associated with those activities. Training will include:

- The nature of scaffold hazards
- Correct procedures for erecting, repairing, inspecting, and disassembling the type of scaffold in question
- The design criteria, maximum intended load capacity, and intended use of the scaffold • Any other pertinent requirements

Work While on Scaffolds

Employees who perform work while on a scaffold will be trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control those hazards. Training will include:

- The nature of any electrical hazards, fall hazards, and falling object hazards in the work area as well as the correct procedures for dealing with those hazards
- The proper use of the scaffold and the proper handling of materials on the scaffold
- The maximum intended load and the load-carrying capacity of the scaffold
- Any other pertinent requirements

Retraining

Employees will be retrained when there is reason to believe that the employee lacks the skill or understanding to safely erect, use, or dismantle a scaffold. Such retraining is required in at least the following situations:

Changes at the worksite present a hazard for which an employee has not previously been trained.

Changes in the types of scaffolds, fall protection, falling object protection, or other equipment present a hazard for which an employee has not previously been trained.

Inadequacies in an employee's work indicate that the employee does not have the necessary proficiency.

Recordkeeping

Rangeline Group will maintain a record of employees who have received training and the date the training was given.

Incident Investigations

All incidents that result in injury to workers, as well as near misses, regardless of their nature, will be reported and investigated. Investigations will be conducted by Name as soon after an incident as possible to identify the cause and recommend means of prevention to eliminate the risk of reoccurrence.
In the event of such an incident, the Scaffold Safety Plan will be reevaluated to determine if additional practices, procedures, or training are necessary to prevent similar future incidents.

Enforcement

All staff members are subject to discipline. Documentation of any violations will be kept in the staff member's personnel file.

Contractors

All outside contractors working in or on the premises of Rangeline Group will be required to follow the guidelines set forth in this scaffold safety program. Contractors in the pre-job meeting will be informed of these requirements as well as the on-site construction rules that apply.

End Of Policy

ATTACHMENT F

Aerial Lift Safety

1. Purpose

The purpose of this program is to define the requirements for safely operating an aerial lift device. An aerial lift device is defined as any device, vehicle mounted or manually propelled, telescoping or articulating, or both, which is used to position personnel above six feet in height.

2. Key Responsibilities

Supervisors

1. Shall ensure that all aerial devices are properly operated by trained personnel.

2. Shall ensure that aerial lift devices are designed and constructed in conformance with applicable requirements of the American National Standards for "Vehicle Mounted Elevating and Rotating Work Platforms" ANSI A92.2-1969, including appendix.

Employees

1. Shall follow all aspects of this program.

3. Procedure

1. Aerial lifts may not be "field modified" for uses other than those intended by the manufacturer unless the modification has been certified in writing by the manufacturer.

2. Lift controls shall be tested each day prior to use to determine that such controls are in safe working conditions.

3. Tests shall be made at the beginning of each shift during which the equipment is to be used to determine that the brakes and operating systems are in proper working condition.

4. A full safe operational inspection shall be conducted before use.

5. Only authorized persons shall operate an aerial lift.

6. Boom and basket load limits specified by the manufacturer shall not be exceeded.

7. Aerial lifts shall have a working back-up or motion alarm audible above the surrounding noise level or the vehicle is backed up only when an observer (spotter) signals that it is safe to do so.

8. The minimum clearance between electrical lines and any part of the equipment (i.e. crane or load) shall be 10 feet for lines rated 50 kV or below.

9. Employees shall always stand firmly on the floor of the basket and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.

10. Approved fall protection shall be worn and a lanyard attached to the proper attachment point on the boom or basket when working from an aerial lift.

11. All employees who operate an aerial lift device shall be trained in the safe operation of the specific device they will operate. Training must conform to all OSHA requirements.

End Of Policy

ATTACHMENT G

Lead Awareness

Purpose

The purpose of this procedure is to identify the controls and actions necessary to prevent adverse health effects to employees from occupational exposure to lead, and to ensure that Rangeline Group lead exposure management practices meet regulatory requirements.

Scope

This procedure applies to Rangeline Group operations where employees may be exposed to lead while working with lead containing materials during routine maintenance or emergency situations. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers Company employees and contractors and shall be used on owned premises, or when an operator's program does not exist or is less stringent.

Responsibilities

Managers and Supervisors

1. In coordination with the HSE Manager, develop and implement written project/task specific lead exposure management procedures prior to the start of activities to reduce exposure to or below the permissible limits.
2. Ensure personnel are aware of work that has the potential of exposure to lead.
3. Ensure individuals responsible for monitoring areas of exposure are properly trained.
4. Ensure personnel receive documented medical surveillance.
5. Ensure that all affected employees receive initial and annual lead management training.
6. Inform the HSE Manager of upcoming work involving lead-containing materials, allowing the HSE Manager to provide any necessary monitoring.
7. Ensure employees have the appropriate personal protective equipment (PPE) and are properly trained in its use and care, including respiratory protection, full body disposable clothing and gloves, when the Action Level is expected to be met or exceeded.
8. Ensure employees comply with the lead exposure management procedure.

Safety Department :

1. Coordinate air sampling and monitoring activities, ensuring monitoring equipment is in proper working order and, as necessary, modifying the lead exposure management procedures to reflect exposure monitoring data.

2. Maintain the lead exposure management procedure, notifying management of any regulatory changes and ensuring compliance with federal and state requirements.

3. Coordinate initial and annual refresher training activities.

4. Coordinate the medical surveillance program for employees exposed to lead above the Action Level for more than 30 days per year.

5. Coordinate waste management and disposal activities; ensuring waste with lead containing materials is disposed of only at an approved facility.

Affected Employees shall:

1. Comply with the lead exposure management procedure, consulting with the supervisor or HSE Manager to ensure the proper PPE is used when required.

2. Comply with the medical surveillance program.

3. Attend initial and annual refresher training.

4. Wear respiratory protection equipment and other specified PPE as required by the project/task specific control program.

5. Maintain respiratory protection equipment in good working order, notifying the supervisor or HSE Manager of any problems prior to starting work.

6. Review Safety Data Sheets or consult with the supervisor to identify any container with lead-containing material.

7. Leave the work area to wash if skin irritation is noted or if PPE has been compromised.

Procedure

Written Compliance Program

1. Each worksite when applicable shall develop and implement written project/task specific lead exposure management procedures prior to the start of activities to reduce exposure to or below the permissible limits if exposure is possible.

2. The procedure shall include engineering controls, work practices, PPE, air sampling, a description of each lead-related task and all employees shall be trained prior to work beginning.

3. The compliance program shall be revised and updated annually.

Permissible Exposure Limits

Per OSHA regulation, employees shall not be exposed to greater than 50 micrograms per cubic meter of air (50 µg/m3), time-weighted average, during an 8-hour workday. This permissible

exposure limit (PEL) includes the use of respiratory protection. If an employee is exposed more than 8 hours in any one workday, the maximum PEL (µg/m3) shall be calculated by using the following formula:

- 400/hours worked in the day
- For example: 400/12 hours = 33.33 µg/m3

If respirators are used to supplement engineering and/or work practice controls, the respirator's protection factor may be used to determine compliance with the PEL.

Exposure (Air) Monitoring

Exposure is defined in this section to be any employee who is not wearing a respirator to meet the Action Level and monitoring requirements in this section. Initial air samples shall be representative of the employee's regular, daily activities.

Initial sampling results:

- If the initial monitoring is less than the Action Level, monitoring need not be repeated unless there has been a production, process, control, or personnel change which may result in new or additional exposure to lead

- If the initial determination or subsequent monitoring reveals employee exposure to be at or above the Action Level but below the PEL, monitoring must be performed at least every six (6) months, with the cycle continuing until two (2) samples taken at least seven (7) days apart are below the action level

- If the initial determination exceeds the PEL, monitoring will be performed quarterly until two (2) samples taken at least seven (7) days apart are below the PEL but above the Action Level, and the monitoring frequency described above will be used

- Within 15 working days after the receipt of the results of any monitoring Rangeline Group shall notify each affected employee of these results either individually in writing or by posting the results in an appropriate location that is accessible to affected employees.

- Whenever the results indicate that the exposure, without regard to respirators, exceeds the permissible exposure limit, Rangeline Group shall include in the written notice a statement that the permissible exposure limit was exceeded and a description of the corrective action taken or to be taken to reduce exposure to or below the permissible exposure limit.

Control Measures

Engineering Controls

1. If an employee is exposed to lead above the PEL for 30 or more days in a year, engineering controls, including administrative controls, will be implemented to reduce the exposure

2. Respiratory protection will be used if engineering and administrative controls are not effective in reducing the exposure to or below the PEL

3. If air is re-circulated back into the workplace, the system must be equipped with a HEPA (high efficiency particulate air) and backup filter, and a system to monitor the lead level will be installed

4. When using mechanical means to remove lead-containing paints or coatings, use equipment which is equipped with a HEPA collection system

5. Whenever possible, use a wet system to reduce airborne dust

6. Whenever possible, substitute lead material with non-leaded material

Administrative Controls

Administrative controls will include :

1. Job rotation schedules to reduce employee PEL exposure.
2. When exposure to lead is at or above the PEL Rangeline Group shall provide lunch rooms, changing, shower and hygiene facilities.
3. Regulated access signs will demarcate the lead exposure regulated work areas. The signs will read as follows:

WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING

Personal Protective Equipment

1. Respirators shall be used during the time period required to install or implement control if engineering and work practices are insufficient as well as for emergency use.

2. PPE will be selected on the basis of its ability to prevent absorption, inhalation and ingestion and will be provided to employees at no cost.

3. PPE will reflect the needs of the employee based on work conditions, amount and duration of exposure and other known environmental factors.

4. If respirators are required, they will be NIOSH certified and all employees will follow the Rangeline Group Respiratory Protection Program.

5. Gloves, hats, vented goggles, shoes or disposable shoe covers shall be provided. Protective clothing shall be clean and dry.

6. Protective clothing shall be cleaned, laundered, repaired and replaced as necessary and disposable clothing shall be identified and handled properly.

Medical Surveillance

A baseline blood sample shall be obtained prior to any lead exposure.

1. Employees who are or may be exposed above the Action Level for more than 30 days per year will be included in a medical surveillance program which is performed by or under the supervision of a licensed physician at no cost to the employee.

2. Any employee with elevated blood levels shall be temporarily removed.

3. Blood sampling will occur at least every 6 months to each affected employee until two consecutive blood samples and analysis are acceptable.

4. Employees shall be notified in writing within 5 days of blood sampling results when lead levels are not acceptable.

5. Blood sampling shall occur monthly during a removal period of each employee removed from exposure to lead due to an elevated blood lead level.

6. Whenever the results of a blood lead level test indicate that an employee's blood lead level exceeds the level for medical removal Rangeline Group shall provide a second (follow-up) blood sampling test within two weeks after the employer receives the results of the first blood sampling test.

Medical Removal

Employees will be removed from exposure to lead when an exposure meets or exceeds the Action Level on each occasion that a periodic and follow-up blood sampling test indicates that blood lead level is at or above 60 µg/100 g of whole blood.

1. An employee will be removed from exposure to lead when the average of the last three (3) blood sampling tests indicates the employee's blood level is at or above 50 µg/100 g of whole blood (the employee need not be removed if the last blood sampling test shows blood lead level to be at or below 40 µg/100 g of whole blood).

2. If the employee's blood lead level does not decline adequately within 18 months of removal, the employee will be offered a medical examination to determine if the employee may be returned to his or her former job status.

3. Medical Removal Protection requirements of 1910.1025(k)(2) shall be followed.

Recordkeeping

Medical surveillance records shall be maintained for 30 years after termination of employment.

Exposure monitoring records shall be maintained for 30 years after completion of the project.

Exposure and medical monitoring records shall be made available to affected employees or their representatives and to regulatory agencies upon request.

Training

Training shall be provided to employees who have the potential to exposure of lead prior to the time of initial assignment and annually thereafter.

Training will include the following:

1. Distribute a copy of the content of the lead standard and its appendices and it is readily availability
2. Content of any compliance plan in effect
3. Access to information and training records
4. Specific operations where lead exposure is above the action level
5. Engineering controls and work practices associated with the job
6. Purpose, proper selection, fitting, use, and limitations of respirators
7. Purpose of the medical surveillance program, which will include potential health effects and medical removal program
8. Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician.
9. Training records shall be provided upon request all materials relating to the employee information and training program to regulatory agencies.

End Of Policy

ATTACHMENT H

BENZENE AWARENESS

PURPOSE

This practice identifies the requirements for minimizing exposure to benzene and products containing 0.1 percent or more of benzene.

SCOPE

This practice includes the following major sections

- General Requirements
- Monitoring
- Medical Surveillance
- Compliance Program
- Exposure Controls
- Training

APPLICATION

This practice applies to work activities and employees under the control of Rangeline Group and its contractors.

DEFINITIONS

Action Level (AL) – Refers to an exposure one half the allowable limit (TLV-TWA).

Regulated Area – Any area where airborne concentrations of benzene exceed or can reasonably be expected to exceed the allowable exposure limit(s).

Threshold Limit Value – Time-Weighted Average (TLV-TWA) – The TWA concentration for a conventional 8-hour workday and a 40-hour workweek, to which it is believed that nearly all workers may be repeatedly exposed, day after day, without adverse effect.

Threshold Limit Value – Short-Term Exposure Limit (TLV-STEL) – The concentration to which it is believed that workers can be exposed continuously for a short period of time without suffering from irritation, chronic or irreversible tissue damage, or narcosis of sufficient degree to increase the likelihood of accidental injury, impair self-rescue, or materially reduce work efficiency, and provided that the daily TLV-TWA is not exceeded. A STEL is a 15-minute TWA exposure that should not be exceeded at any time during a workday even if the 8-hour TWA is within the TLV-TWA.

1. GENERAL REQUIREMENTS

1.1 Properties and Effects

Benzene is classified by IARC, OSHA, NIOSH, and German MAK Commission as a known human carcinogen, therefore exposures to benzene should be avoided or minimized to the extent possible.

Benzene liquid is highly flammable and vapors may form explosive mixtures in air.

Physical Data

Color: Clear and colorless

Odor: Characteristic pleasant odor at low concentrations.
disagreeable at higher concentrations

Odor Threshold: Greater than 4.6 parts per million (ppm)

Explosive Limits: 1.4 - 8 percent

Boiling Point: 176 °F

Specific Gravity: 0.879 Floats on water

Vapor Density: 2.8 Heavier than air

Acute

Overexposure to high concentrations of benzene may result in feelings of breathlessness, irritability, euphoria, or light headiness. Irritation of the eyes, nose, and respiratory tract may be experienced. Headaches, dizziness, nausea, or intoxication may develop. Severe exposure may lead to convulsions and loss of consciousness.

Chronic

Repeated or prolonged exposure to benzene, without the use of personal protective equipment (PPE), may result in various blood disorders. Anemia and leukemia, a fatal cancer of the blood, are examples of adverse effects that may result from long-term exposure to benzene.

First Aid

Exposed employees must be moved to an uncontaminated atmosphere: wash exposed skin with soapy water; remove benzene-wetted clothing immediately; if benzene is ingested, do not induce vomiting; get the exposed employee medical attention.

Exposure Limits and Routes

Action Level

0.25 ppm averaged over 8 hours – the exposure level at which various parts of this practice are required to be implemented – for example, medical surveillance and training.

Exposure Limits

0.5 ppm averaged over 8 hours (ACGIH TLV)

2.5 ppm averaged over 15 minutes (ACGIH STEL)

Routes

Inhalation is the primary route of entry into the body. Exposures may occur during accidental spills and releases or in/near confined spaces. These exposures are typically experienced in operations such as sampling, liquid draining, and equipment maintenance.

Skin is also a possible route of entry. Benzene is poorly absorbed through healthy skin, but can be absorbed and significantly contribute to an employee's overall exposure through cuts, cores, etc. The primary effect of skin contact is defatting, resulting in irritation and dermatitis.

Healthy skin contact with benzene may cause temporary, but still serious, health problems such as defatting, resulting in irritation and dermatitis (rashes).

Ingestion of benzene is a remote form of exposure and is mainly due to poor personal hygiene practices – such as failure to wash hands before eating, chewing gum, or the use of tobacco products.

Owner/Client Program

Rangeline Group and its contractors/lower-tier contractors must be informed where benzene is used in a host facility, and of applicable plant safety rules regarding exposure and controls.

It may be appropriate – or even a requirement – to adopt/comply with the owner/client's written compliance program. The following must be performed by the HSE Representative:

An assessment will be made to ensure the program complies with applicable regulations.

MONITORING

Initial Industrial Hygiene Monitoring

Initial personal industrial hygiene (IH) monitoring must be performed to determine representative exposures for each job function in which employees may be exposed (regardless of level, frequency, or duration).

Periodic Monitoring

For job functions in which initial monitoring indicates benzene exposure above the AL, a written periodic IH monitoring program will be established as follows:

1. IH samples collected at least twice a year until engineering controls or work practices have been shown through additional IH monitoring to reduce exposure below allowable exposure limits.
2. IH samples collected at least annually until engineering controls or work practices have been shown through additional IH monitoring to reduce exposures below the AL.

3. Additional IH monitoring is required when there has been a change in the production, process, control equipment, personnel, or work practices that may result in new or additional exposures to benzene.

4. Additional IH monitoring is required when there is reason to suspect a change that may result in new or additional exposures.

5. Additional IH monitoring is required whenever spills, leaks, ruptures, or other breakdowns occur that may lead to employee exposure (to ensure that exposures have returned to the level that existed before the incident).

2.3 Observation of Monitoring

The monitoring process may be observed by all employees whom the monitoring affects.

2.4 Industrial Hygiene Monitoring Methods

IH monitoring methods for benzene include the following:

- Benzene-specific colorimetric tubes, also known as "length-of-stain" tubes. Examples include but are limited to products made by Draeger, Sensidyne, or Gastec.

NIOSH laboratory analysis method 1501, http://www.cdc.gov/niosh/nmam/pdfs/1501.pdf

- Atmospheric testing will be conducted within confined spaces before entry that have contained benzene, or other areas that have been identified as a benzene regulated area.

MEDICAL SURVEILLANCE

Initial and Periodic Medical Evaluations

Employees working in areas who have potential exposure to benzene will receive pre-employment and periodic medical evaluations as follows:

1. Potential exposure above the AL for 30 days or more per year

2. Exposed at/above the allowable limit(s) (regardless of frequency or duration)

3. If initial or periodic medical evaluations indicate an abnormal condition, further evaluations will be given and referrals made as determined by the healthcare provider.

Medical Evaluations as a Result of Emergency Exposures

In the event of exposure, without the use of proper respiratory protection, to an unforeseen release of benzene-containing vapor or liquid, the employee must provide a urine specimen to the designated healthcare provider The specimen must be collected no sooner than 6 hours and no later than 8 hours following the exposure.

- If the urine specimen indicates an abnormal condition, further evaluation will be performed and referrals made as determined by the healthcare provider.

Content

Content of medical evaluations will be in accordance with 29 Code of Federal Regulations (CFR) 1910.1028 (Benzene), or other applicable state or in-country standard.

COMPLIANCE PROGRAM

When IH monitoring results indicate an exposure over the exposure limit, a written compliance program will be developed to reduce future employee exposures to or below the exposure limit primarily by means of engineering and work practice controls.

- The written program will include a schedule for development and implementation of engineering and work practice controls. This program will be reviewed and revised as appropriate (but at least reviewed annually) based on the most recent exposure monitoring data, and to reflect the current status of the program.

EXPOSURE CONTROLS

Engineering

Where feasible, benzene exposures must be controlled through engineering controls. Work practices, respirators, and protective clothing may be used to control exposures that are intermittent, caused by emergency conditions, while awaiting engineering controls to be implemented, or where engineering controls are not feasible.

5.2 Respirators

Appropriate respiratory protection will be selected based on the best available information. Examples of best available information in order of preference include:

- Applicable IH monitoring results collected by the employer
- Written recommendations from the employer's corporate HSE professional
- Applicable IH monitoring results collected by the client
    i. Client-written requirements for respiratory protection

Benzene Concentration	Respirator	Cartridge
Unknown (such as no IH monitoring information and/or emergency response for a release)	Supplied air	Not applicable
Less than 0.25 ppm	None required	Not applicable
Greater than or equal to 0.25 ppm, but less than 2.5 ppm	Half-mask air purifying	Organic vapor (black) or organic vapor/acid gas (yellow) cartridges
Greater than or equal to 2.5 ppm, but less than 12 ppm	Full-face air purifying or supplied air	Organic vapor (black) or organic vapor/acid gas (yellow) cartridges
Equal to or above 12 ppm	Supplied air	Not applicable

ii. The following table

Respirator cartridges will be changed according to a schedule based on the best available information. Examples of such best available information in order of preference include:

1. As indicated by the respirator cartridge manufacturer's "end of service life indicator," if the respirator is so equipped
2. In accordance with the respirator cartridge manufacturer's written recommended calculations for determining such a change schedule
3. Every shift

Additional Personal Protective Equipment

When liquids containing benzene are present, engineering, administrative controls, or PPE must be used to prevent eye and skin contact. PPE will be provided at no cost to employees.

Work Controls Regulated Areas

To limit access to trained and authorized personnel only, regulated areas must be established and posted with the appropriate warning signs, Barricades, Signs, and Tags.

Warning signs should contain the following warning:

DANGER BENZENE CANCER HAZARD

FLAMMABLE - NO SMOKING AUTHORIZED PERSONNEL ONLY

RESPIRATORY PROTECTION REQUIRED

Warning signs must be in each of the languages used to communicate with employees.

Once established, an area will remain regulated until IH monitoring indicates the concentration of benzene in the air is less than the AL.

All persons entering a regulated area will wear appropriate respiratory protection and other PPE in accordance with this practice and as specified in the JHA or compliance program.

Job Hazard Analysis

Pre-task planning includes, as needed, a thorough identification of benzene/benzene-containing materials. Identification may include the product name or a safety data sheet (SDS). Sampling data includes location, sampling method, sampling dates, laboratory identification, and analytical method.

- Where an exposure limit is likely to be exceeded, a JHA will be developed.
- Results of bulk sampling, calculations of potential benzene exposure, and other data that demonstrate compliance with this practice (as well as the pertinent standards) will be attached to the JHA/compliance program.
- Where benzene exposure above the AL is suspected, and in the absence of IH monitoring data, interim protective measures will be used by employees that are equal to or greater than the assumed exposure level.

6. TRAINING

Training will be conducted as follows:

- Upon initial employment when employee has potential for exposure.
- Annually
- Any time there is a change in this practice
- When there is a change in or addition of a process or operation that creates the potential for exposure or increase in exposure

Training will include the following:

- Contents of this practice
- Contents of the relevant standard(s)
- Contents of the medical surveillance program
- Area emergency alarms and evacuation routes
- Location of emergency eye wash stations and showers
- Emergency phone numbers
- Appropriate protective measurements to control benzene exposures during normal operations and emergency situations

End Of Policy

ATTACHMENT I

CONTROL OF CADMIUM AND HEXAVALENT CHROMIUM

PURPOSE

This practice identifies the requirements for the use and handling of materials that expose employees to cadmium and hexavalent chromium.

SCOPE

This practice includes the following major sections:

- General Requirements
- Process

APPLICATION

This practice applies to work activities and employees under the control of Rangeline Group and its contractors.

GENERAL REQUIREMENTS

Whenever work activities may result in employee exposure to chromium or cadmium, or materials containing chromium or cadmium, the HSE Representative (for chromium) or a Competent Person (for cadmium) must assess the exposure potential before the start of work.

Construction work activities that result in exposure to chromium or cadmium may include, but are not limited to, the following:

- Demolition or salvage of structures where chromium or cadmium, or materials containing chromium or cadmium, are present
- Removal or encapsulation of materials containing chromium or cadmium
    - o New construction, alteration, repair, or renovation of structures and substrates that contain chromium or cadmium
- Installation of products containing chromium or cadmium
    - o Working with/around Portland cement (in powder or dust form – chromium only)
    - o Torch-cutting chromium/cadmium-containing paints
- Transportation, disposal, storage, or containment of chromium or cadmium, or materials containing chromium or cadmium

- Maintenance operations associated with construction activities. : Welding, cutting, burning, or grinding stainless steel, chromium/cadmium containing alloy steel, and chromium/cadmium-containing alloys

Exposure to chromium (especially hexavalent chromium) has also occurred when the welding rod or wire in use contains chromium

.

The permissible exposure limit (PEL) for cadmium and hexavalent chromium is 5 micrograms calculated as an 8-hour time-weighted average over a work shift.

The action level (AL) of 2.5 micrograms will trigger the following requirements:

- Pre-task planning includes, as needed, a thorough identification of chromium or cadmium materials. Identification may include the product name, a safety data sheet (SDS) or a sample content analysis. Sampling data includes location, sampling method, sampling dates, laboratory identification, and analytical method.
- If documentation is not feasible or has been determined by the Project HSE Representative to be unavailable or unreliable, a chromium or cadmium content sufficient to exceed the AL for chromium or cadmium is assumed.

Where the PEL is likely to be exceeded, a Job Hazard Analysis (JHA) will be developed.

Results of bulk sampling, calculations of potential chromium or cadmium exposure, and other data that demonstrate compliance with this practice (as well as the pertinent standards) will be attached to the JHA/compliance plan.

Where chromium or cadmium exposure above the AL is suspected, and in the absence of monitoring data, interim protective measures will be established that are equal to or greater than the assumed exposure level.

Personal protective equipment, appropriate to the type and extent of the hazard/exposure, will be provided to employees at no cost.

Hexavalent Chromium

Welding, Cutting, Burning

Certain welding and cutting activities have been shown to expose the welder/cutter, and potentially helpers, to hexavalent chromium above the action level when exhaust ventilation is not used. The activities have included the following:

- Shielded metal arc welding
- Gas metal arc welding
- Flux cored arc welding
- Sub arc welding
- Torch cutting through chromate-containing paints
- Grinding chromium-containing metals

The types of metal involved have been stainless steel, chromium-containing alloy steel, and chromium-containing nonferrous alloys. Exposure has also occurred when the welding rod or wire in use contains chromium, and exhaust ventilation is not used.

Therefore, exhaust ventilation must always be prescribed as a control measure when activities with the materials mentioned above are in use unless historical personal monitoring data performed when similar materials, using similar methods, under similar environmental conditions are used shows conclusively that the welder/cutter and helper (if applicable) are not exposed above the action level without regard to respiratory protection.

Additional controls may also be appropriate to be in compliance with 29 Code of Federal Regulation (CFR) 1926.1126, depending on the results of evaluations of the materials to be used, environmental conditions, and length of the work process/activity.

Plasma and Air Arc Cutting and Gouging

Plasma and air arc cutting and gouging operations have been shown to expose the employees and helpers within 10 feet (3.1 meters) of the work to levels of hexavalent chromium above the PEL under most circumstances and conditions. Therefore, exhaust ventilation and respiratory protection (at least a half-face, tight-fitting respirator with a HEPA filter/cartridge) must always be prescribed as control measures when activities with the materials mentioned above are in use; a higher level of respiratory protection may be prescribed, depending on conditions.

Each discrete task must begin with ventilation and respiratory protection control measures in place. Respiratory protection may be downgraded only upon conclusive results of breathing zone monitoring of the employee(s) involved in each discrete task showing exposure to be less than 50 percent of the protection factor of the respirator relative to the concentration and PEL of hexavalent chromium. Respiratory protection may be eliminated only upon conclusive results of breathing-zone monitoring of the employee(s) involved in each discrete task showing exposure to be less than the PEL as an 8-hour time-weighted average.

Additional controls may also be appropriate to be in compliance with 29 CFR 1926.1126, depending on the results of evaluations of the materials to be used, environmental conditions, and length of the work process/activity.

Employees will be informed, by the JHA review process, of the hazards of chromium or cadmium, and the precautions to take to avoid exposure.

Employees who are exposed at or above the AL 30 days or more per year will be enrolled in a medical surveillance program.

Personal hygiene is very important while working with chromium or cadmium products. To avoid accidental ingestion of chromium or cadmium, employees must wash thoroughly (regardless of other controls) before eating, chewing, smoking, or drinking.

PROCESS

Management/supervision supported by the Project HSE Representative, the medical provider, and training providers will conduct the following basic steps to control exposure to chromium or cadmium:

1. Determine the types of projects, activities, and operations that could involve chromium or cadmium, or chromium or cadmium-containing materials. For those jobs, conduct hazard identification as part of the work design, planning, and control process. Ensure that the Project HSE Representative participates in, or conducts, the hazard identification.

2. If chromium or cadmium materials are involved, ensure that the HSE Representative (for chromium) or a Competent Person (for cadmium) conducts a hazard evaluation to determine the potential exposure and to recommend initial controls.

3. Implement requirements of the applicable chromium standard (29 CFR 1926.1126 or other) and/or the cadmium standard (29 CFR 1926.1127 or other) when a potential chromium or cadmium hazard is present. Requirements include: Potential exposure determination, Breathing zone exposure monitoring, or developing a justification for not conducting monitoring based on previous monitoring/historical data or objective data (refer to section (n)(2) of the cadmium standard for the definition of objective data) demonstrating that exposure will not exceed the AL
    - Engineering controls o Consideration of respiratory protection
    - Protective clothing
    - Housekeeping
    - Hygiene areas and practices (including consideration of shower facilities)
    - Consideration of medical surveillance
    - Training
    - Record keeping
    - Specific cadmium requirements that should also be considered for chromium:
    - Regulated areas
    - Warning signs
    - Develop and implement a JHA when exposure is or is likely to be above the PEL. The JHA (or equal) addresses the scope of work activities; provides initial exposure assessment; and prescribes exposure controls, air-monitoring requirements, work practices, PPE, and additional information as required.
    - Determine chromium or cadmium exposure initially and periodically as work is conducted.
    - Air monitoring for chromium or cadmium may be waived provided the following conditions are met:
        - Monitoring has been performed in the last 12 months.
        - Data from historical monitoring originates from work operations that closely resemble the planned work operations.
        - Workplace and environmental conditions (such as indoors or outdoors, temperature, wind speed, ventilation, and space configuration) are similar to those when the monitoring was performed.
        - The processes, types of material, control methods, and work practices are similar.
    - Notify each affected employee, in writing, of the results of monitoring within 5 working days.
    - Provide employees with appropriate training and medical surveillance.

- Incorporate recommendations from the Project HSE Representative for chromium or cadmium hazard control measures into JHA and work control documents.
- Provide appropriate types of training for employees who are exposed to chromium or cadmium. This training includes:
- Hazard communication training for potentially exposed employees
- Training specified by the applicable chromium or cadmium standard for employees exposed at the AL for any one day, or
- who are exposed to chromium or cadmium compounds that are skin irritants
- Respirator training if respirators are to be used

Hazard communication training can be given in pre-task briefings, safety meetings, daily meetings, and other appropriate forums.

- Provide information to employees regarding task-specific chromium or cadmium hazards and controls, the JHA, work practices, and other applicable information, including any changes that are made to these controls.
- Provide training annually, as appropriate, to employees who continue to have exposure to chromium or cadmium at or above the AL on any one day.

The HSE Representative will perform the following:

- As part of the JHA and other hazard evaluation processes, identifies and evaluates chromium or cadmium hazards and potential exposures during planning and the conduct of work.
- Reviews and approves the JHA (or equal).
- As necessary, quantitatively determines the presence of chromium or cadmium in materials, substrates, and other media. This may involve the collection of samples for analysis by a qualified laboratory or field testing using acceptable test methods.

The (cadmium) Competent Person may perform the quantitative or qualitative determination in lieu the project HSE representative.

- Provides results of chromium or cadmium surveys to management/supervision, along with information regarding hazard potential and control measures. As appropriate, makes recommendations to management/supervision to maintain, modify, upgrade, or downgrade controls accordingly.
- Takes prompt corrective measures (or supports any Competent Person in this role) to eliminate hazards, such as recommending to management/supervision to implement or modify engineering, administrative, work practice, and personal protection (including respiratory protection) controls.
- Conducts periodic exposure assessments, as appropriate.
- As appropriate, assists management/supervision in ensuring that employees have the necessary training and medical surveillance based upon the activity and hazard.
- Ensures that medical monitoring is conducted in accordance with 29 CFR 1926.1126 (for chromium) or 29 CFR 1926.1127 (for cadmium), including imposition of work restrictions where appropriate and reviewing results of medical monitoring.

- In evaluating chromium or cadmium hazards and specifying controls for a job, (a) uses Rangeline Group historical exposure monitoring data generated for other similar operations or activities, (b) uses objective data, and/or (c) plans and conducts initial monitoring to determine exposures and assess the effectiveness of hazard controls.
- Conducts initial and periodic exposure monitoring in accordance with National Institute for Occupational Safety and Health (NIOSH)/OSHA methods if lacking historical or objective data.
- Maintains effective records of jobs monitored, so that a historical database can be used to specify controls and eliminate unnecessary and redundant monitoring for future activities.
- Supports project management/supervision in responding to exposures above the PEL when employees were not adequately protected.
- As appropriate, participates in pre-task and daily employee briefings regarding task-specific chromium or cadmium hazards and controls, work practices/plans (such as JHAs), and other applicable information, including any changes that are made to controls or to the work practices or plans.

End Of Policy

ATTACHMENT J

Heat Illness and Prevention

The following information has been collected from the National Institute for Occupational Safety and Health (NIOSH). The purpose of this program is to provide guidance for protecting employees from hazards of high heat conditions and to provide information on engineering, administrative and PPE controls. Being uncomfortable is not the major problem with working in high temperatures and humilities. Workers who are suddenly exposed to working in a hot environment face additional and generally avoidable hazards to their safety and health.

Although RANGELINE GROUP employees may not normally work in hot environments for extended periods of time, information is provided for awareness/training purposes. This program will increase employee awareness of the risks of working in hot environments and measures to reduce those risks.

This written heat illness prevention program/procedures applies to all employees that may be required to work in hot environments.

RESPONSIBILITIES

Management:

- provide information to workers on signs of heat stress
- provide means of preventing heat stress and other issues arising from heat related health hazards

Site Supervisors are assigned with direct oversight of the **Heat Illness & Prevention Program** at a given jobsite.

Employees:

Employees are responsible for attending training and following the instructions given. They are also responsible for monitoring themselves and fellow workers for signs and symptoms of heat stress.

Control of Heat Stress

The following guidelines should be followed to prevent heat-related disorders.

1. **Engineering Controls**: Heat may be controlled through general ventilation and spot cooling by local exhaust ventilation at the point of high heat production. Shielding may be needed for protection against radiant heat sources. Other control measures include opening windows or using fans to create airflow. Outdoor work areas need to have a shaded area accessible to the employees. Shaded areas can be created by using tarps or canopies or equipping tractors with canopies or cabs.

2. **Acclimatization**: Employees need to adapt to new temperatures. This adaptation period may take a few days. This period should begin with 50% of the normal workload the first day and gradually build up to 100%.

3. **Weather Conditions**: Check weather conditions frequently during the day and adjust the work schedule. It might be appropriate to change the actual hours of work to minimize working during the heat of the summer months. Heavy work should be scheduled for the cooler hours of the day.

4. **Work/Rest Cycles**: Heavy and minimal work activities should be alternated. Tasks should be rotated among workers. Employees should be allowed sufficient breaks in a cool area to avoid heat strain and promote recovery. Shade or an air-conditioned break room should be provided.

5. **Personal Protective Equipment**: During work in hot environments, workers should use the lightest weight or "breathable" protective garments that give adequate protection.

6. **Fluid Intake**: Fluids, such as water or electrolyte replacement drinks, i.e. Gatorade®, need to be conveniently available to workers so they can drink about 8 oz. of liquids every 20 minutes. The ideal temperature for liquids should be 50°- 60° F. For remote outdoor work locations this means providing a cooler of liquids and ice that the workers can transport with them to the location.

7. **Training**: Employees should be trained prior to working in a high heat area to be aware of the hazards of working in the heat, how to recognize heat-related illnesses and procedures for first aid and medical attention. They should also be aware of the methods used to avoid heat-related illnesses, including how some things, which happen off the job, can increase the risk of heat illnesses at work.

One of the best ways to reduce heat stress on workers is to minimize heat in the workplace. However, there are some work environments where heat production is difficult to control, such as when furnaces or sources of steam or hot water are present in the work area or when the workplace itself is outdoors and exposed to varying warm weather conditions.

Humans are, to a large extent, capable of adjusting to the heat. This adjustment to heat, under normal circumstances, usually takes about 5 to 7 days, during which time the body will undergo a series of changes that will make continued exposure to heat more endurable.

On the first day of work in a hot environment, the body temperature, pulse rate, and general discomfort will be higher. With each succeeding daily exposure, all of these responses will gradually decrease, while the sweat rate will increase. When the body becomes acclimated to the heat, the worker will find it possible to perform work with less strain.

Gradual exposure to heat gives the body time to become accustomed to higher environmental temperatures. Heat disorders in general are more likely to occur among workers who have not been given time to adjust to working in the heat or among workers who have been away from hot environments and who have gotten accustomed to lower temperatures. Hot weather conditions of the summer are likely to affect the worker who is not acclimatized to heat. Likewise, workers who

return to work after a leisurely vacation or extended illness may be affected by the heat in the work environment. Whenever such circumstances occur, the worker should be gradually re-acclimatized to the hot environment.

Lessening Stressful Conditions

Many industries have attempted to reduce the hazards of heat stress by introducing engineering controls, training workers in the recognition and prevention of heat stress, and implementing work-rest cycles. Heat stress depends, in part, on the amount of heat the worker's body produces while a job is being performed. The amount of heat produced during hard, steady work is much higher than that produced during intermittent or light work. Therefore, one way of reducing the potential for heat stress is to make the job easier or lessen its duration by providing adequate rest time. Mechanization of work procedures can often make it possible to isolate workers from the heat sources (perhaps in an air-conditioned booth) and increase overall productivity by decreasing the time needed for rest. Another approach to reducing the level of heat stress is the use of engineering controls which include ventilation and heat shielding.

Number and Duration of Exposures

Rather than be exposed to heat for extended periods of time during the course of a job, workers should, wherever possible, be permitted to distribute the workload evenly over the day and incorporate work-rest cycles. Work-rest cycles give the body an opportunity to get rid of excess heat, slow down the production of internal body heat, and provide greater blood flow to the skin.

Workers employed outdoors are especially subject to weather changes. A hot spell or a rise in humidity can create overly stressful conditions. The following practices can help to reduce heat stress:

- Postponement of nonessential tasks
- Permit only those workers acclimatized to heat to perform the more strenuous tasks
- Provide additional workers to perform the tasks keeping in mind that all workers should have the physical capacity to perform the task and that they should be accustomed to the heat.

Thermal Conditions in the Workplace

A variety of engineering controls can be introduced to minimize exposure to heat. For instance, improving the insulation on a furnace wall can reduce its surface temperature and the temperature of the area around it. In a laundry room, exhaust hoods installed over those sources releasing moisture will lower the humidity in the work area. In general, the simplest and least expensive methods of reducing heat and humidity can be accomplished by:

- Opening windows in hot work areas
- Using fans
- Using other methods of creating airflow such as exhaust ventilation or air blowers.

Rest Areas

Providing cool rest areas in hot work environments considerably reduces the stress of working in those environments. There is no conclusive information available on the ideal temperature for a

rest area. However, a rest area with a temperature near 76 degrees F appears to be adequate and may even feel chilly to a hot, sweating worker, until acclimated to the cooler environment. The rest area should be as close to the workplace as possible. Individual work periods should not be lengthened in favor of prolonged rest periods. Shorter but frequent work-rest cycles are the greatest benefit to the worker.

Drinking Water

Employees shall have access to potable drinking water. Where it is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning and throughout the work shift.

In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat. Because so many heat disorders involve excessive dehydration of the body, it is essential that water intake during the workday be about equal to the amount of sweat produced. Most workers exposed to hot conditions drink less fluids than needed because of an insufficient thirst drive. A worker, therefore, should not depend on thirst to signal when and how much to drink. Instead, the worker should drink 5 to 7 ounces of fluids every 15 to 20 minutes to replenish the necessary fluids in the body. There is no optimum temperature of drinking water, but most people tend not to drink warm or very cold fluids as readily as they will cool ones. Whatever the temperature of the water, it must be palatable and readily available to the worker. Individual drinking cups should be provided---- never use a common drinking cup.

Heat acclimatized workers lose much less salt in their sweat than do workers who are not adjusted to the heat. The average American diet contains sufficient salt for acclimatized workers even when sweat production is high. If, for some reason, salt replacement is required, the best way to compensate for the loss is to add a little extra salt to the food. Salt tablets should not be used.

> *CAUTION -- Persons with heart problems or those on a low sodium diet who work in hot environments should consult a physician about what to do under these conditions.*

Protective Clothing

Clothing inhibits the transfer of heat between the body and the surrounding environment. Therefore, in hot jobs where the air temperature is lower than skin temperature, wearing clothing reduces the body's ability to lose heat into the air.

When air temperature is higher than skin temperature, clothing helps to prevent the transfer of heat from the air to the body. However, this advantage may be nullified if the clothes interfere with the evaporation of sweat.

In dry climates, adequate evaporation of sweat is seldom a problem. In a dry work environment with very high air temperatures, protective clothing could be an advantage to the worker. The proper type of clothing depends on the specific circumstance. Certain work in hot environments may require insulated gloves, insulated suits, reflective clothing, or infrared reflecting face shields.

Employee Awareness

The key to preventing excessive heat stress is educating the employer and worker on the hazards of working in heat and the benefits of implementing proper controls and work practices. The employer should establish a program designed to acclimatize workers who must be exposed to hot environments and provide necessary work-rest cycles and water to minimize heat stress.

Special Considerations

During unusually hot weather conditions lasting longer than 2 days, the number of heat illnesses usually increases. This is due to several factors, such as progressive body fluid deficit, loss of appetite (and possible salt deficit), buildup of heat in living and work areas, and breakdown of air-conditioning equipment. Therefore, it is advisable to make a special effort to adhere rigorously to the above preventive measures during these extended hot spells and to avoid any unnecessary or unusual stressful activity. Sufficient sleep and good nutrition are important for maintaining a high level of heat tolerance. Workers who may be at a greater risk of heat illnesses are the obese, the chronically ill, and older individuals.

When feasible, the most stressful tasks should be performed during the cooler parts of the day (early morning or at night). Double shifts and overtime should be avoided whenever possible. Rest periods should be extended to alleviate the increase in the body heat load.

The consumption of alcoholic beverages during prolonged periods of heat can cause additional dehydration. Persons taking certain medications (e.g., medications for blood pressure control, diuretics, or water pills) should consult their physicians in order to determine if any side effects could occur during excessive heat exposure. Daily fluid intake must be sufficient to prevent significant weight loss during the workday and over the workweek

High-Heat Procedures

High-heat procedures are to be followed when the temperature exceeds 95 degrees Fahrenheit. These high-heat procedures shall include, but are not limited to:

1. Effective communication by voice, observation or electronic means
2. Observation of employees for alertness and signs/symptoms of heat illness
3. Reminding employees to drink water throughout the shift
4. Closely supervising employees for their first 14 days of employment

How the Body Handles Heat

The human body, being warm blooded, maintains a fairly constant internal temperature, even though it is being exposed to varying environmental temperatures. To keep internal body temperatures within safe limits, the body must get rid of its excess heat, primarily through varying the rate and amount of blood circulation through the skin and the release of fluid onto the skin by the sweat glands. These automatic responses usually occur when the temperature of the blood exceeds 98.6°F and are kept in balance and controlled by the brain. In this process of lowering internal body temperature, the heart begins to pump more blood, blood vessels expand to accommodate the increased flow, and the microscopic blood vessels (capillaries) which thread through the upper layers of the skin begin to fill with blood. The blood circulates closer to the surface of the skin, and the excess heat is lost to the cooler environment.

If heat loss from increased blood circulation through the skin is not adequate, the brain continues to sense overheating and signals the sweat glands in the skin to shed large quantities of sweat onto the skin surface. Evaporation of sweat cools the skin, eliminating large quantities of heat from the body.

As environmental temperatures approach normal skin temperature, cooling of the body becomes more difficult. If air temperature is as warm as or warmer than the skin, blood brought to the body surface cannot lose its heat. Under these conditions, the heart continues to pump blood to the body surface, the sweat glands pour liquids containing electrolytes onto the surface of the skin and the evaporation of the sweat becomes the principal effective means of maintaining a constant body temperature. Sweating does not cool the body unless the moisture is removed from the skin by evaporation. Under conditions of high humidity, the evaporation of sweat from the skin is decreased and the body's efforts to maintain an acceptable body temperature may be significantly impaired. These conditions adversely affect an individual's ability to work in the hot environment. With so much blood going to the external surface of the body, relatively less goes to the active muscles, the brain, and other internal organs; strength declines; and fatigue occurs sooner than it would otherwise. Alertness and mental capacity also may be affected. Workers who must perform delicate or detailed work may find their accuracy suffering, and others may find their comprehension and retention of information lowered.

> *NOTE -- There may be a number of high humidity areas within the work environment. On hot days, this can significantly increase your risk of a heat stress problem.*

Safety Problems

Certain safety problems are common to hot environments. Heat tends to promote accidents due to the slipperiness of sweaty palms, dizziness, or the fogging of safety glasses. Wherever there exists molten metal, hot surfaces, steam, etc., the possibility of burns from accidental contact also exists.

Aside from these obvious dangers, the frequency of accidents, in general, appears to be higher in hot environments than in more moderate environmental conditions. One reason is that working in a hot environment lowers the mental alertness and physical performance of an individual. Increased body temperature and physical discomfort promote irritability, anger, and other emotional states which sometimes cause workers to overlook safety procedures or to divert attention from hazardous tasks.

Requirements

When assigning work in hot environments, the supervisor needs to determine those individuals and the work areas that present a potential high risk.
Four environmental factors affect the amount of stress a worker experiences in a hot environment:

1. temperature,
2. humidity,
3. air velocity, and
4. radiant heat. (Examples of radiant heat include direct heat from the sun or a furnace).

Job-related factors that affect heat stress must be considered these include but are not necessarily limited to type of work, work rate, weight, physical effort required, duration,

type & color of clothing, protective equipment used, and breathability. All of these factors need to be evaluated in order to minimize their impact on the worker.

In addition to the above, supervisors must ensure personal factors that contribute to heat related illness are taken into consideration before assigning a task where there is the possibility of a heat-related illness occurring. The most common personal factors that can contribute to heat related illness are age, weight/fitness, drug/alcohol use, prior heat-related illness, acclimatization to the heat, etc.

Heat stress is the effect of heat on the body. Many factors contribute to heat stress, but the most important elements influencing heat stress and comfort are temperature and humidity. As the chart shows, the combination of high temperature and humidity greatly increases the threat for heat stress.

Table 1: Heat Stress Index

Apparent Temperature or Heat Stress Index is the latest development in comfort indices. This index assumes a very light breeze and you being in the shade. Of course, how hot "it feels" varies from one person to another, but this index seems to give a good idea of what the hot weather "feels like."

	%Relative Humidity																	
TEMPERATURE		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
	85	79	80	81	82	83	84	85	86	87	88	89	90	91	93	95	97	99
	90	84	85	86	87	88	90	91	93	95	96	98	100	102	106	109	113	117
	95	88	90	91	93	94	96	98	101	104	107	110	114	119	124	130	136	
	100	93	95	97	99	101	104	107	110	115	120	126	132	138	144			
	105	97	100	102	105	109	113	118	123	129	135	142	149					
	110	102	105	108	112	117	123	130	137	143	150							
	115	107	111	115	120	127	135	143	151									
	120	111	116	123	130	139	148											
	125	116	123	131	141													
	130	122	131															

Table 2: Apparent Temperature or Heat Stress Index

Danger Category	Apparent Temperature	Heat Syndrome
Extreme Danger	Greater than 130	Heatstroke or sunstroke imminent

Danger	**105-130**	**Sunstroke or heat exhaustion likely. Heatstroke possible with prolonged physical activity**
Extreme Caution	**90-105**	**Sunstroke or heat exhaustion possible with prolonged exposure or physical activity**
Caution	**80-90**	**Fatigue possible with prolonged exposure and physical activity**

Health Disorders

Employees suffering from heat illness or believing a preventative recovery period is needed, will be provided access to an area with shade that is either open to the air or provided with ventilation or cooling. Such access to shade will be permitted at all times.

At or below 85 degrees Fahrenheit the employee shall have timely access to shade upon request. For temperatures at or above 85 degrees Fahrenheit, one or more areas with shade shall be provided at all times while employees are present. Shade shall accommodate at least 25% of employees on shift at any one time

The human body regulates high temperatures by two primary mechanisms; blood flow and sweating. Blood is circulated to the skin, increasing the skin temperature and allowing the body to give off the excess heat through the skin. Sweating occurs when the body senses the heat loss due to increased blood circulation is not enough to cool the body. Evaporation of the sweat cools the skin and eliminates large quantities of heat from the body.

If the body is unable to release excess heat, it will store it. When this happens, the body's core temperature rises and the heart rate increases. If the body continues to store heat, the person may begin to have difficulty concentrating, may become irritable and lose the desire to drink. The next stage is often fainting which would signal a medical emergency. Listed in Table 3 are the 3 most common heat disorders with the accompanying symptoms and appropriate first aid measures.

Table 3: Heat Disorders

Disorder	Cause	Signs & Symptoms	Treatment
Heat Cramps	Heavy sweating Loss of salt	Painful spasms of arms, legs and abdomen Sudden onset Hot, moist skin	Drink water Massage cramped area Rest
Heat Exhaustion	Dehydration Non-acclimatized	Heavy sweating Intense thirst	Move to shade or an air-conditioned space

		Pale, moist, cool skin Rapid pulse Fatigue, weakness Fainting, collapse	Rest, lying down, legs elevated Loosen clothing Drink water
Heat Stroke	Excessive exposure to hot environments Body's system of temp. regulation fails Body temp. rises to critical levels	High body temperature Lack of sweating Hot, red, dry skin Rapid pulse Chills Difficulty breathing Disoriented Weakness Unconsciousness	Call for emergency help Immerse person in water Massage body with ice

Employees identified as working in a high-risk area will need to follow the guidelines in Table 4 and the section **Control of Heat Stress**. Employees who are working outdoors or in non-air-conditioned space should pay attention to the temperature, humidity and heat stress indices.

When the heat stress index, as defined in Table 2, exceeds the extreme caution level of 90° F, precautions as outlined in Table 4 and the section **Control of Heat Stress** should be followed. If employees are wearing protective clothing, precautions as outlined in Table 3 and the section **Control of Heat Stress** should be followed at a heat index in excess of 88° F.

Table 4: Guidelines for Heat Exposure Limits

Discontinue any activity for a person when:
• Sustained heart rate greater than 160 beats per minute for those under 35 and 140 for those 35 and over.
• There are complaints of sudden and severe fatigue, nausea, dizziness, lightheadedness, or fainting.
• There are periods of inexplicable irritability, malaise or flu-like symptoms.
• Sweating stops and the skin becomes hot and dry.

Excessive exposure to a hot work environment can bring about a variety of heat-induced disorders. Now let's expand on the 3 heat disorders indicated above, and consider 3 others; fainting, heat rash, and transient heat fatigue.

Heat Stroke

Heat stroke is the most serious of health problems associated with working in hot environments. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate. The body's only effective means of removing excess heat is compromised with little warning to the victim that a crisis stage has been reached.

A heat stroke victim's skin is hot, usually dry, red or spotted. Body temperature is usually 105_F or higher, and the victim is mentally confused, delirious, perhaps in convulsions, or unconscious. Unless the victim receives quick and appropriate treatment, death can occur.

Any person with signs or symptoms of heat stroke requires immediate hospitalization. However, first aid should be immediately administered. This includes removing the victim to a cool area, thoroughly soaking the clothing with water, and vigorously fanning the body to increase cooling. Further treatment at a medical facility should be continued with monitoring of complications which often accompany a heat stroke. Early recognition and treatment of heat stroke are the only means of preventing permanent brain damage or death.

Heat Exhaustion

Heat exhaustion includes several clinical disorders having symptoms which may resemble the early symptoms of heat stroke. Heat exhaustion is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt. A worker suffering from heat exhaustion still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. In more serious cases, the victim may vomit or lose consciousness. The skin is clammy and moist, the complexion is pale or flushed, and the body temperature is normal or only slightly elevated.

In most cases, treatment involves having the victim rest in a cool place and drink plenty of liquids. Victims with mild cases of heat exhaustion usually recover spontaneously with this treatment. Those with severe cases may require extended care for several days. There are no known permanent effects.

CAUTION -- Persons with heart problems or those on a low sodium diet who work in hot environments should consult a physician about what to do under these conditions.

Heat Cramps

Heat cramps are painful spasms of the muscles that occur among those who sweat profusely in heat, drink large quantities of water, but do not adequately replace the body's salt loss. The drinking of large quantities of water tends to dilute the body's fluids, while the body continues to lose salt. Shortly thereafter, the low salt level in the muscles causes painful cramps. The affected muscles may be part of the arms, legs, or abdomen, but tired muscles (those used in performing the work) are usually the ones most susceptible to cramps. Cramps may occur during or after work hours and may be relieved by taking salted liquids by mouth.

CAUTION -- Persons with heart problems or those on a low sodium diet who work in hot environments should consult a physician about what to do under these conditions.

Fainting

A worker who is not accustomed to hot environments and who stands erect and immobile in the heat may faint. With enlarged blood vessels in the skin and in the lower part of the body due to the body's attempts to control internal temperature, blood may pool there rather than return to the heart to be pumped to the brain. Upon lying down, the worker should soon recover. By moving around, and thereby preventing blood from pooling, the patient can prevent further fainting.

Heat Rash

Heat Rash, also known as prickly heat, is likely to occur in hot, humid environments where sweat is not easily removed from the surface of the skin by evaporation and the skin remains wet most of the time. The sweat ducts become plugged, and a skin rash soon appears. When the rash is extensive or when it is complicated by infection, prickly heat can be very uncomfortable and may reduce a worker's performance. The worker can prevent this condition by resting in a cool place part of each day and by regularly bathing and drying the skin.

Transient Heat Fatigue

Transient heat fatigue refers to the temporary state of discomfort and mental or psychological strain arising from prolonged heat exposure. Workers unaccustomed to the heat are particularly susceptible and can suffer, to varying degrees, a decline in task performance, coordination, alertness, and vigilance. The severity of transient heat fatigue will be lessened by a period of gradual adjustment to the hot environment (heat acclimatization).

Training

A copy of this written program will be provided to employees during training.

Supervisor Training

Supervisors must receive training in the prevention of heat related illnesses prior to supervising employees working in heat.

Supervisors will be trained in these heat illness procedures to prevent heat illness and procedures to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures. Specific training as a minimum should include:

1. The procedures the supervisor is to follow to implement the applicable procedures to prevent heat illness.
2. The procedures the supervisor is to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.

Employee Training

All employees that work in hot environments must receive training prior to beginning work in the hot environment. The training program should include:

1. The environmental and personal risk factors for heat illness;
2. Company procedures for complying with the requirements of this standard;
3. The importance of frequent consumption of small quantities of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties;
4. The importance of acclimatization;

5. The different types of heat illness and the common signs and symptoms of heat illness;
6. The importance to employees of immediately reporting to the employer, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in co-workers;
7. Company procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary;
8. Company procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider;
9. Company procedures for ensuring that, in the event of an emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders

References

National Institute for Occupational Safety and Health (NIOSH)
Occupational Safety and Health Administration (OSHA)

End Of Policy

ATTACHMENT K

Cold Stress and Prevention

Introduction

This procedure establishes safety and health guidance that RANGELINE GROUP may use to prevent injury from cold stress to personnel.

Occupational cold stress injuries, and accidents must be prevented. Preventative measures will be introduced in circumstances where a cold stress injury or illness may occur. If preventative measures are not found to be effective, worker monitoring and control measures will be put into effect. Supervisors will be responsible for identifying and aiding in cold stress injury and illness prevention.

Two or three employees may work at the same job, exposed to the same conditions, and even though one will be affected by the cold, the others may not. Age, weight, physical fitness, metabolism, alcohol or drug abuse, and medical condition are some of the determining factors affecting a person's sensitivity to cold and susceptibility to cold injuries.

Cold induced occupational illnesses, injuries and reduced productivity occur in situations where the cold load exceeds the capacities of the body to maintain normal body functions due to excessive strain or slowed body metabolism and even tissue damage. At varying levels of cold stress, the employee's compensatory mechanisms will no longer be capable of maintaining body temperature at the level required for normal body functions. Because of this, the result of cold stress illnesses, disorders, and accidents may dramatically increase.

The human body loses heat through radiation losses, convection, and conduction when air moves around the body and by exhalation. These heat removal methods are necessary to keep the core body temperature at a constant rate. As the human body functions, the body chemistry generates heat. The body uses the food and water ingested to generate heat, and other chemicals to maintain the biosystems. All of these chemical reactions in the human body are temperature sensitive. If the core temperature of the human body varies more than 3.6° F, the chemistry begins to fail and the body systems can begin to fail.

Part of the heat generated by the body chemistry goes to maintain the body temperature so that the chemical reactions will occur. The remainder of the heat generated is excess and is lost by the mechanisms described above.

Cold temperatures create stress on the body by reducing body temperature, causing the body to increase its efforts to produce more heat, reducing body chemical reaction rates, and destroying cells by freezing. The use of protective equipment may give the wearer a false indication of the level of cold exposure. The trunk of the body is warm but the extremities are cold and losing heat faster than expected by the employee.

Cold stress has the potential to cause serious injury or even death. Cold stress can result in frozen skin, a lowering of the normal body temperature, or both. Cold and icy weather also increases the frequency of injuries from slips and falls.

The cold can affect the function of hands and fingers so that a worker loses feeling and dexterity, making it difficult to handle tools, equipment, and materials, thereby increasing the chance of an accident. The cold can also affect a worker's mood. Workers who are cold and uncomfortable may be less alert to hazards or may rush to get a job done so that they can get inside and get warm.

Cold Weather Considerations

Although one would normally define severe cold weather as less than 32°F, or perhaps less than 0°F, even temperatures above freezing can have a harmful effect on humans.

The human body operates at an average of about 98°F. If exposed to the elements over time, even temperatures moderately lower than this can lead to problems such as hypothermia (low body temperature).

As the temperature goes down, pay attention to the extremities. Fingers, toes, ears and the nose receive the least amount of blood. These areas will usually be the first to suffer frostbite.

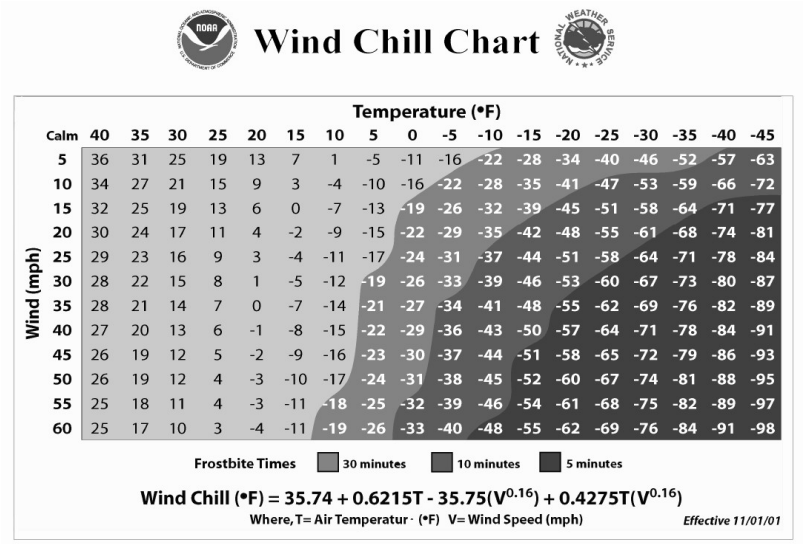
Snow and ice present hazards to both personnel, such as slips and falls and to equipment, such as falling icicles.

Cold Stress

The effects of work in cold environments depend upon factors such as air temperature and wind, duration of exposure, type of protective clothing and equipment, type of work, level of physical effort, and health status of the worker.

Employees working outdoors in temperatures at or below freezing may suffer from cold stress problems. Cold stress problems include the following: frostbite, hypothermia, and even shock. Extreme cold for a short time may cause severe injury to the surface of the body, or result in generalized cooling, potentially causing death. Areas of the body which have high surface-area-to-volume ratio such as fingers, toes, and ears, are the most susceptible.

Two factors influence the development of a cold injury, ambient temperature and wind velocity. Wind chill is used to describe the chilling effects of moving air in combination with low temperature. For example, 10° F with a wind of 15 miles per hour (mph) is equivalent in chilling effect to still air at -18° F. As a general rule, the greatest incremental increase in wind chill occurs when a wind of 5 mph increases to 10 mph. Additionally, water conducts heat 240 times faster than air. Thus, the body cools suddenly when chemical-protective equipment is removed if the clothing underneath is perspiration soaked.



Hypothermia:

Hypothermia results when the body loses heat faster than it can produce it. When the core body temperature drops below the normal 98.6° F to around 95° F, the onset of symptoms normally begins. When this occurs, the blood vessels in the skin constrict to conserve the important vital heat, usually affecting the hands and feet first. Involuntary shivering is the first sign of hypothermia. Further heat loss produces speech difficulty, forgetfulness, loss of manual dexterity, collapse, and finally death. Dangerous amounts of body heat can be lost in temperatures as warm as 40° F. The symptoms will usually become very apparent and include:

- Uncontrollable shivering
- Vague, slow, slurred speech
- Memory lapses and incoherence
- Immobile or fumbling hands
- Frequent stumbling, general problems walking
- Drowsiness
- Apparent exhaustion, inability to get up after resting
- Freezing of the extremities; and
- Death

If a person shows any signs of overexposure to cold or wet and windy weather, take the following measures, even if the person claims to be in no difficulty.

- Provide shelter.
- Dry clothing is a must.
- Warm the person. Do not use hot water. Warm water bottles, heating pads, warm towels etc. should be used.
- Concentrate heat on the trunk of the body first.

- Head, chest and stomach should be the first to get heated as they contain the body's vital organs (brain, heart, kidneys, liver, & lungs).
- Keep the head low and the feet raised to move warming blood to the head.
- Give the person warm drinks only if conscious and able to drink without difficulty.
- Never give the person alcohol, sedatives, tranquilizers, or pain relievers as these only slow down the body's metabolism.
- Keep the person quiet. Do not massage or rub affected areas of the body as this can increase any injury.
- Obtain medical assistance

If you must go outside in severe cold weather:

- Avoid overexertion. Cold weather alone, even without any extra exertion, puts an extra strain on the heart. Activities like shoveling snow or pushing a car can cause overexertion of the heart, so do them with caution and moderation.
- Dress warmly. Loose fitting, layered, lightweight clothing is best. Outer garments should be tightly woven and water repellent. Wear a hat. Mittens protect the fingers better than gloves.
- Make sure your clothing is dry. If you become wet, change into dry clothing. Wet clothing accelerates hypothermia.
- Watch for frostbite. Fingers, toes, ears and nose will freeze first and will cause a loss of feeling and white or pale skin color. If this occurs get medical attention immediately; do not rub the affected area; and treat it the same as hypothermia.
- Avoid alcoholic beverages. Contrary to popular belief, alcohol causes the body to lose heat more rapidly.

Shock may occur from extreme cold stress. Shock results from a depressed state of several vital body functions. During shock, the blood circulation is disturbed or even stopped due to the body's reaction to severe cold. Immediate medical attention is needed as soon as possible.

Frostbite:

Frostbite occurs when there is actual freezing of the body tissues, normally when temperatures are below freezing. While frostbite usually occurs when the temperatures are 30° F or below, wind chill factors can allow frostbite to occur above freezing temperatures. The injury can result from exposure to cold wind, from prolonged exposure to cold temperatures, or from skin contact with objects whose temperatures are below freezing. The tissue damage can be superficial near the skin or extend to deeper body tissues and cause gangrene with amputation of the frostbitten area. The skin may first have a prickly or tingling sensation and later become numb with cold; the skin color turns red, then purple, then white, and is cold to the touch. There may be blisters in severe cases.

Frostbite occurs when crystals form either superficially or deeply in the fluids and underlying soft tissues of the skin. There are several degrees of damage from frostbite. Frostbite of the extremities can be categorized into:

- Frost nip or incipient frostbite is characterized by sudden blanching or whitening of skin.

- Superficial frostbite occurs when skin has a waxy or white appearance and is firm to the touch, but tissue beneath is resilient.
- Deep frostbite occurs when tissues are cold, pale, and solid, extremely serious injury. Signs and symptoms of frostbite include the following:

    - Pale and glossy skin
    - Skin color changes to white or grayish yellow
    - Mental confusion
    - Affected part feels intensely cold and numb
    - Failing eyesight
    - Unconsciousness
    - Shock
    - Respiratory failure
    - Death

First aid procedures for frostbite include the following:

- When possible, re-warm the affected area by immersing it in cold water and gradually warming the water between 102° F and 105° F. DO NOT USE HOT WATER.
    - Note: if a thermometer is not available, test the water by dipping your elbow in it, making sure that it is just above normal body temperature.

- Re-warming with water will take 20-30 minutes and will be accompanied by increasing pain.
- If warm water is not available, wrap the affected area with blankets or use body heat to thaw the affected part.
- Once re-warmed, do not allow the victim to use the affected area until it has been examined by a physician.
- Protect the affected area to keep it clean and warm.
    - Note: Thawing of superficial frostbite includes a tingling and burning sensation in the affected area, followed by a purplish or mottled color as blood circulation is restored.
    - WARNING! Once a frostbite area has been thawed, do not allow it to refreeze. This causes significant damage and typically results in amputation.

- Never rub a frostbite area in an attempt to warm it. This action damages the tissue and can result in the formation of gangrene.

Immersion Foot or Trench Foot:

These two cold injuries occur as a result of exposure to cool or cold water. Immersion foot usually results from prolonged exposure when air temperatures are above freezing, whereas trench foot normally occurs from shorter exposure at temperatures near freezing. The symptoms for each disorder are similar and include tingling, itching, swelling, pain in some cases or numbness in others, lack of sweating, and blisters.

Treatment of Cold Disorders:

The intent of all treatment is to increase the deep body temperature to 98.6 °F. Symptoms include heavy shivering, drowsiness, excessive fatigue, and confusion, in addition to those listed above. Cold work should be discontinued for any worker with these symptoms, and the worker should be brought to a warm area. Since wet clothing contributes to cold stress, wet clothing should be removed if possible and replaced by dry clothing. A warm, non-alcoholic non-caffeinated drink or soup may be given. The frozen part should be covered with extra clothing or blankets or be warmed against your body. Do not use direct heat and do not rub the affected area. Warming should be rapid but very gentle.

Avoidance of Cold-Related Emergencies:

Workers exposed to the cold should be physically fit, without any circulatory, metabolic, or neurologic diseases that may place them at increased risk for hypothermia. Providing a period of acclimatization for new employees and those returning from other work activities can help reduce the risks of cold stress problems. Acclimatization to the cold through short exposures followed by longer periods of work in the cold areas can also reduce cold stress.

The consumption of drinking water is important throughout cold work activities. Working in the cold can cause a significant water loss through the skin and lungs as a result of the dryness of the air. Increased fluid intake is essential to prevent dehydration that can increase the risk of damage to the extremities since blood flow is decreased. Warm, sweet drinks (but not caffeinated) or soups should be consumed.

Protective clothing is the most important way to avoid cold stress. The type of fabric also makes a difference. Cotton loses its insulation value when it comes wet. Wool, silk and most synthetics, on the other hand, retain their insulation even when wet. The following are recommendations for working in cold environments:

- Wear at least three layers of clothing. An inner layer of wool, silk or synthetic to wick moisture away from the body. A middle layer of wool or synthetic to provide insulation even when wet. An outer wind and rain protection layer that allows some ventilation to prevent overheating.
- Wear a hat or hood. Up to 40% of body heat can be lost when the head is left exposed.
- Wear insulated boots or other footwear.
- Keep a change of dry clothing available in case work clothes become wet.
- With the exception of the wicking layer do not wear tight clothing. Loose clothing allows better ventilation of heat away from the body.
- Do not underestimate the wetting effects of perspiration. Oftentimes wicking and venting of the body's sweat and heat are more important than protecting from rain or snow.

Safe Work Practices

- Carrying a well-charged cell phone is a good idea anytime you head outside. If

an accident occurs, you can call for help quickly.

- Walk carefully on snowy and icy sidewalks. Regularly used walkways and travel ways should be sanded, salted, or cleared of snow and ice as-soon-as possible.
- If you shovel snow, be very careful to avoid overexertion. Keep relatively active, but not so active that you become damp with sweat.
- Change out of wet clothing or socks as soon as possible.
- Don't use unprotected metal chair seats or touch any cold objects with bare hands.
- People who are taking certain medications, older, overweight, have allergies, smoke, or have poor circulation (diabetics, for example) are more prone to cold injuries and should take extra precautions.
- Drink plenty of liquids, Avoid caffeine. DO NOT drink alcohol.
- Avoid soaking clothing or gloves with any liquids (especially gasoline, alcohol, or cleaning fluids) due to the added danger of evaporative cooling.
- For work at -15° F or below, follow a work-rest schedule (see ACGIH Table 3 for work/rest schedule for cold stress). Work/rest schedules take into account the expected wind velocity and air temperatures.
- Always work under the buddy system to ensure that no employee is working alone in cold work environments.
- As much as possible, avoid using vibrating tools in very cold temperatures.
- Wear UV protective eyewear if you must work outdoors in snow or ice-covered terrain.
- If you have a pre-existing injury or if you are injured on the job during cold stress periods, see your supervisor immediately. Injured tissues can be more susceptible to the cold.
- Air purifying respirators (APRs) shall not be worn at temperatures below 32 °F without the nose cup.
- Powered APRs (PAPRs) shall not be used in temperatures below 40 °F because of the wind-chill created in the face piece.
- All workers should be trained in the recognition of symptoms, treatment of cold stress disorders, and wind-chill index.
- Work should be carefully scheduled to avoid heavy perspiration by workers. Schedule heavier work in warmer parts of the day. Take breaks out of the cold.
- Avoid fatigue since energy is needed to keep muscles warm. Take frequent breaks and consume warm, high calorie food to maintain energy reserves.
- Extremities of the body should be protected adequately. Hands should be covered with gloves and, for temperatures below 0 °F, mittens. Caps, hoods, hard hats with liners, etc., should be used to cover the head and ears. Feet should be protected with insulated boots, layer of socks, or boot covers as appropriate.
- There should be an appropriate work-rest regime or schedule and a heated shelter for relief from the cold.
- A change of dry work clothing should be on hand for each worker.
- Warm, non-alcoholic drinks (avoid or minimize coffee or other caffeine) and/or soups should be available.
- Bare metal equipment controls, seats, etc., should be covered with non-conducting materials.
- Work planning should consider the fact that the additional weight and bulkiness of clothing may affect work performance. Work planning should minimize standing still or sitting still for long periods.

- Work should be performed away from windy or drafty areas or unprotected areas as much as possible.
- Regular inspections on cold weather supplies (e.g. hand warmers, jackets, shovels, etc.) should be carried out to ensure that supplies are always in stock.

ADMINISTRATIVE/ ENGINEERING CONTROLS AND PPE

Administrative controls must be instituted for employee protection when engineering controls are not practical. One example of administrative control is limiting the work time by defining a period range based on the work, environment, and clothing requirements. Another example may be the alternation of employees in cold areas limiting exposure times or increasing break periods.

Periodic breaks for warming up through the use of heated enclosures or heaters may be necessary in freezing temperatures.

Insulated clothing and even multiple layers of clothing can be used in cold conditions. One problem with the multiple layers is the decreased means of mobility.

TRAINING

Workers exposed to cold should receive initial and annual training regarding the health effects of cold exposure, proper rewarming procedures, recognition and first aid for frostbite and hypothermia, required protective clothing, acclimatization, proper use of warming shelters, the buddy system, vehicle breakdown procedures, and proper eating and drinking habits for working in the cold. Cold stress training is necessary to ensure effective work practices. If employees do not understand the reasons for using appropriate work practices to prevent cold stress, the chances of preventing a problem is reduced.

Training supervisors to recognize and be able to correctly treat cold stress problems is very important. Employees' physical conditions should be considered when determining their fitness for working in cold areas. Older employees, obese employees, and those taking some type of prescription drug are usually at a greater risk for experiencing a cold related problem.

All employees should be trained on the dangers and destructive potential caused by unstable snow buildup, sharp icicles, and ice dams and know how to prevent accidents caused by them.

End Of Policy

ATTACHMENT L

PROCESS SAFETY MANAGEMENT (PSM)

1. Process Safety Management is the proactive identification, evaluation and mitigation or prevention of chemical releases that could occur as a result of failures in process, procedures or equipment. The major purpose of process safety management of highly hazardous chemicals is to prevent or minimize consequences of catastrophic releases of toxic, reactive, flammable or explosive chemicals in various industries such as refineries.
2. RANGELINE GROUP is required to recognize and participate as a contract employer at client locations with PSM Programs in place. RANGELINE GROUP as a contractor has certain obligations to fulfill in order to comply with established PSM programs. Contract employer responsibilities are as follows:

2.1. RANGELINE GROUP shall assure that each Rangeline Group and contract employee is trained in the work practices necessary to safely perform his/her job.

2.2. RANGELINE GROUP shall assure that each Rangeline Group and contract employee is instructed in the known potential fire, explosion, or toxic release hazards related to his/her job and the process, and the applicable provisions of the emergency action plan.

2.3. RANGELINE GROUP shall document that each contract employee has received and understood the training required by this paragraph. RANGELINE GROUP shall prepare a record, which contains the identity of the contract employee, the date of training, and the means used to verify that the employee understood the training.

2.4. RANGELINE GROUP shall assure that each contract employee follows the safety rules of the facility including the safe work practices required with 1910.119(f)(4).

2.5. RANGELINE GROUP shall advise the employer of any unique hazards presented by RANGELINE GROUP 's work, or of any hazards found by RANGELINE GROUP 's work.

2.6. RANGELINE GROUP will ensure that trade secret information will be kept in confidence as process safety information is released to them.

RANGELINE GROUP employees shall participate in all as directed client PSM requirements, including:

- Employee Participation.
- Process Hazards Analysis (PHA)
- Training
- Pre-Startup Safety Review (PSSR)
- Hot Work Permits

- Incident Investigation
- Compliance Audits
- Contractors
- Process Safety Information (PSI)
- Operating Procedures
- Mechanical Integrity
- Management of Change
- Emergency Planning and Response
- Trade Secrets

3. RANGELINE GROUP , as a contract employer, shall follow safe work practices established by the employer. The client shall develop and implement safe work practices to provide for the control of hazards during operations such as lockout/tagout; confined space entry; opening process equipment or piping; hot work; and control over entrance into a facility by maintenance, contractor, laboratory, or other support personnel. These safe work practices shall apply to client employees and contractor employees. To comply with 1910.119(f)(4) RANGELINE GROUP employees are required to complete all required documentation for any permit required activities.

4. RANGELINE GROUP shall not perform hot work until a hot work permit is obtained from the client. The permit shall document that provisions of CFR 1910.252(a) have been met.

5. RANGELINE GROUP employees must immediately report all accidents, injuries and near misses. An incident investigation must be initiated within 48 hours. Resolutions and corrective actions must be documented and maintained for 5 years.

6. In the event RANGELINE GROUP becomes the sole operator of a facility, the existing PSM Program for that facility may be amended and adopted or, in the absence of a PSM Program, an assessment will be required prior to assuming operating responsibilities.

End Of Policy

ATTACHMENT M

MANUAL LIFTING

Purpose

The purpose of the Rangeline Group Manual Material Handling Program is to apply ergonomic principles and sound decision-making to the workplace in an effort to reduce the number of manual lifts thus decreasing workplace injuries and, where possible, increasing productivity, quality and efficiency.

A proactive material handling approach focuses on making changes when risk factors have been identified, as well as incorporating automated material handling into the design phase of new facilities, equipment, tools and scheduling changes.

All employees are required to follow the minimum procedures outlined in this program. Any deviations from this program must be immediately brought to the attention of the Program Administrator.

Scope

Rangeline Group strives to provide all employees with a safe and healthy workplace. This Manual Material Handling Program is integrated into our company's written safety and health program and is a collaborative effort that includes all employees. The Program Administrator is responsible for the program's implementation, management and recordkeeping requirements.

Program Responsibilities

Management:

The management of Rangeline Group is committed to the safe handling of all materials. Management supports the efforts of the Manual Material Handling Program Administrator by pledging financial and leadership support for the identification and control of material handling risk factors.

Material Handling Program Administrator:

The Program Administrator will report directly to upper management and be responsible for this program. All evaluations, controls and training will be coordinated under the direction of the Program Administrator in collaboration with management. The Program Administrator will monitor the results of the program and determine additional areas of focus as needed. The Program Administrator will also:

- Ensure that those performing worksite evaluations and training are properly trained
- Ensure that control measures are implemented in a timely manner
- Schedule manager, supervisor and employee training and maintain records to include date, name of instructor, topic and materials used
- Follow-up with any material handling strategy and/or solutions

- Monitor the program on a quarterly basis and provide an annual review
- Assist in selection of appropriate material handling equipment and tools

Department Managers and Supervisors:

Managers and supervisors of Rangeline Group will:

- Remain accountable for the health and safety of all employees within their departments through the active support of this program
- Attend material handling training on the recognition and control of work-related material handling risk factors; this is a supplemental component to our Ergonomics program
- Ensure that a hazard assessment is completed before manual lifting is accomplished. This assessment must consider the size, bulk and weight of the object being lifted. Also, in consideration of this assessment, are there alternatives to manually lifting or carrying the object.
- Ensure that employees in their areas have received the appropriate training
- Evaluate material handling practices and techniques every shift and when conducting work station and worksite evaluations to determine hazards and methods to mitigate injuries.
- Ensure that recommended controls are implemented and/or used appropriately through active follow-up
- Provide employees with and ensure the proper use of appropriate tools, equipment, parts and materials
- Maintain clear communication with managers and employees
- Make assistance available to employees who manually handle or lift items weighing 50 pounds or greater

Employees:

Every employee of Rangeline Group is responsible for conducting himself/herself in accordance with this policy and program.

All employees will:

- Use two-wheeled trucks, four-wheeled carts, roller conveyors, pallet jacks, or any other material handling equipment in the manner established by managers and supervisors
- Ensure that equipment is properly maintained in good condition and when not, report it immediately
- Provide feedback to managers and supervisors regarding the effectiveness of design changes, new tools or equipment
- Attend training as required and apply the knowledge and skills acquired during training to their jobs, tasks, processes, and work activities
- Use proper lifting and material handling techniques as outlined in this policy
- Limit manual lifting or handling tasks to objects less than 50 pounds
- Get assistance whenever manually handling or lifting materials that are 50 pounds or greater

- Report injuries within 24 hours of their occurrence. All musculoskeletal injuries involving lifting shall be investigated, documented and the preventive measures shared with all employees to prevent future injuries.

Employee involvement is an essential element to the success of this program. Employee participation in the program will occur only during company time. Employees that identify lifting hazards or other safety hazards will immediately notify their supervisor. If a supervisor is not available, they are to contact the Safety Manager or Program Administrator.

Manual Material Handling Risks

Material Handling Equipment.
Additional tools and equipment are required when lifting or handling material weighing over 50 pounds. Manual material handling equipment should be used only for its designed task and maintained in good condition.

- Where use of lifting equipment is impractical, two-man lifts are required.

The manual material handling equipment available at Rangeline Group includes:

- Two-Wheel Trucks: Do not overload these trucks; load a maximum of 200 pounds. Make sure hand trucks are stored in a vertical position when not in use.

- Four-Wheel Carts: Load material evenly on carts to prevent tipping and view obstruction. Push rather than pull carts, unless specially designed to be pulled.

- Roller Conveyor: Keep hands and feet away from pinch points and make sure that rollers extend beyond the load.

- Pallet Jacks (manual or powered): Use a jack properly rated for the load. Place the jack on a level, stable, and clean surface. Avoid metal-to-metal contact (jack to surface being lifted) by using wooden shims.

Housekeeping.
Material handling and storage areas must be kept free of excess materials that create hazards (i.e., fire, explosions, slips, trips, or infestation by insects or rodents.)

Aisles and Passageways.
Where mechanical handling equipment is used, 10-foot safe clearances shall be allowed for aisles, at loading docks, through doorways, and wherever turns or passage must be made. Aisles and passageways shall be kept clear and in good repair, with no obstruction across or in aisles that could create a hazard.

Permanent aisles and passageways are marked with yellow lines. Clearance signs and warning of clearance limits are posted throughout the facility where headroom is below 10 feet. All equipment is marked indicating the working load it will safely support. Do not overload any piece of equipment.

Employee Training

Training is intended to enhance the ability of managers, supervisors and employees to recognize work-related material handling risk factors and to understand and apply appropriate control strategies.

Training in the recognition and control of these risk factors will be given as follows:

- To all new employees during orientation
- To all employees assuming a new job assignment requiring manual material handling
- When new jobs, tasks, tools, equipment, machinery, workstations or processes are introduced
- When high exposure risk factors have been identified

The minimum training requirements for all managers, supervisors and employees will include the following elements:

- An explanation of Rangeline Group material handling program and their role in the program
- Knowledge of job tasks that require manual material handling
- An understanding of the basics of ergonomics
- The methods used by Rangeline Group to minimize work-related risk factors
- Proper lifting techniques
- Procedures for reporting musculoskeletal injuries
- General recognition of hazards while lifting, placing, walking with objects

Training should include the following topics:

- Mechanical aids for carrying or moving loads are to be used whenever possible to minimize manual material handling. These mechanical aids include hand trucks, carts, dollies, rolling conveyors, wheelbarrows, etc. When designing or modifying storage areas, store heavy items on shelves between knee and shoulder level and avoid storing items on the floor. Also, lighter items should be stored on top shelves.
- Whenever possible, decrease the object container size, change container shape and/or add handles to aid in handling.

Even when mechanical aids are used to move materials, some lifting cannot be avoided. Before you lift, remember the following:

- Use manual material handling devices (hand dollies, carts, lift tables, forklifts) where defined by the company and wherever possible in all other situations
- Wear supportive shoes

- When possible, push and pull rather than lift and lower
- Reduce the size of the material to keep it light, compact and easy to grasp
- Try to have most workplace deliveries placed at hip height
- Always keep objects in the comfort zone (between hip and shoulder height)
- Keep all loads close to and in front of the body
- Keep the back aligned while lifting
- Keep elbows near 90 degrees
- Avoid slopes
- Avoid uneven floors
- Maintain the center of balance
- Let the legs do the actual lifting
- Decide on the route to take
- Check the route for any problems or obstacles such as slippery or cluttered floors

Unloading objects should be done the same way as loading objects, but in the reverse order as follows:

- Slowly bend your knees to lower the load
- Keep your back straight and the weight close to the center of your body
- Allow enough room for fingers and toes when the load is set down
- Place the load on a bench or table by resting it on the edge and pushing it forward with your arms and body
- Secure the load to ensure that it will not fall, tip over, roll or block someone's way

One-arm loads are used when carrying items such as pails or buckets. Lifting and carrying one-arm loads should be performed as follows:

- Bend at the knees and waist, keeping your back straight
- Reach for the load
- Grasp the handle of the load firmly
- Lift with your legs, not your shoulders and upper back
- Keep your shoulders level while switching hands regularly to reduce overexerting one side of the body

Team lifts are used when objects are too heavy, too large or too awkward for one person to lift. Team lifts should be performed as follows:

- Work with someone of similar build and height, if possible
- Choose one person to direct the lift (e.g., "lift on the count of three")
- Lift with your legs and raise the load to the desired level at the same time
- Always keep the load at the same level while carrying
- Move smoothly and in unison
- Set the load down together

Overhead loads should be eliminated, if possible, but if necessary, should be conducted as follows:

- When lifting or lowering objects from above the shoulders, lighten the load whenever possible
- Stand on something sturdy such as a step stool or platform to decrease the vertical distance
- When lowering objects from above the shoulders, grasp the object firmly, bring the load as close to your body as possible, slide it down slowly and proceed with your move

End Of Policy

ATTACHMENT M

Silica Exposure

1.0 PURPOSE

This Respirable Crystalline Silica Program was developed to prevent employee exposure to hazardous levels of Respirable Crystalline Silica that could result through construction activities or nearby construction activities occurring on worksites. Respirable Crystalline Silica exposure at hazardous levels can lead to lung cancer, silicosis, chronic obstructive pulmonary disease, and kidney disease. It is intended to meet the requirements of the Respirable Crystalline Silica Construction Standard (29 CFR 1926.1153) established by the Occupational Safety and Health Administration (OSHA).

All work involving chipping, cutting, drilling, grinding, or similar activities on materials containing Crystalline Silica can lead to the release of respirable-sized particles of Crystalline Silica (i.e. Respirable Crystalline Silica). Crystalline Silica is a basic component of soil, sand, granite and many other minerals. Quartz is the most common form of Crystalline Silica. Many materials found on constructions sites include Crystalline Silica; including but not limited to – cement, concrete, asphalt, pre-formed structures (inlets, pipe, etc.) and others. Consequently, this program has been developed to address and control these potential exposures to prevent our employees from experiencing the effects of occupational illnesses related to Respirable Crystalline Silica exposure.

2.0 SCOPE

This Respirable Crystalline Silica Program applies to all employees who have the potential to be exposed to Respirable Crystalline Silica when covered by the OSHA Standard. The OSHA Respirable Crystalline Silica Construction Standard applies to all occupational exposures to Respirable Crystalline Silica in construction work, except where employee exposure will remain below 25 micrograms of Respirable Crystalline Silica per cubic meter of air (25 $\mu g/m^3$) as an 8-hour time-weighted average (TWA) under any foreseeable conditions.

3.0 RESPONSIBILITIES

Rangeline Group firmly believes protecting the health and safety of our employees is everyone's responsibility. This responsibility begins with management providing the necessary support to properly implement this program. However, all levels of the organization assume some level of responsibility for this program including the following positions.

Safety Department:

- Conduct job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments in order to determine if an employee's exposure will be above 25 µg/m^3 as an 8-hour TWA under any foreseeable conditions

- Select and implement into the project's ECP the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard Table 1; and potentially including (but not limited to) - a written Exposure Control Plan (ECP), exposure monitoring, Hazard Communication training, medical surveillance, housekeeping and others.

  NOTE: OSHA's Construction Standard Table 1 is a list of 18 common construction tasks along with acceptable exposure control methods and work practices that limit exposure for those tasks.

- Ensure that the materials, tools, equipment, personal protective equipment (PPE), and other resources (such as worker training) required to fully implement and maintain this Respirable Crystalline Silica Program are in place and readily available if needed.

- Ensure that Project Managers, Site Managers, Competent Persons, and employees are educated in the hazards of Silica exposure and trained to work safely with Silica in accordance with OSHA's Respirable Crystalline Silica Construction Standard and OSHA's Hazard Communication Standard. Managers and Competent Persons may receive more advanced training than other employees.

- Maintain written records of training (for example, proper use of respirators), ECPs, inspections (for equipment, PPE, and work methods/practices), medical surveillance (under lock and key), respirator medical clearances (under lock and key) and fit-test results.

- Conduct an annual review (or more often if conditions change) of the effectiveness of this program and any active project ECP's that extends beyond a year. This includes a review of available dust control technologies to ensure these are selected and used when practical.

- Coordinate work with other employers and contractors to ensure a safe work environment relative to Silica exposure.

Management:

- Ensure all applicable elements of this Respirable Crystalline Silica Program are implemented on the project including the selection of a Competent Person.

- Assist the Safety Department in conducting job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments in order to determine if an ECP, exposure monitoring, and medical surveillance is necessary.

- Assist in the selection and implementation of the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard Table 1; and potentially including (but not limited to) - a written Exposure Control Plan (ECP), exposure monitoring, Hazard Communication training, medical surveillance, housekeeping and others.

- Ensure that employees using respirators have been properly trained, medically cleared, and fit-tested in accordance with the company's Respiratory Protection Program. This process will be documented.

- Ensure that work is conducted in a manner that minimizes and adequately controls the risk to workers and others. This includes ensuring that workers use appropriate engineering controls, work practices, and wear the necessary PPE.

- Where there is risk of exposure to Silica dust, verify employees are properly trained on the applicable contents of this program, the project-specific ECP, and the applicable OSHA Standards (such as Hazard Communication). Ensure employees are provided appropriate PPE when conducting such work.

Competent Person and/or Supervisor (Superintendent, Foreman, etc.)

- Make frequent and regular inspections of job sites, materials, and equipment to implement the written ECP.

- Identify existing and foreseeable Respirable Crystalline Silica hazards in the workplace and take prompt corrective measures to eliminate or minimize them.

- Notify the Project Manager and/or Safety Department of any deficiencies identified during inspections in order to coordinate and facilitate prompt corrective action.

- Assist the Project Manager and Safety Department in conducting job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments in order to determine if an ECP, exposure monitoring, and medical surveillance is necessary.

Employees:

- Follow recognized work procedures (such as the Construction Tasks identified in OSHA's Construction Standard Table 1) as established in the project's ECP and this program.

- Use the assigned PPE in an effective and safe manner.

- Participate in Respirable Crystalline Silica exposure monitoring and the medical surveillance program.

- Report any unsafe conditions or acts to the Site Manager and/or Competent Person.

- Report any exposure incidents or any signs or symptoms of Silica illness.

4.0 DEFINITIONS

If a definition is not listed in this section, please contact your supervisor. If your supervisor is unaware of what the term means, please contact the Competent Person or your Safety Department.

- Action Level means a concentration of airborne Respirable Crystalline Silica of 25 $\mu g/m^3$, calculated as an 8-hour TWA.

- Competent Person means an individual who can identify existing and foreseeable Respirable Crystalline Silica hazards in the workplace and who has authorization to take prompt corrective measures to eliminate or minimize them.

- Employee Exposure means the exposure to airborne Respirable Crystalline Silica that would occur if the employee were not using a respirator.

- High-Efficiency Particulate Air (HEPA) Filter means a filter that is at least 99.97 percent efficient in removing monodispersed particles of 0.3 micrometers in diameter.

- Objective Data means information, such as air monitoring data from industry-wide surveys or calculations based on the composition of a substance, demonstrating employee exposure to Respirable Crystalline Silica associated with a particular product or material or a specific process, task, or activity. The data must reflect workplace conditions closely resembling or with a higher exposure potential than the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.

- Permissible Exposure Limit (PEL) means the employer shall ensure that no employee is exposed to an airborne concentration of Respirable Crystalline Silica in excess of 50 $\mu g/m^3$, calculated as an 8-hour TWA.

- Physician or Other Licensed Health Care Professional (PLHCP) means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide or be delegated the responsibility to provide some or all of the particular health care services required by the Medical Surveillance Section of the OSHA Respirable Crystalline Silica Standard.

- Respirable Crystalline Silica means Quartz, Cristobalite, and/or Tridymite contained in airborne particles that are determined to be respirable by a sampling device designed to meet the characteristics for respirable-particle size- selective samplers specified in the International Organization for Standardization (ISO) 7708:1995: Air Quality-Particle Size Fraction Definitions for Health-Related Sampling.

- Specialist means an American Board-Certified Specialist in Pulmonary Disease or an American Board-Certified Specialist in Occupational Medicine.

5.0 REQUIREMENTS

Specified Exposure Control Methods

When possible and applicable, RANGELINE GROUP will conduct activities with potential Silica exposure to be consistent with OSHA's Construction Standard Table 1. Supervisors will ensure each employee under their supervision and engaged in a task identified on OSHA's Construction Standard Table 1 have fully and properly implemented the engineering controls, work practices, and respiratory protection specified for the task on Table 1 (unless RANGELINE GROUP has assessed and limited the exposure of the employee to Respirable Crystalline Silica in accordance with the Alternative Exposure Control Methods Section of this program).

The task(s) being performed by RANGELINE GROUP identified on OSHA's Construction Standard Table 1 is/are: Select any/all of the following that apply:

Table 1:

Specified Exposure Control Methods When Working with Materials Containing Crystalline Silica

Construction Task or Equipment Operation		**Engineering and Work Practice Control Methods**	**Required Respiratory Protection**	
			≤ 4 hours/shift	**>4 hours/shift**
1	Stationary masonry saws	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
2a	Handheld power saws (any blade diameter) when used outdoors	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
2b	Handheld power saws (any blade diameter) when used indoors or in an enclosed area	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
3	Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less) for	Use saw equipped with commercially available dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or	None	None

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
	tasks performed outdoors only	greater, and have a filter with 99% or greater efficiency.		
4a	Walk-behind saws when used outdoors	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
4b	Walk-behind saws when used indoors or in an enclosed area	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N95 or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
5	Drivable saws for tasks performed outdoors only	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
6	Rig-mounted core saws or drills	Use tool equipped with integrated water delivery system that supplies water to cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
7	Handheld and stand-mounted drills (including impact and rotary hammer drills)	Use drill equipped with commercially available shroud or cowling with dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes.	None	None
8	Dowel drilling rigs for concrete for tasks performed outdoors only	Use shroud around drill bit with a dust collection system. Dust collector must have a filter with 99% or greater efficiency and a filter cleaning mechanism.	N95 (or Greater Efficiency) Filtering	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
		Use a HEPA-filtered vacuum when cleaning holes.	Facepiece or Half Mask	
9a	Vehicle-mounted drilling rigs for rock and concrete	Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector.	None	None
9b	Vehicle-mounted drilling rigs for rock and concrete	Operate from within an enclosed cab and use water for dust suppression on drill bit.	None	None
10a	Jackhammers and handheld powered chipping tools when used outdoors	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10b	Jackhammers and handheld powered chipping tools when used indoors or in an enclosed area	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10c	Jackhammers and handheld powered chipping tools when used outdoors	Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10d	Jackhammers and handheld powered chipping tools when used indoors or in an enclosed area	Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
		greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.		
11	Handheld grinders for mortar removal (i.e., tuckpointing)	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	Powered Air-Purifying Respirator (PAPR) with P100 Filters
12a	Handheld grinders for uses other than mortar removal for tasks performed outdoors only	Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
12b	Handheld grinders for uses other than mortar removal when used outdoors	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	None	None
12c	Handheld grinders for uses other than mortar removal when used indoors or in an enclosed area	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
		Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.		
13a	Walk-behind milling machines and floor grinders	Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
13b	Walk-behind milling machines and floor grinders	Use machine equipped with dust collection system recommended by the manufacturer. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.	None	None
14	Small drivable milling machines (less than half-lane)	Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None	None
15a	Large drivable milling machines (half-lane and larger) for cuts of any depth on asphalt only	Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions.	None	None
15b	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions.	None	None

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
15c	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None	None
16	Crushing machines	Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points). Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote-control station.	None	None
17a	Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	Operate equipment from within an enclosed cab.	None	None
17b	Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.	None	None

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
18a	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	Apply water and/or dust suppressants as necessary to minimize dust emissions.	None	None
18b	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None	None

When implementing the control measures specified in Table 1, RANGELINE GROUP shall:

- For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust;
- For tasks performed using wet methods, apply water at flow rates sufficient to minimize release of visible dust;
- For measures implemented that include an enclosed cab or booth, ensure that the enclosed cab or booth:
    - Is maintained as free as practicable from settled dust;
    - Has door seals and closing mechanisms that work properly;

- Has gaskets and seals that are in good condition and working properly;
- Is under positive pressure maintained through continuous delivery of fresh air;
- Has intake air that is filtered through a filter that is 95% efficient in the 0.3-10.0 µm range (e.g., MERV-16 or better); and
- Has heating and cooling capabilities.

- Where an employee performs more than one task included on OSHA's Construction Standard Table 1 during the course of a shift, and the total duration of all tasks combined is more than four hours, the required respiratory protection for each task is the respiratory protection specified for more than four hours per shift. If the total duration of all tasks on Table 1 combined is less than four hours, the required respiratory protection for each task is the respiratory protection specified for less than four hours per shift.

Alternative Exposure Control Methods

Alternative Exposure Control Methods apply for tasks not listed in OSHA's Construction Standard Table 1, or where RANGELINE GROUP cannot not fully and properly implement the engineering controls, work practices, and respiratory protection described in Table 1.

First, RANGELINE GROUP will assess the exposure of each employee who is or may reasonably be expected to be exposed to Respirable Crystalline Silica at or above the Action Level in accordance with either the Performance Option or the Scheduled Monitoring Option.

Performance Option – RANGELINE GROUP will assess the 8-hour TWA exposure for each employee on the basis of any combination of air monitoring data or objective data sufficient to accurately characterize employee exposures to Respirable Crystalline Silica.

Scheduled Monitoring Option:

- RANGELINE GROUP will perform initial monitoring to assess the 8-hour TWA exposure for each employee on the basis of one or more personal breathing zone air samples that reflect the exposures of employees on each shift, for each job classification, and in each work area. Where several employees perform the same tasks on the same shift and in the same work area, RANGELINE GROUP will plan to monitor a representative fraction of these employees. When using representative monitoring, RANGELINE GROUP will sample the employee(s) who are expected to have the highest exposure to Respirable Crystalline Silica.
- If initial monitoring indicates that employee exposures are below the Action Level, RANGELINE GROUP will probably discontinue monitoring for those employees whose exposures are represented by such monitoring.

- Where the most recent exposure monitoring indicates that employee exposures are at or above the Action Level but at or below the PEL, RANGELINE GROUP will repeat such monitoring within six months of the most recent monitoring.

- Where the most recent exposure monitoring indicates that employee exposures are above the PEL, RANGELINE GROUP will repeat such monitoring within three months of the most recent monitoring.

- Where the most recent (non-initial) exposure monitoring indicates that employee exposures are below the Action Level, RANGELINE GROUP will repeat such monitoring within six months of the most recent monitoring until two consecutive measurements, taken seven or more days apart, are below the Action Level, at which time RANGELINE GROUP will probably discontinue monitoring for those employees whose exposures are represented by such monitoring, except when a reassessment is required. RANGELINE GROUP will reassess exposures whenever a change in the production, process, control equipment, personnel, or work practices may reasonably be expected to result in new or additional exposures at or above the Action Level, or when RANGELINE GROUP has any reason to believe that new or additional exposures at or above the Action Level have occurred.

RANGELINE GROUP will ensure that all Respirable Crystalline Silica samples taken to satisfy the monitoring requirements of this program and OSHA are collected by a qualified individual (i.e. a Certified Industrial Hygienist) and the samples are evaluated by a qualified laboratory (i.e. accredited to ANS/ISO/IEC Standard 17025:2005 with respect to Crystalline Silica analyses by a body that is compliant with ISO/IEC Standard 17011:2004 for implementation of quality assessment programs).

Within five working days after completing an exposure assessment, RANGELINE GROUP will individually notify each affected employee in writing of the results of that assessment or post the results in an appropriate location accessible to all affected employees.

Whenever an exposure assessment indicates that employee exposure is above the PEL, RANGELINE GROUP will describe in the written notification the corrective action being taken to reduce employee exposure to or below the PEL.

Where air monitoring is performed, RANGELINE GROUP will provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to Respirable Crystalline Silica. When observation of monitoring requires entry into an area where the use of protective clothing or equipment is required for any workplace hazard, RANGELINE GROUP will provide the observer with protective clothing and equipment at no cost and shall ensure that the observer uses such clothing and equipment.

Once air monitoring has been performed, RANGELINE GROUP will determine its method of compliance based on the monitoring data and the hierarchy of controls. RANGELINE GROUP will use engineering and work practice controls to reduce and maintain employee exposure to Respirable Crystalline Silica to or below the PEL, unless RANGELINE GROUP can demonstrate that such controls are not feasible. Wherever

such feasible engineering and work practice controls are not sufficient to reduce employee exposure to or below the PEL, RANGELINE GROUP will nonetheless use them to reduce employee exposure to the lowest feasible level and shall supplement them with the use of respiratory protection.

In addition to the requirements of this program, RANGELINE GROUP will comply with other programs and OSHA standards (such as 29 CFR 1926.57 [Ventilation]), when applicable where abrasive blasting is conducted using Crystalline Silica-containing blasting agents, or where abrasive blasting is conducted on substrates that contain Crystalline Silica.

Control Methods

RANGELINE GROUP will provide control methods that are either consistent with Table 1 or otherwise minimize worker exposures to Silica. These exposure control methods can include engineering controls, work practices, and respiratory protection. Listed below are control methods to be used when Table 1 is not followed:

List and discuss control methods

Respiratory Protection

Where respiratory protection is required by this program, RANGELINE GROUP will provide each employee an appropriate respirator that complies with the requirements of the company's Respiratory Protection Program and the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Respiratory protection is required where specified by the OSHA Construction Standard Table 1, for tasks not listed in Table 1, or where the company has not fully and properly implemented the engineering controls, work practices, and respiratory protection described in Table 1. Situations requiring respiratory protection include:

- Where exposures exceed the PEL during periods necessary to install or implement feasible engineering and work practice controls;
- Where exposures exceed the PEL during tasks, such as certain maintenance and repair tasks, for which engineering, and work practice controls are not feasible; and
- During tasks for which an employer has implemented all feasible engineering and work practice controls and such controls are not sufficient to reduce exposures to or below the PEL.

Housekeeping

RANGELINE GROUP does not allow dry sweeping or dry brushing where such activity could contribute to employee exposure to Respirable Crystalline Silica unless wet sweeping, HEPA-filtered vacuuming, or other methods that minimize the likelihood of exposure are not feasible.

RANGELINE GROUP does not allow compressed air to be used to clean clothing or surfaces where such activity could contribute to employee exposure to Respirable Crystalline Silica unless:

- The compressed air is used in conjunction with a ventilation system that effectively captures the dust cloud created by the compressed air; or
- No alternative method is feasible.

Written Exposure Control Plan

When employee exposure on a construction project is expected to be at or above the Action Level, a Written Exposure Control Plan (ECP) will be established and implemented. This ECP will contain at least the following elements:

- A description of the tasks in the workplace that involve exposure to Respirable Crystalline Silica;
- A description of the engineering controls, work practices, and respiratory protection used to limit employee exposure to Respirable Crystalline Silica for each task;
- A description of the housekeeping measures used to limit employee exposure to Respirable Crystalline Silica; and
- A description of the procedures used to restrict access to work areas, when necessary, to minimize the number of employees exposed to Respirable Crystalline Silica and their level of exposure, including exposures generated by other employers or sole proprietors.

The written ECP will designate a Competent Person to make frequent and regular inspections of job sites, materials, and equipment to ensure the ECP is implemented.

The written ECP will be reviewed at least annually to evaluate the effectiveness of it and update it as necessary. Having said this, ECP's are project specific and most project durations do not exceed a year. The written ECP will be readily available for examination and copying, upon request, to each employee covered by this program and/or ECP, their designated representatives, and OSHA.

Medical Surveillance

Medical surveillance will be made available for each employee who will be required to use a respirator for 30 or more days per year due to their Respirable Crystalline Silica exposure. Medical surveillance (i.e. medical examinations and procedures) will be performed by a PLHCP (Physician or other Licensed Health Care Professional) and provided at no cost to the employee at a reasonable time and place.

RANGELINE GROUP will make available an initial (baseline) medical examination within 30 days after initial assignment, unless the employee has received a medical

examination that meets the requirements of the OSHA Respirable Crystalline Silica Construction Standard within the last three years. The examination shall consist of:

- A medical and work history, with emphasis on past, present, and anticipated exposure to Respirable Crystalline Silica, dust, and other agents affecting the respiratory system in addition to any history of respiratory system dysfunction, including signs and symptoms of respiratory disease (e.g., shortness of breath, cough, wheezing), history of tuberculosis, and smoking status and history;

- A physical examination with special emphasis on the respiratory system;

- A chest X-ray (a single postero-anterior radiographic projection or radiograph of the chest at full inspiration recorded on either film [no less than 14 x 17 inches and no more than 16 x 17 inches] or digital radiography systems) interpreted and classified according to the International Labor Office (ILO) International Classification of Radiographs of Pneumoconiosis by a NIOSH-certified B Reader;

- A pulmonary function test to include forced vital capacity (FVC) and forced expiratory volume in one second (FEV1) and FEV1/FVC ratio, administered by a spirometry technician with a current certificate from a NIOSH-approved spirometry course;

- Testing for latent tuberculosis infection; and

- Any other tests deemed appropriate by the PLHCP.

RANGELINE GROUP will make available medical examinations that include the aforementioned procedures (except testing for latent tuberculosis infection) at least every three years. If recommended by the PLHCP, periodic examinations can be more frequently than every three years.

RANGELINE GROUP will ensure that the examining PLHCP has a copy of the OSHA Respirable Crystalline Silica Construction Standard, this program, and the following information:

- A description of the employee's former, current, and anticipated duties as they relate to the employee's occupational exposure to Respirable Crystalline Silica;

- The employee's former, current, and anticipated levels of occupational exposure to Respirable Crystalline Silica;

- A description of any personal protective equipment (PPE) used or to be used by the employee, including when and for how long the employee has used or will use that equipment; and

- Information from records of employment-related medical examinations previously provided to the employee and currently within the control of RANGELINE GROUP.

RANGELINE GROUP will ensure that the PLHCP explains to the employee the results of the medical examination and provides each employee with a written medical report within 30 days of each medical examination performed. The written report shall contain:

- A statement indicating the results of the medical examination, including any medical condition(s) that would place the employee at increased risk of material impairment to health from exposure to Respirable Crystalline Silica and any medical conditions that require further evaluation or treatment;

- Any recommended limitations on the employee's use of respirators;

- Any recommended limitations on the employee's exposure to Respirable Crystalline Silica; and;

- A statement that the employee should be examined by a Specialist if the chest X-ray is classified as 1/0 or higher by the B Reader, or if referral to a Specialist is otherwise deemed appropriate by the PLHCP.

RANGELINE GROUP will also obtain a written medical opinion from the PLHCP within 30 days of the medical examination. The written opinion shall contain only the following in order to protect the employee's privacy:

- The date of the examination;

- A statement that the examination has met the requirements of the OSHA Respirable Crystalline Silica Construction Standard; and

- Any recommended limitations on the employee's use of respirators.

If the employee provides written authorization, the written opinion shall also contain either or both of the following:

- Any recommended limitations on the employee's exposure to Respirable Crystalline Silica; and/or

- A statement that the employee should be examined by a Specialist if the chest X-ray is classified as 1/0 or higher by the B Reader, or if referral to a Specialist is otherwise deemed appropriate by the PLHCP.

If the PLHCP's written medical opinion indicates that an employee should be examined by a Specialist, RANGELINE GROUP will make available a medical examination by a Specialist within 30 days after receiving the PLHCP's written opinion. RANGELINE GROUP will ensure that the examining Specialist is provided with all of the information that the employer is obligated to provide to the PLHCP.

RANGELINE GROUP will ensure that the Specialist explains to the employee the results of the medical examination and provides each employee with a written medical report within 30 days of the examination. The written report will contain:

- A statement indicating the results of the medical examination, including any medical condition(s) that would place the employee at increased risk of material impairment to health from exposure to Respirable Crystalline Silica and any medical conditions that require further evaluation or treatment;

- Any recommended limitations on the employee's use of respirators; and

- Any recommended limitations on the employee's exposure to respirable crystalline Silica.

In addition, RANGELINE GROUP will obtain a written opinion from the Specialist within 30 days of the medical examination. The written opinion shall contain the following:

- The date of the examination;

- Any recommended limitations on the employee's use of respirators; and

- If the employee provides written authorization, the written opinion shall also contain any recommended limitations on the employee's exposure to Respirable Crystalline Silica.

Hazard Communication

RANGELINE GROUP will include Respirable Crystalline Silica in the company's Hazard Communication Program established to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200).

RANGELINE GROUP will ensure that each employee has access to labels on containers of Crystalline Silica and those containers respective Safety Data Sheets (SDS's).

All employees will be trained in accordance with the provisions of the OSHA Hazard Communication Standard and the Training Section of this program. This training will cover concerns relating to cancer, lung effects, immune system effects, and kidney effects.

RANGELINE GROUP will ensure that each employee with the potential to be exposed at or above the Action Level for Respirable Crystalline Silica can demonstrate knowledge and understanding of at least the following:

- The health hazards associated with exposure to Respirable Crystalline Silica;

- Specific tasks in the workplace that could result in exposure to Respirable Crystalline Silica;

- Specific measures RANGELINE GROUP has implemented to protect employees from exposure to Respirable Crystalline Silica, including engineering controls, work practices, and respirators to be used;

- The contents of the OSHA Respirable Crystalline Silica Construction Standard;
- The identity of the Competent Person designated by RANGELINE GROUP; and
- The purpose and a description of the company's Medical Surveillance Program.

RANGELINE GROUP will make a copy of the OSHA Respirable Crystalline Silica Construction Standard readily available without cost to any employee who requests it.

Recordkeeping

RANGELINE GROUP will make and maintain an accurate record of all exposure measurements taken to assess employee exposure to Respirable Crystalline Silica. This record will include at least the following information:

- The date of measurement for each sample taken;
- The task monitored;
- Sampling and analytical methods used;
- Number, duration, and results of samples taken;
- Identity of the laboratory that performed the analysis;
- Type of personal protective equipment (PPE), such as respirators, worn by the employees monitored; and
- Name, social security number, and job classification of all employees represented by the monitoring, indicating which employees were actually monitored.

RANGELINE GROUP will ensure that exposure records are maintained and made available in accordance with 29 CFR 1910.1020. Exposure records will be kept for at least 30 years.

The employer shall make and maintain an accurate record of all objective data relied upon to comply with the requirements of the OSHA Respirable Crystalline Silica Construction Standard. This record shall include at least the following information:

- The Crystalline Silica-containing material in question;
- The source of the objective data;
- The testing protocol and results of testing;
- A description of the process, task, or activity on which the objective data were based; and

- Other data relevant to the process, task, activity, material, or exposures on which the objective data were based.

RANGELINE GROUP will ensure that objective data are maintained and made available in accordance with 29 CFR 1910.1020. Objective data records will be kept for at least 30 years.

RANGELINE GROUP will make and maintain an accurate record for each employee enrolled in the Medical Surveillance portion of this program. The record shall include the following information about the employee:

- Name and social security number;
- A copy of the PLHCPs' and/or Specialists' written medical opinions; and
- A copy of the information provided to the PLHCPs and Specialists.

RANGELINE GROUP will ensure that medical records are maintained and made available in accordance with 29 CFR 1910.1020. Medical records will be kept under lock and key for at least the duration of employment plus 30 years. It is necessary to keep these records for extended periods because Silica-related diseases such as cancer often cannot be detected until several decades after exposure. However, if an employee works for an employer for less than one year, the employer does not have to keep the medical records after employment ends, as long as the employer gives those records to the employee.

6.0 PROGRAM EVALUATION

This program will be reviewed and evaluated on an annual basis by the Safety Department unless changes to operations, the OSHA Respirable Crystalline Silica Construction Standard (29 CFR 1926.1153), or another applicable OSHA Standard require an immediate re-validation of this program.

End Of Policy

ATTACHMENT Z

MANAGEMENT OF CHANGE

This Safety & Health Manual for Rangeline Group shall be reviewed at least annually and any changes or additions to this document shall be listed below:

	Change or Addition	Date
1.	Legal Reviewed	August 24th, 2024
2.	Edited section in Motor Vehicle Safety policy. Removed "skills testing" requirements.	May 15th, 2024.