



Environmental, Health and Safety (EHS) Program September 2023

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EHS Program Disclaimer

This document ("Environmental, Health and Safety (EHS) Program") is intended to serve as a reference for RALIN & ASSOCIATES, INC. DBA RALIN employees and trades/trade workers regarding RALIN policies and regulatory guidance as it pertains to the many working conditions and scopes of work typically experienced on RALIN projects.

RALIN acknowledges that some conditions and/or tasks exists where workers may need to personally interpret safe work behaviors specific to the condition(s) encountered that documented rules and regulations do not address specifically and/or by reference. RALIN's training program will continue to meet and exceed regulatory requirements to minimize any ambiguity in safe work behaviors and to establish informed safe workers on every project.

Furthermore, RALIN declares:

- That leadership expects employees to practice safe work behaviors;
- That all workers (RALIN or trade workers) shall stop work in accordance with RALIN's "Stop Work" policy;
- That all workers shall plan and practice the safest methods when tasks do not fit a recognized safety rule or policy; and
- That all workers shall make appropriate safe choices regardless of project goals.

President's Message



June 14, 2016

To Whom It May Concern:

At RA-LIN and Associates, Inc., safety commitment begins with management's pledge to protect our employees and partners by providing safe workplaces. The protection of our workers and the public is imperative. Safety in all operations is not just a company goal; it is a value here at RA-LIN.

Adhering to our company and client-specific safety policies, rules, regulations, instructions and procedures is a condition of employment at RA-LIN.

Protecting our RA-LIN family is the most crucial part of our day. In order to protect our family, safety is part of every endeavor during our daily life of work, play and pray.

Safe work makes safe families.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Garrett". The signature is written in a cursive, flowing style.

Ben Garrett
President



Section 1 - INTRODUCTION

1.1 Introduction to Safety Program

Safety is not negotiable on a RALIN project, it is an imperative.

RALIN recognizes the responsibility to provide a safe working environment free from all recognized hazards. RALIN strives for continuous improvement in all facets of this program. RALIN will comply with all local, state, and federal requirements. Some examples of regulatory agencies applicable to RALIN efforts are the Occupational Safety and Health Administration (OSHA), Mine Safety and Health Administration (MSHA) and the Department of Transportation (DOT). Safety is paramount for anyone exposed to RALIN efforts.

On jobsites, the site superintendent functions as the primary point of contact and authority providing a safe work environment. The site superintendent is responsible for maintaining and enforcing safety compliance by all trades and all employees.

All employees and trades are required to attend weekly safety meetings in which safety precautions and governing regulations (e.g., OSHA, MSHA, etc.) are discussed. The site superintendent and foremen are responsible for monitoring the jobsite for safety compliance, identifying potential safety hazards, and controlling hazards via elimination (through design or otherwise), engineering controls, administrative controls and/or personal protective equipment (PPE).

RALIN's Safety Manual is subject to continuous improvement in order to promote a safety culture via the RALIN Safety Program. The intent of the RALIN Safety Manual is to present general and basic guidance for those practices that are known to be of value to provide a safe workplace and an outline for the responsibilities of key personnel in an ongoing safety program.

1.2 Policy Statement

It is the policy of RALIN to provide a safe and healthy working environment for all employees. We achieve this mission by hiring the best employees, and by constantly striving to improve our work environment. Safety is paramount. Achieving the mission of safety is a job of continual improvement and attention to detail by employees of RALIN.

The effective date of this Environmental, Health and Safety (EHS) Program is the first day of the month reflected in the footer of this page. The next review and update of the EHS Program will occur no later than one year from the effective date.



Section 2 - STOP WORK

2.1 Purpose

The purpose of the following section is to establish a “Stop Work” policy within RALIN’s EHS Program.

ALL employees are responsible for initiating a “Stop Work” action when warranted and management is responsible to create a culture where Stop Work Authority is exercised freely.

2.2 Goal

The goal of RALIN’s “Stop Work” policy is to establish:

1. Define “Stop Work”;
2. Personnel authorized to stop work;
3. Stop work authority process;
4. Resuming work;
5. Documentation and Evaluation of “Stop Work” actions; and
6. Training requirements.

2.3 Policy

2.3.1 Definition of Stop Work

“Stop Work” means any action that stops or halts all affected employees from continuing to a task or operation immediately with no further progress expected until proper steps are completed.

2.3.2 Authority to Stop Work

All workers on any RALIN managed project, work site or location have the authority and obligation to stop any task or operation where concerns or questions regarding the control of Environmental, Health and Safety risk exist.

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

2.3.3 Process for Stopping Work

Work is expected to be stopped at any moment in accordance with the following steps when any unsafe condition exists:

1. An unsafe condition is identified.
2. All personnel potentially affected by unsafe conditions will be notified (verbally, visually, or audibly) to cease working.
3. The employee stopping work will then notify the onsite supervisor overseeing their own current duties onsite immediately and in a positive manner. This must be a supervisor physically on site in order to notify the appropriate onsite management.

2.3.4 Continuing Work after Stopping Work

Work is expected to resume after stopping work only after the following steps have been completed:



1. The condition has been evaluated by the affected personnel (and their supervision) to establish the safest method to proceed.
2. All personnel potentially affected by unsafe conditions will be informed of the means, methods and expectations to continue work processes.
3. All unsafe conditions have been addressed and corrected.
4. All personnel affected by the “stop work” action will be notified to continue working.

2.3.5 Required Documentation

All stop work actions shall be documented to establish lessons learned and corrective actions utilized to resolve the unsafe condition(s).

Documentation may include daily logbooks, e-mails, texts, pictures, meeting minutes, etc.

Stop Work documentation shall be reviewed by a supervisor or manager in order to:

- Measure participation,
- Determine the quality of stop work actions,
- Follow up on residual or additional issues (*see “after action review” below*),
- Identify trends or commonalities,
- Identify opportunities for improvement, and
- Facilitate company-wide information sharing of lessons learned.

2.3.6 After Action Review

Occasionally after a stop work action has been completed to the satisfaction of all involved persons, additional investigation and/or corrective actions may be required to identify and address root causes.

2.3.7 Training

Employees must receive Stop Work Authority training before initial assignment. The training must be documented including the employee name, the dates of training and subject.



Section 3 - GOALS & RESPONSIBILITIES

3.1 Purpose

The purpose of the following section is to document the goals and responsibilities as required through RALIN's Environmental Health and Safety Program.

3.2 Goal

The goals of RALIN's Environmental Health and Safety Program follow:

1. Provide all employees with the training and education necessary to achieve excellent safety performance.
2. Strive for zero injuries.
3. Strive for zero lost time events.
4. Strive for zero OSHA or other regulatory deficiencies / violations.
5. Commit to all necessary training, equipment, and resources to achieve these goals.

3.3 Policy

3.3.1 Roles and Responsibility

3.3.1.1 Company Safety Committee Responsibilities

1. Provide oversight of current and consistent Environmental Health and Safety Program exclusive of RALIN safety personnel. Track trends and develop policies and procedures to eliminate all jobsite injuries.
2. Bring recommendations and findings to the safety department for a "check and balance" of the safety department and to establish accountability from the safety personnel.
3. Provide jobsites with up-to-date information regarding governmental safety and inspection policies.
4. The Safety Committee shall meet regularly.
5. The Safety Committee members shall be made up of the following positions. Members are selected for one-year terms. A portion of the members will be rotated on to the committee each year.

• Director of Support Services*	1
• Corporate Safety Manager	1
• Warranty Director	1
• Project Management	1
• Field Supervision / Superintendent	1

* Indicates a position that is a permanent Safety Committee member.



3.3.1.2 Safety Manager Responsibilities

1. Provide a safe environment for any person affected by RALIN business and operations.
2. Ensure compliance with all applicable federal, state, and local safety requirements.
3. Provide technical assistance, resources, and safety training as required.
4. Perform periodic safety inspections of all jobsites.
5. Give feedback to supervisors and senior management regarding safety performance of the projects.
6. Report safety statistics to management and field personnel.
7. Conduct regularly scheduled jobsite audits to determine the effectiveness of RALIN's Safety Program.
8. Distribute safety related information, publications, and reports.
9. Ensure all Substance Abuse Policies are adhered to, at all times.
10. Ensure weekly safety training sessions are conducted and documented with sign-in sheets.
11. Maintain all safety records and training records.
12. Manage the investigation of all jobsite injuries and events as required.
13. Ensure quarterly jobsite safety reports are completed each quarter.
14. Track and analyze events/injuries to determine trends and recommend actions to prevent future occurrences.
15. Notify OSHA of all work-related inpatient hospitalizations, all amputations and all losses of an eye within twenty-four
16. (24) hours of the event.
17. Notify OSHA of workplace fatality or fatalities occurring within 30 days of the work-related incident within eight (8) hours of the event.
18. Assist superintendent in completing Supervisor's Report of Event, First Report (state specific) of Injury Form, and any other Workmen's Compensation reporting.
19. Notify insurance carrier of injury or event within (24) hours of the event.
20. Serve as the liaison between RALIN and its insurance carrier and agent regarding the company's safety matters.
21. Coordinate safety inspections by insurance carrier, and independent third parties, and/or regulators.
22. Maintain OSHA Form 300 records for OSHA regulated projects and programs.
23. Report quarterly information for active MSHA regulated projects and programs.

3.3.1.3 Superintendent Responsibilities

1. Be responsible for overall jobsite safety (Person "in-charge"/ competent person of safety) on all RALIN jobsites.
2. Manage confined space plan and work for the sites that they manage.
3. Be familiar with codes and laws pertaining to safety and basic requirements of operating a safe jobsite.
4. Be currently trained in first aid, CPR and bloodborne pathogens.
5. Develop and document a proactive safety plan prior to start of work.
6. Ensure that all new employees read and sign a Safety Orientation Package and that they completely fill out the employee application and all other pre-employment information and documentation PRIOR to start of work.



7. Establish site specific emergency action plan.
8. Make available all necessary personnel protective equipment, jobsite safety information, and first aid equipment.
9. Furnish each supervisor with a copy of this Safety Program, as required.
10. Instruct and document that all supervisors, foremen, trades, vendors, etc. have been briefed of all safe practices to be followed and safe conditions to be maintained throughout the job, at all times.
11. Inform the supervisors, foremen, trades, vendors, etc. that they are to instruct the employees in proper and safe work habits and procedures.
12. Instruct and document that all supervisors, foremen, trades, vendors, etc. have been briefed regarding their safety responsibilities.
13. Require all trades, as well as subs of those subs, to adhere to all safety rules and regulations at all times on RALIN jobsites.
14. Investigate all events, interview witnesses, file required reports, and see that corrective action(s) are taken promptly.
15. If there is a reasonable suspicion that unlawful drug use may have been a factor in an injury or accident, then ensure that substance abuse testing is performed within 24 hours of the event.
16. Have copies of current regulating agencies rules and regulations available at jobsite office or internet access to regulator information (e.g., OSHA.gov and MSHA.gov).
17. Have a copy of this Environmental Health and Safety (EHS) Program available on the jobsite (hard copy or via the internet).
18. Perform and document safety inspections **DAILY** (form RSF-0330) and **WEEKLY** (form RSF-0320). Complete inspection reports and keep on file at the jobsite for review by management, safety personnel or regulators.
19. Ensure 1st Aid Kit weekly inspection is performed and documented on a First Aid Kit Inspection form RSF-0020 and supplies are replenished as required.
20. Report all events (e.g., near miss, injuries, etc.) to the Safety Manager / main office within 1 hour of the event and be responsible for completing all event reports required by the company and any governmental agency. All reports are to be submitted to the safety@ralinconstruction.com.
21. Record all project 1st Aid events on RSF-0010 (First Aid Cases Form).
22. File report with company Safety Committee following all regulator inspections, stating reasons for citation, if any, circumstances surrounding violations, and corrective action taken to ensure future adherence to regulatory requirements.
23. Conduct weekly jobsite safety Toolbox meetings, stressing safety precautions, company safety rules, regulator rules and regulations, and hazard communication. Meetings will be documented by requiring all attendees to sign-in using a Safety Training Attendance Roster (form RSF-1030). Topics should be in accordance with the Weekly Safety Topics designated in form RSF-1100.
24. Ensure the RALIN Substance Abuse and Drug / Alcohol Testing Policy is enforced on the jobsite.
25. Ensure proper monthly and annual inspections are being performed and documented on all onsite project fire extinguishers.
26. Ensure that the Hazard Communication Safety Program is implemented, maintained, and enforced on the jobsite. Also, assure all applicable safety data sheets (SDS) are always accessible during on-site work and that all site personnel are aware of their location.
27. Ensure that a job safety analysis (JSA) is performed and documented prior to starting tasks that have yet to be executed on each specific job site. This will include all site-specific personnel expected to perform the new scope of work: RALIN field employees and trades.



28. Ensure that a JSA is performed and documented each week for the highest perceived risk on the job (e.g. steel trade's falls, etc.).
29. Ensure weekly mobilization log is being maintained and submitted to corporate office (to safety@ralinconstruction.com).
30. Ensure NO employee of ANY contractor, trade and/or vendor works on a RALIN jobsite at any time, without a RALIN management representative onsite. Management is defined as a RALIN employee having completed a minimum of OSHA 10.

NOTE: Temporary off jobsite activities less than one hour are acceptable.

If more than one hour is required, then a replacement representative shall be appointed temporarily.

31. Ensure that any required safety supplies, items, and/or gear is procured prior to work being performed.
32. Ensure all identified safety hazards are abated prior to any further work being performed.
33. Ensure that all personnel (RALIN and sub-contracted) are properly trained regarding safety practices and methods for the work duties assigned.

3.3.1.4 Foreman Responsibilities

1. Be familiar with codes and laws pertaining to safety and basic requirements of operating a safe jobsite.
2. Make available upon request a copy of this Safety Program to all workers for their review.
3. Ensure that the entire Safety Program is implemented and enforced.
4. Ensure the workers perform no unsafe practices.
5. Ensure no unsafe conditions exist.
6. Ensure necessary protective equipment is available and used.
7. Instruct all workers in safe procedures and job safety requirements. Always follow up and demand compliance.
8. Discuss specific safety procedures with the workers, for the specific task, activity or operation.
9. See that all injuries are treated properly and reported promptly.
10. Assist the superintendent with all event investigations and corrective action.
11. Take immediate action to correct any unsafe conditions reported by workers.
12. Report any violations and/or possible violations of the Substance Abuse and Drug / Alcohol Testing Policy to the superintendent promptly.
13. Ensure that any required safety supplies, items, and/or gear is procured prior to work being performed.
14. Ensure all identified safety hazards are abated prior to any further work being performed.

3.3.1.5 Project Manager Responsibilities

1. Review all event reports with superintendent and/or trade's representative. Conduct further investigation if necessary.
2. Perform the initial jobsite safety survey.
3. Periodically inspect jobsite for unsafe conditions, with particular emphasis on compliance with state and federal OSHA regulations and company safety rules.
4. Coordinate outside and/or insurance carrier jobsite safety inspections.



5. Obtain and review all trades Safety Programs, Substance Abuse Policies, and an indexed safety data sheet (SDS) notebook for compliance with the RALIN Safety Program.
6. Develop and maintain all SDS information for materials and/or chemicals used by RALIN and all trades onsite.
7. Assist the superintendent in the development of a proactive jobsite safety plan before the start of work.
8. Ensure that the RALIN Substance Abuse and Drug / Alcohol Testing Policy is always enforced onsite.
9. Ensure that all jobsite reporting, including regulatory and Workmen's Compensation reporting, is being correctly completed and maintained.
10. Ensure that jobsite confined space plan is being properly executed.
11. Ensure that all jobsite signage is current and properly maintained, including all required postings. See Jobsite StartUp for additional information.
12. Ensure that the most current policies and procedures are being utilized.
13. Provide the "public" protection from all company operations, always.
14. Ensure OSHA 300 Form posting requirements are maintained and current.
15. Ensure ALL bids, prices, estimates, proposals, etc. include all requirements of the RALIN Safety Program.
16. Track and evaluate "Mod-Rate" for Company and all trades onsite.
17. Complete Quarterly Jobsite Safety Report once per quarter, four times a year.
18. Ensure workers compensation laws are adhered to per each state's law.
19. Ensure that any required safety supplies, items, and/or gear is procured prior to work being performed.
20. Ensure all identified safety hazards are abated prior to any further work being performed.

3.3.1.6 Human Resources Responsibilities

1. Maintain all signed policies and procedures and training records within RALIN's hourly employee's personnel file.
2. Ensure the confidentiality of all drug test information.
3. Ensure that all employees have met the requirements of RALIN Substance Abuse and Drug / Alcohol Testing Policy prior to starting work.
4. Obtain and review Motor Vehicle Reports (MVR) for all personnel operating company vehicles and/or personal vehicles for business activities.

3.3.1.7 EVERYONE's Responsibilities

1. ALL employees are responsible for initiating a "Stop Work" action when warranted and management is responsible to create a culture where Stop Work Authority is exercised freely.
2. Adhere to and enforce RALIN's Environmental, Health and Safety (EHS) Program.
3. Work according to good safety practices as posted, instructed, and discussed.
4. Refrain from any unsafe act that might endanger yourself or other employees.
5. Request training that will allow you to perform your job safely by contacting the safety manager via phone or e-mail: safety@ralinconstruction.com.
6. Attend training in accordance with this RALIN EHS Program, Training Section.
7. Use all personal protective equipment provided for safety.



8. Report any and all unsafe conditions, situations and/or acts to the supervisor or company safety representative promptly.
9. Be a safe worker off the job as well as on the job.
10. Report any and all injuries to supervisor within 1 hour of the event.
11. Report any and all substance abuse violations to supervisor promptly.
12. Recommend any improvements for safety to the safety manager.
13. Attend and participate in all company safety training sessions and/or safety functions.
14. All hourly employees are required to sign an End of the Week Injury Statement. This statement is signed for event tracking purposes.
15. Ensure that any required safety supplies, items, and/or gear is procured prior to work being performed.
16. Ensure all identified safety hazards are abated prior to any further work being performed.



Section 4 - DISCIPLINARY PROGRAM

4.1 Purpose

The purpose of the following section is to document the process and expectations for discipline as it relates to the enforcement of RALIN's Environmental Health and Safety Program policies.

RALIN expects safe work behavior and practices from all parties involved with RALIN projects.

4.2 Goals

The goal of the following section is to administer consistent discipline and thereby re-enforcing RALIN's Environmental Health and Safety Program policies, rules, and regulatory requirements.

4.3 Policy

4.3.1 Accountability

No phase of our operations is of greater importance than safety. We all must be aware of both company and client safety goals. We must also ensure that proper planning allows for safe work practices to be used. Every RALIN employee shall be held accountable for his or her safety performance. This accountability will be reflected as a part of their overall evaluation for retention, promotions, salary increases, and bonuses.

4.3.2 Safety Enforcement Procedures for RALIN Employees

Commitment to the safety of our employees is foremost in the development of RALIN's Environmental, Health and Safety (EHS) Program. Each employee's commitment is required. A disciplinary policy is included in this program and will be enforced at all company workplaces.

All reprimands will include retraining appropriate to the safety issue in question. This retraining will be documented with the following key information included and copy stored in the employee's personnel file (in the human resource office):

- Supervisor's name and title that provides the retraining;
- Date of retraining;
- Subject of retraining;
- Topics covered within the above subject;
- Regulatory references; and
- Sign-In Sheet

When it is necessary, site management will issue a reprimand as soon as an infraction has been observed. The reprimand serves to:

- Allow employees to change unsafe work practices.
- Document an infraction that will go in an employee's personnel file.
- Guarantee that employees are warned of rule infractions prior to further disciplinary action being taken.



It would be appropriate to issue a reprimand for the following reasons:

- Failure to wear proper protective equipment.
- Willfully endangering one's life or the lives of other employees; this is gross misconduct and can be cause for immediate dismissal.
- Performing work in an unsafe manner.

The severity of the discipline will be determined by the extent of the exposure to the employee in question, other employees, and the company. If an employee is the likely cause of an event, or if the violation had a high probability of resulting in an event, the employee may be terminated. If the circumstances had a moderate probability of causing an event, time off without pay may result. If the circumstances had a low probability of causing an event, the superintendent should personally advise the employee that three written reprimands for safety violations will result in immediate termination.

Written reprimands will be documented on the Employee Discipline Notice form.

4.3.3 Safety Enforcement Procedures for Trades

It is recommended that trades establish and maintain a documented company specific safety and health programs in addition to complying with RALIN requirements.

All infractions/ reprimands will include removal from the site for 24 hours (or longer) or retraining appropriate to the safety issue in question. This *retraining will be documented with the following key information included and digital copy provided to RALIN's Safety Department via safety@ralinconstruction.com:

- Company name;
- Name and title of trainer that provides the retraining;
- Date of retraining;
- Subject of retraining;
- Topics covered within the above subject;
- Regulatory references; and
- Sign-In Sheet

When it is necessary to warn a trade of an infraction of safety rules, a warning must be issued by the project superintendent using the RALIN Safety Citation. A copy of the warning notice must be given to the trade's supervisors, a copy sent to the trade's office, and a copy maintained at the jobsite.

For repeat or egregious safety practices or conditions caused by an identifiable trade, a RALIN request for abatement will be issued via e-mail or US Mail and all payment obligations from RALIN to the trades (and all lower tier associated trades) will be held until the following requirements are fulfilled by the trade through an abatement letter (on company letter head) signed hard copy by the owner or executive or senior company officer and notarized documenting the following:

- Acknowledgement of the safety condition or issue;
- Explanation of what discipline occurred as a result of the safety condition or issue;
- Explanation of how the issue will be avoided from this point forward on any RALIN project;
- Documented training* and attendance covering the safety concern(s) conveyed by RALIN's project management or safety representatives; and



- Letter and supporting documentation submitted to RALIN via e-mail and US Mail or hand delivered.

Once the letter and documents are received by RALIN Corporate Safety Manager, an evaluation and notification will be performed within 5 business days.

After evaluation, a phone and e-mail notification to the trade will follow to update the trade of the acceptance or rejection status of the abatement actions and any payment holds.

* Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.



Section 5 - EMERGENCY PREPAREDNESS

For every RALIN facility (or site) and at the beginning of each project, management (office or site) will determine the location of appropriate medical providers with input from the company insurance carrier. A call to each provider to verify these providers can process worker's compensation claims and administer drug and alcohol screenings is required as well. Telephone numbers for medical providers and other emergency services must be maintained on the jobsite.

All trained/certified personnel should render first aid and CPR, if qualified, until medical emergency personnel take over treatment. Gloves and mouthpieces should be available in the first aid kit and used when First Aid/CPR is administered.

Personnel who are trained in First Aid/CPR may potentially be exposed to bloodborne pathogens if a serious event occurs. Every project should have at least one bloodborne pathogen kit. A bloodborne pathogen kit is available (at no cost) from RALIN's safety department. Although the risk of exposure is low, in the event our personnel administer First Aid/CPR, they are to treat all bodily fluids as infectious. Employees who have occupational exposure to blood will be provided (at no cost) a medical evaluation.

The Emergency Action Plan is to be developed and reviewed prior to work beginning. Management (office or site) will develop and review the plan with all new employees, when duties change, in staff or weekly safety meetings, and when the plan is revised.

All personnel must know where the nearest emergency medical provider is (as it relates to the facility or site) and how to travel there in the event of an emergency.

All resources will be made available to respond to an emergency. Management (office or site) will ensure that all employees understand what their roles are and what to do in the event an emergency occurs.

Management (office or site) will determine the appropriate emergency phone numbers for fire, ambulance and/or police at the assigned project. He/she will also determine the evacuation routes and assembly points.

The first person aware of an event (and able to do so) will contact emergency medical services, fire and/or police. For all projects, a previous planned alarm (e.g., crane horn, air horn or other devices) will be used to notify RALIN employees and trade employees of an emergency. The following audible alarms are recommended:

ALARMS

1 Continuous Blast	Continuous audible horn (or blast) signifies emergency help is needed near source of audible alarm immediately
3 Short Blasts - Repeated	Repeated series of 3 short audible blasts [3 quick honks and one (1) second off] with a 2-3 second pause between 3 blasts signifies emergency evacuation, notify nearby employees and report to established assembly area

5.1 Emergency Action Plan (EAP)

An emergency action plan must be in writing, kept in the workplace, and available to employees for review. However, an employer with 10 or fewer employees may communicate the plan orally to employees.



Minimum Elements of an EAP

An emergency action plan must include at a minimum:

- Procedures for reporting a fire or other emergency;
- Procedures for emergency evacuation, including type of evacuation and exit route assignments;
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate;
- Procedures to account for all employees after evacuation;
- Procedures to be followed by employees performing rescue or medical duties; and
- The name or job title of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan.

Employee Alarm System

RALIN facilities or projects must have and maintain an employee alarm system. The employee alarm system must use a distinctive signal for each purpose and comply with the requirements in 2 CFR 1910.165.

Training

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

Review of EAP

An employer must review the emergency action plan with each employee covered by the plan:

- When the plan is developed, or the employee is assigned initially to a job;
- When the employee's responsibilities under the plan change; and
- When the plan is changed.

The site superintendent shall establish (with assistance from RALIN safety personnel) the site-specific emergency action plan (EAP) for conditions such as:

- Severe Weather;
- Injuries;
- Fatalities;
- Fires;
- Explosions;
- Collapse;
- Gas Release;
- Hazardous Material Exposures; and
- Violence in the workplace, Etc.

These procedures should be developed in conjunction with the local police, local fire and local rescue authorities. All site management personnel should be trained and/or educated on their role during emergency procedures.

In the event of any emergency, notify your supervisor as soon as possible and then the corporate safety manager.



Public statements shall only be made by a RALIN representative designated by the RALIN president at the time of the event.

5.2 Emergency Evacuation Procedures

Fire, Explosion, Gas Release

Alerts:

In the event of an emergency, employees are alerted by:

- 1 Continuous Blast - Continuous audible horn (or blast) signifies emergency help is needed near source of audible alarm immediately
- 3 Short Blasts - Repeated series of 3 short audible blasts [3 quick honks and one (1) second off] with a 2-3 second pause between 3 blasts signifies emergency evacuation, notify nearby employees and report to established assembly area.

Policy:

In the event of fire or other emergency, ALL employees shall evacuate immediately.

Routes:

In the event of an emergency, employees shall evacuate by means of the *nearest* available marked exit.

Please note the posted building route maps posted on the premises.

Extinguishers:

Portable fire extinguishers are provided in the workplace for employee use. In the event of fire, any employee may use extinguishers to attempt to extinguish the fire before evacuating.

Duties:

No employees are assigned to perform medical or rescue duties during emergency evacuation situations

Assembly:

After an emergency evacuation, employees are to gather at the flagpole **Accounting:**

After an emergency evacuation, the procedure for accounting for all employees is:

Account for what cars are in the parking lot, then account for the owners of the cars.

Tornado

Alerts:

In the event of an emergency, employees are alerted by:

- 1 Continuous Blast - Continuous audible horn (or blast) signifies emergency help is needed near source of audible alarm immediately
- 3 Short Blasts - Repeated series of 3 short audible blasts [3 quick honks and one (1) second off] with a 2-3 second pause between 3 blasts signifies emergency evacuation, notify nearby employees and report to established assembly area **Policy:**

In the event of a tornado all employees should report to a ground level interior hallway with no windows.

Also use a book or a sturdy object to shield the head and face area.

Duties:

Each employee should ensure that everyone around their work area has been notified to seek shelter.



Accounting:

Account for what cars are in the parking lot, then account for the owners of the cars.

Workplace Violence

What should an employee do during a workplace violence event?

- Call 911 as soon as possible.
- Leave the danger zone if possible.
- If leaving the danger zone is not a viable option, then hiding may be necessary. Hide in the best manner available:
 - Within COVER – Hide behind or within something that provides cover. Cover is something substantial enough to either stop or drastically reduce the velocity of flying bullets, fragments, and/or debris and that is otherwise safe (i.e. enough breathable air).
 - Within CONCEALMENT – If cover is not available, then seek concealment. Concealment is a condition where hiding your presence is the objective.
 - If a hiding spot is within a space that has access restricted by doors, attempt to secure the door with lock and/or barricading with a large quantity of objects/furnishings (heavy and hard to move is preferred).
 - Do not leave until emergency responders contact you or an opportunity presents itself to safely evacuate.
- Notify management.

What should employers do following an event of workplace violence?

- Encourage employees to report and log all incidents, threats, and potential insinuations of workplace violence.
- Provide prompt medical evaluation and treatment after the event.
- Report violent events to the local authorities promptly.
- Inform victims of their legal right to prosecute perpetrators.
- Discuss the circumstances of the event with staff members. Encourage employees to share information about ways to avoid similar situations in the future.
- Offer stress debriefing sessions and post-traumatic counseling services to help workers recover from a violent event.
- Investigate all violent events and threats, monitor trends in violent events by type or circumstance, and institute corrective actions.
- Discuss changes in the program during regular employee meetings.

5.3 Emergency Notification Plan

After eliminating immediate threats, providing first aid, notifying emergency services (via 911) and attending to the medical needs of any personnel requiring assistance, pertinent management shall notify the following points of contact in the following sequence as soon as time permits and regardless of time of day:



1. Corporate Safety Manager (770) 834-4884 (or via mobile phone);
2. Human Resources (770) 834-4884;
3. Project Manager (via mobile phone); and
4. Senior Project Manager (via mobile phone).

The corporate safety manager (or a representative designated by RALIN's president) will notify OSHA and any other applicable regulators or reporting agencies should the circumstances of an event require regulatory notifications.

Additionally, an event report will be completed in accordance with "[Event Reporting](#)" section of this EHS Program.

Review the "[Safety Response Matrix](#)" section to ensure all steps have been taken for an event.

5.4 Emergency Plan for Adverse Weather

Adverse (or severe) weather procedures should follow a series of steps based on information obtained through emergency services, government agencies and news reports. Adverse weather typically allows for an advanced notice prior to impact. Therefore, precautions should be planned and staged accordingly. The key to adverse weather planning is communication. The following general steps should be followed at the onset of adverse weather warnings.

5.4.1 Initial Planning

- Management notifies all RALIN personnel, trades, vendors, suppliers, etc. of the potential for adverse weather.
- Based on facility design and/or varying stages of construction, the project team shall continually evaluate and identify the best location for seeking cover or protection in the event of adverse weather.
- Communicate to all site personnel where the safe haven to be used in the event of adverse weather is located.
- Management or superintendent notifies the main office of the plan's guidance.
- For jobsites, the project Manager notifies owner, architect, and other consultants of the plan's guidance.
- Monitor local emergency control sites to determine if area(s) should be evacuated.
- Management or superintendent establishes a Severe Weather Coordination Center (site office) and designates a person as Weather Supervisor.
- Notify all persons of control center phone numbers or radio channels, and supervisor's name.

5.4.2 Storm Preparation

- Secure all building premises and secure all loose objects.
- Secure site offices and secure all objects.
- Secure all equipment.
- Secure or remove all vital records if damage may be expected.
- Protect all glass panes.
- Determine if shut down of utilities are necessary.



- Evacuate all personnel.

5.4.3 Return to the Facility/ Jobsite – Resume Operations

- Return only after approval by authorities.
- Perform inventory / evaluation of damages, take pictures, and video if extensive.
- For jobsites, instruct trades to return.
- For jobsites, notify main office of damage.
- For jobsites, notify owner of extent of damage.
- Management notifies / responds to insurance carriers, if necessary.
- Performing a safety analysis for any necessary cleanup operations.
- Begin cleanup and restoration, if possible.
- Evaluate / track cost to restore to normal operations.

5.5 Emergency Action Plans

Emergency Action Plans will vary slightly and are based on the site-specific facility or conditions. That is why each plan must be tailored to fit every facility or project. Whereas 911 is generally the number to dial for all emergencies, there are some areas that may not have the 911 system in place. Management is responsible for reviewing the emergency contact system in each local area prior to commencing work. This can be accomplished by visiting local emergency providers in the area and discussing variables with them for a facility or at the onset of a project. Doing this will also provide responders with pertinent information about our work allowing a tailored response specific to the needs.

5.5.1 Fire Protection and Prevention Program/ Plan

1. Everyone is to evacuate building / jobsite in an orderly manner and reassemble in designated location.
2. Notify Supervisor of location of fire so that 911 or the local emergency responders can be called.
3. All supervisors are responsible for the location and number of employees at all times.
4. All personnel will be accounted for to ensure that everyone has evacuated the area.
5. Compile information regarding possible locations of missing/trapped people.
6. Do not return to the area until commanding office for emergency responders has confirmed the area is safe to re-enter.

5.5.2 Explosion Plan

1. Everyone is to evacuate building / jobsite in an orderly manner and reassemble in designated location.
2. Notify Supervisor of location of explosion so that 911 or the local emergency responders can be called.
3. All supervisors are responsible for the location and number of employees at all times.
4. All personnel will be accounted for to ensure that everyone has evacuated the area.



5. Compile information regarding possible locations of missing people.
6. Do not return to the area until commanding office for emergency responders has confirmed the area is safe to re-enter.

5.5.3 Collapse Plan

1. Everyone is to evacuate building / jobsite in an orderly manner and reassemble in designated location.
2. Notify Supervisor of location of collapse so that 911 or the local emergency responders can be called.
3. All supervisors are responsible for the location and number of employees at all times.
4. All personnel will be accounted for to ensure that everyone has evacuated the area.
5. Compile information regarding possible locations of missing people.
6. Depending on what has collapsed, (i.e. a scaffold collapse is different than a wall collapse) different actions will be taken. If the structural integrity of the building has been compromised, then stay out until emergency responders are on the scene and then take direction from them. If the collapse is from some external component, then the Supervisor must use his knowledge and experience to assess the situation and direct the actions of the on-site personnel.
7. Do not return to the area until commanding office for emergency responders has confirmed the area is safe to re-enter.

5.5.4 Gas Release Plan

1. Everyone is to evacuate building / jobsite in an orderly manner and reassemble in designated location.
2. Notify Supervisor of location of leak so that 911 or the local emergency responders can be called.
3. Shut off gas supply if possible.
4. All supervisors are responsible for the location and number of employees at all times.
5. All personnel will be accounted for to ensure that everyone has evacuated the area.
6. Compile information regarding possible locations of missing people.
7. Do not return to the area until commanding office for emergency responders has confirmed the area is safe to re-enter.

5.5.5 Injured Person Plan

1. Stay with the victim and offer them any assistance if possible.
2. Call 911 or the local emergency responders and report:
 - a. Jobsite name / location
 - b. Location of injured within facility or jobsite.
 - c. Type of emergency (injured person, fire, etc.)
 - d. Number of people injured
 - e. Type of injury(s)
 - f. Emergency response unit required



- g. Any special conditions
- 3. Stay on phone until response unit arrives.
- 4. Designate someone to meet the ambulance outside.
- 5. Once paramedics arrive, notify the supervisor of the event if they are not present.
- 6. Safety persons / superintendent move to event location.
- 7. Assist emergency response personnel in evacuation of injured person.

5.6 General Emergency Information

5.6.1 Work-Related Injuries or Fatalities

RALIN and Associate employees should be familiar with the guidance within Section 5.3 “Emergency Notification Plan” of this EHS Program and know where it is in case of an emergency. This policy shall be followed in the event of any RALIN injury or fatality within a 24-hour period.

All work-related inpatient hospitalizations, all amputations and all losses of an eye require OSHA to be notified (by RALIN’s safety manager) within 24 hours of the event. If a workplace fatality occurs, or for fatalities occurring within 30 days of the work-related incident, OSHA must be notified within 8 hours of the event

Sub-contracted companies must notify RALIN of any injury sustained on a RALIN project site and submit an event report to RALIN’s on site superintendent within 24 hours of the event. In addition, sub-contracted companies must comply with all regulatory guidelines as it relates to injuries and illnesses in the workplace.

5.6.2 Hazardous Material Exposure

There are hundreds of hazardous materials that workers could potentially come into contact with at any given time during the course of a project. The safety data sheets (SDS) books, maintained at each site, list the required actions that need to be taken for each specific exposure. Keep the SDS(s)/ manuals readily accessible and in a location where anyone can get to them easily. SDS(s) should also be posted near or on the jobsite bulletin board. Remember that it may well be the Supervisor that is exposed so everyone must know where to find the required information.

5.6.3 Violence in the Workplace

Violence will not be tolerated by RALIN whether in the field or in the office, our employees and crafts people entrusted to our care expect and deserve to work in an environment that is free from the threat of violence. Any acts of violence are grounds for dismissal and possible criminal charges.



Section 6 - EVENT MANAGEMENT/ RETURN TO WORK PROGRAM

6.1 Purpose

The purpose of the following section is to document RA-LIN policy regarding managing events (injuries, illnesses, near misses or close calls) and the resulting impacts of events.

6.2 Goals

The goal of the following section is to apply effective and consistent management practices when events occur. In addition, after a worker is injured the return to work program will place injured employees back into a working function at the earliest possible time to minimize cost impacts while complying with physician restrictions.

6.2.1 Primary Objectives

- Establish an effective and consistent standard by which employees can be returned to the place of employment shortly after a work-related injury.
- Benefit both the injured employee and employer by supplying meaningful work to the injured employee.
- Reduce the length of time an employee is absent from their normal position.
- Assist in controlling the days lost from work-related injuries as well as worker compensation costs.

6.3 Policy

6.3.1 Event Reporting

All events (a.k.a. accidents, incidents), regardless of severity and after seeking medical attention (via 911), should be reported as soon as possible to a supervisor and the corporate safety manager via phone at (770) 834-4884. If you are injured or you are aware of another employee's injury, you must report this to your supervisor **within 1 hour of the event**.

Initial identification/assessment of evidence will be performed as soon as all medical needs and notifications have been addressed and prior to any clean up. Initial identification of evidence immediately following the incident might include equipment, and materials involved and a recording of environmental factors such as weather, illumination, temperature, noise, ventilation, and physical factors such as fatigue, age, and medical conditions. Also collect:

- Listing of pertinent personnel:
 - Victims Witnesses
 - Emergency responders,
 - Supervisors of those affected personnel, and
 - Trades onsite on the day of the event and the day prior to the event.
- Photos of event site and the surrounding areas. Pictures should specifically be taken of:
 - The actual location(s) of the victims at the time of injury



- The remaining aftermath
- Areas and surfaces adjacent to the event's primary site,
- Equipment involved (on every side, make, model, and serial numbers)
- Weather data at the time of the event.
- Personal property of victims.

All evidence will be collected and preserved in a location that can be adequately secured to prevent theft and provides protection from environmental factors that may degrade or compromise the evidence until the Corporate Safety Manager directs otherwise. Evidence such as people, positions of equipment, parts, and papers must be preserved, secured, and collected through notes, photographs, witness statements, flagging, and impoundment of documents and equipment.

If the event involves any of the following circumstances or areas of a person's body, they are required to be taken for **PROMPT** medical examination. **NO EXCEPTIONS!**

- Loss of Consciousness
- Amputations
- Lacerations requiring stitches
- Impalement

Employees must use a doctor and/or clinic from the authorized panel of physicians (if applicable to the local worker's compensation laws).

All events must be reported to the superintendent **within 1 hour of the event**, to the corporate safety manager and main office **as soon as possible** after the event, and to the client (host facility) as soon as possible, or in a timely manner (within 24 hours of incident).

At the end of each week, all hourly employees will be asked to sign an injury statement, which documents that each employee has or has not been injured or have they witnessed any injuries during the week. This report is signed for event tracking purposes.

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

Proper equipment will be available to assist in conducting an evaluation of the event. Equipment may include some or all of the following items; writing equipment such as pens/paper, measurement equipment such as tape measures and rulers, cameras, small tools, audio recorder, PPE, marking devices such as flags, equipment manuals, etc.

Personnel shall be trained in their roles and responsibilities for incident response and incident investigation techniques. Training requirements relative to event evaluation and reporting (Awareness, First Responder, evaluation, and training frequency) should be identified in the program.

The project manager will complete the Event Report Form for all events or "near misses" involving employees, property damage, or events involving the general public. When the injury may possibly require offsite medical treatment to RA-LIN employees, the state specific (specific to the physical location of the event) First Report of Injury will also be completed and forwarded to the company insurance provider. The completed event reports are due within twenty-four (24) hours after the event.

When an event occurs, the superintendent must:

- Ensure that any injured party receives prompt first aid treatment for all injuries.



- An employee injured at the workplace must be transported and tested for the presence of alcohol and illegal drugs if there is a reasonable suspicion that unlawful drug use may have been a factor in the event. Only after medical care has been administered shall an injured employee be subjected to a reasonable suspicion drug and alcohol test. The results of the test must be released to RA-LIN.
- Review and correct the causes of all events to prevent their re-occurrence.
- Take any emergency action necessary to minimize the extent of loss to both people and property when a serious event occurs.
- Investigate and prepare a written incident report to document findings and recommendations on an Event Report Form. This must be completed within 24 hours. Written incident reports should be prepared and include an incident report form and a detailed narrative statement concerning the events. The format of the narrative report may include an introduction, methodology, summary of the incident, investigation board member names, narrative of the event, findings and recommendations. Photographs, witness statements, drawings, etc. shall be included.
- Conduct witness interviews and collect witness statements. Locate witnesses, ensure unbiased testimony, obtain appropriate interview locations, and use trained interviewers if possible. Follow-up interviews may be necessary for additional details and data.
- Employees must be trained that events are to be reported within 1 hour of the event to their supervisor.
- All work-related inpatient hospitalizations, all amputations and all losses of an eye require OSHA to be notified within
- 24 hours of the event. If a workplace fatality occurs or fatalities occurring within 30 days of the work-related incident, OSHA must be notified within 8 hours of the event. If this should occur, the project manager shall be notified, and they will contact the Safety Manager.
- Instruct the worker or their caretaker to provide RA-LIN with the following information that must be recorded on OSHA documentation:
- Facility name and address where medical services were provided, and
- Attending physician's full name and designation (e.g. MD, PA).

The corporate safety manager shall:

- Investigate all incidents and near misses/ close calls to the appropriate level with regards to incident severity. While all incidents should be investigated, the extent of such investigation shall reflect the seriousness of the incident utilizing a root cause analysis process or other similar method.
- Identify corrective actions resulting from incident investigations, and
- Document and communicate lessons learned and review similar operations to prevent reoccurrence. Changes to processes must be placed into effect to prevent reoccurrence or similar events.

Only RA-LIN's Corporate Safety Manager Will Notify OSHA of a Reportable Event.



6.3.2 Safety Response Matrix

After a safe environment has been re-established and initial 1st Aid / medical care completed, the current version of the "Safety Event Response Matrix" should be used to ensure that incidents will be investigated to the appropriate level with regards to incident severity and documented in full. The fillable form is available to all users of Procore. A suggested practice is to post the matrix on the jobsite bulletin board in the event of an emergency. See Matrix on next page.

RA-LIN/ Safety Event Response Matrix Checklist

Date of Event: _____
Name(s) of Involved Personnel: _____

Project Name: _____
Project City: _____

Version: 1/26/2017

This matrix is intended to be utilized per event. Please do not document injury activity per person via this form.

	Event (non-life threatening w/ non-RA-LIN personnel)	Event (life threatening w/ non-RA-LIN personnel)	Near-Miss (RA-LIN Personnel)	Event (Non-OSHA Reportable w/ RA-LIN personnel)	RA-LIN Event (OSHA Reportable w/RA-LIN Personnel)	Completed By:	Completion Date
Initial Activities							
Notify Immediate Supervisor, Site Superintendent, Corporate Safety Director, Project Manager	Yes	Yes	Yes	Yes	Yes	_____	_____
NOTIFY OSHA <i>(Fatalities within 30 calendar days of event are reportable to Notify Human Resources)</i>	n/a	n/a	n/a	n/a	Yes	_____	_____
E-Mail FROM Safety TO all parties with a first response and Initial analysis of events and facts for all to review and correct	n/a	n/a	n/a	Yes	Yes	_____	_____
STATE SPECIFIC FIRST REPORT OF INJURY <i>(Specific to where the event happened and Work Comp is based, filed)</i>	n/a	n/a	n/a	Yes	Yes	_____	_____
Drug and Alcohol Screening IF: <i>Reasonable suspicion that unlawful drug use may have been a factor in the event exists</i>	n/a	n/a	n/a	Yes	Yes	_____	_____
PICTURES will be taken of the injury (if possible), the environment around where the event occurred, and anything that may have contributed to the event.	Yes	Yes	Yes	Yes	Yes	_____	_____
Refusal of Medical Care Form Provided	n/a	n/a	n/a	Yes	Yes	_____	_____
Safety to report to site to conduct analysis IMMEDIATE	n/a	Yes	n/a	n/a	Yes	_____	_____
Safety to report to site to conduct event analysis during next scheduled visit.	n/a	n/a	n/a	Yes	n/a	_____	_____
Event Report filled out and submitted from RA-LIN site superintendent	Yes	Yes	n/a	Yes	Yes	_____	_____
Witness Statement(s) <i>(if Applicable)</i>	Yes	Yes	Yes	Yes	Yes	_____	_____
Follow-Up Activities							
OSHA 300 Log	n/a	n/a	n/a	Yes	Yes	_____	_____
Weekly Injury Statements that may apply:	n/a	n/a	n/a	Yes	Yes	_____	_____
Drug and Alcohol Screening Results	n/a	n/a	n/a	Yes	Yes	_____	_____
Work Restriction/ Prescriptions Documents	n/a	n/a	n/a	Yes	Yes	_____	_____
30-Day Follow-Up Check with Involved Worker	n/a	n/a	n/a	Yes	Yes	_____	_____
FINAL Safety Report	n/a	Yes	n/a	Yes	Yes	_____	_____
Panel of Physicians Audit	n/a	n/a	n/a	Yes	Yes	_____	_____
First Aid Supply Replenishment	Yes	Yes	n/a	Yes	Yes	_____	_____



6.3.3 Return to Work

6.3.3.1 Duties

The health and welfare of our employees is a top priority at RA-LIN. When one of our employees' experiences a work-related injury or illness, we are committed to assisting employees to return to work as soon as possible.

6.3.3.1.1 Modified Duty

In the interest of eliminating lost time injuries and reducing Workers Compensation costs, RA-LIN may use a "Modified - Duty Program" for injured employees. The intent of this program is to have injured workers with physical restrictions continue to work, performing a modified work task within their physical limitations. It is not to be construed as a "make work" program.

Modified duty is where an injured employee returns to work in a temporary existing job, which is not as physically taxing or demanding as their normal job.

6.3.3.1.2 Transitional Duty

Transitional duty is where positions are specifically created which will accommodate the restrictions of the injured employee.

This temporary job placement must meet the physical restrictions mandated by the employee's treating physician.

6.3.3.1.3 Restricted Work

Restricted work brings back an employee to their normal job duties while complying with the physician's restrictions. For example, an employee may be directed to not lift any more than 20 pounds.

Restricted work requires thorough communication with everyone involved (e.g. supervisors, co-workers and other employees) with an employee's duties to ensure restrictions are followed.

6.3.3.2 Examples of Possible Modified, Transitional, or Restricted Job Assignments

- Portions of an employee's regular job assignment
- Part of another employee's work
- Training or Instruction
- Safety Inspection
- Filing, paperwork, reports
- Special projects
- Community help activities

6.3.4 Return to Work Provisions

Written descriptions of each job position provide the basis for determining job assignments for a "Return to Work" employee.

A physical capacity evaluation should be completed by the treating physician to determine the employee's physical capability. The evaluation will be utilized to match capabilities with available tasks/ duties.



6.3.4.1 Additional Elements of the Return to Work Program

- Gradual Reclamation – When an injured employee returns to their full working capacity over a slow and intentional time period. For example, an employee may work a few hours a day for a couple of days a week for several weeks. This begins with limited work hours that gradually increase over time.
- Length of Time – A return to work job assignment is only intended for a temporary or short-term basis only. A maximum length of time shall be established per job duty assignment, as well as dictated by periodic physical examinations and employee statuses. A return to work job assignment can be terminated at any time by the employer.
- Communication with Employer / Injured Employee – During the recovery period, it is essential for the supervisor to maintain communication with the injured employee. Contact should include medical updates, progress while assigned to the temporary job, and genuine concern for the employee's situation. The injured employee is responsible for alerting the employer if job duty assignments are interfering with recovery or restrictions per physician's orders.



6.3.5 Physician's Release to Work Form

RA-LIN Physician's Release to Work Form

Employee's Name:	Date:
Physician's Name:	Telephone:

To be completed by Physician:

The named employee has been released by the named physician above to return to **Full Duty** as of _____ (Date) with No Restrictions.

The employee named above has been released by the above-named physician to Return to Work on _____ (Date) with the following **restrictions** through _____ (Date).

Check applicable provide Limitations / Restrictions

	YES	NO
Lifting (Max weight in LBS) _____ LBS.		
Carrying _____ LBS.		
Gripping _____ LBS.		
Reaching Overhead.		
Reaching Away for the Body.		
Walking (Hours Per Day) _____ HPD.		
Standing _____ HPD.		
Sitting _____ HPD.		
Kneeling _____ HPD.		
Squatting _____ HPD.		
Climbing _____ HPD.		
Operating Equipment.		
Operating Motor Vehicle.		
Writing/Documenting		

List Other Restrictions

	____ Temporary Restriction ____ Permanent Restriction
--	----------------------------------------------------------

Physician's Signature:	Date:
Employee's Signature:	Date:

By signing the statement above, I AGREE THAT I will follow through with all the restrictions listed above and notify my supervisor of changes to them.



Section 7 - INSPECTION PROCEDURES

7.1 OSHA Inspections

If OSHA visits a RALIN project, be courteous and helpful. Do not be argumentative or confrontational.

An OSHA Inspector may visit your job for one of five reasons:

1. Imminent Danger.
2. To investigate a serious event or death.
3. In response to complaints filed by individuals.
4. By random selection.
5. Re-inspection.

Explain to the OSHA representative that we will provide access as soon as notification is made to the corporate office and corporate safety manager.

7.1.1 Procedures

1. Refer the OSHA compliance officer arriving on the site to the company's Management Representative.
2. After verifying the compliance officer's official credentials, the superintendent shall notify the Safety Manager that an OSHA official has arrived to perform an inspection. OSHA will allow a reasonable period for the corporate representative to come to the jobsite.
3. Notify company counsel or corporate management representative of the inspection.
4. The superintendent should request to examine the Inspector's credentials as well as obtain his or her business card with an address and phone number to ensure that he is a representative of the Department of Labor.
5. No employees, other than the Management Representative, or Safety Manager should communicate with the OSHA compliance officer prior to conducting the opening conference.
6. Determine from the compliance officer what the purpose, scope and circumstances is for the visit. If based on a complaint, get a copy of the complaint.
7. Ensure the OSHA officer wears all necessary personal protective equipment and follows all company safety policies.

7.1.2 Opening Conference

An opening conference is required of OSHA. The superintendent and/or safety manager should take detailed notes, including date(s) of inspection, areas inspected, items discussed, and employees interviewed.

1. The superintendent should also ask:
 - a. If the site visit is directed at RALIN or another contractor/company
 - b. Brief OSHA representative with site safety orientation and with his/her signed acknowledgement.
2. Prior to inspecting the job, attempt to review with the Inspector:
 - a. Company policy.
 - b. RALIN Safety Program and Safety Manual.
3. Show him evidence of RALIN safety efforts and activities, such as:
 - a. Daily or weekly safety inspection records
 - b. Minutes of "Toolbox" safety training sessions



- c. Records of enforcement safety citations, etc.
- d. Any event data you may have with corrective action taken.

7.1.3 Inspection

1. The Inspector will designate the personnel he desires to accompany him. It could be a representative of the general contractor, as well as trades, and one or more employee representatives.
2. The superintendent and/or safety manager should stay with the OSHA officer at all times during the inspection except during employee interviews.
3. During the inspection, a camera that has the imposed date on the pictures should be taken. The superintendent should take any photographs taken by the inspector simultaneously, preferably from the same angle(s) and video also should be utilized, if used by the compliance officer.
4. During the inspection, all violations noted by the inspector should be corrected immediately to the compliance officer's satisfaction. Do not acknowledge the validity (good or bad) of any recognized violations.
5. If the inspection is related to a complaint, the compliance officer should only visit the areas involved in the complaint.
6. If the compliance officer deviates from areas covered by a complaint, inquire as to why there is a deviation.
7. All personnel shall be allowed to speak with regulating officials during an event such as this in a private conversation.
8. The compliance officer should be asked to put all requests for company information and/or documents in writing.
9. Document all samples or monitoring test taken by the OSHA compliance officer and request copies of all sampling and monitoring results as well as all photographs and videos taken. The company should request the compliance officer to schedule sampling and monitoring at a time when the company can conduct its own sampling and monitoring.
10. Request copies of all OSHA sample and monitoring reports from the compliance officer.
11. All work rules and safety procedures should be enforced and applicable to the compliance officer and walk-around team during the inspection.
12. You are not required to release any piece of equipment, tool, or other possible evidence to OSHA. If they want to take any evidence with them, contact the president of RALIN.

When the inspection is completed, OSHA will conduct a closing conference to discuss the findings. If the inspector does not mention one, insist upon one and record all the Inspector says will be included in his report. This is particularly important if the citations are to involve conditions that would either be difficult to correct or require sizeable expenditure. Remember, only 15 calendar days are allowed to respond to any citations after they are received.

7.1.4 Closing Conference

1. Listen to compliance officer's proposal and do not argue or debate the initial proposed findings.
2. Remind the compliance officer of the scope of the inspection as stated in the opening conference.
3. If directed by counsel, provide additional information and documentation relevant and supportive of the company's position as well as any information which shows abatement of any alleged violations.
4. Obtain from OSHA an acknowledgement of receipt of documents provided.
5. Take detailed notes on the alleged hazards identified and the problem areas indicated by the compliance officer, along with the applicable standards and suggested abatement procedures.



6. Provide the OSHA compliance officer with the name, title, full address, and phone and fax numbers of the person to whom all OSHA correspondence should be directed.

7.1.5 After the Inspection

1. Review all areas noted by the compliance officer and make appropriate adjustments.
2. Try to obtain all sample and monitoring reports from OSHA.
3. If you are issued citations, the following should be done:
 - a. Post the citation (with penalty amounts deleted – In state plan states need to check rule on posting) in the area where employee notices normally are posted.
 - b. Notify corporate office and send a copy of the citation(s) to them.
 - c. Notify company counsel and send a copy of the citation to them. With advice of counsel, schedule an informal conference with OSHA.
 - d. Post notice to employees of informal hearing.
4. **NEVER PAY** a citation without prior approval from RALIN's company president.
5. Within 180 days, a registered letter from the Department of Labor will be delivered to the company, which will contain a notice of proposed penalty for each citation. Copies of the proposed penalties should be **forwarded straightaway** to the corporate office and corporate safety manager, which will coordinate the matter with management. The company will have 15 working days to determine whether they wish to contest the citation, the time of adjustment, or the proposed penalty. If a decision is made to contest, then a Notice of Appeal will be filed with the OSHA Review Commission through the Department of Labor. Some state plan states maintain different procedures.
6. All citations will be appealed/ contested. Taking this course of action will allow RALIN to demonstrate to OSHA that safety is indeed a priority. Meeting with regulators can allow RALIN to implement effective and meaningful training and policies to negate any future occurrences of the same type. An additional benefit may be avoiding receipt of a negative official status within the OSHA reporting system and in turn maintaining a positive image and relationship with OSHA.

7.2 Safety Inspections

7.2.1 Corporate Safety

The Corporate Safety Manager will inspect projects monthly at a minimum. Project Superintendents are expected to accompany the Corporate Safety Manager during the inspection.

All deficiencies identified during the inspection are expected to be corrected promptly regardless of the project's goals, targets or staffing levels. Do not allow addressing an identified safety issue to cause an additional safety issue.

Deficiencies requiring correction after the corporate safety manager's departure (and with approval) because of availability of solutions or materials and/or supplies must be photographed and proof of the correction provided to the corporate safety manager at safety@ralinconstruction.com as soon as the issue is corrected.

7.2.2 Weekly

The Safety Inspection Weekly Checklist (form RSF-0320) must be filled out and maintained for record keeping purposes on the jobsite by RALIN's site superintendent or lead employee for that project. A comments column is included for notations of hazardous conditions encountered and a course of action to rectify these conditions. If a hazardous condition involving a trade is encountered, it should be noted here. It is also suggested that a copy be forwarded to the trade's field office and/or main office.



The inspection form can be used more frequently than every week, depending on the stage of the jobsite.

Regular and frequent site safety inspections will be conducted, by the company safety committee or by someone designated by the company safety committee.

7.2.3 Daily

The Safety Inspection Daily Checklist (form RSF-0330) must be filled out and maintained for record keeping purposes on the jobsite by RALIN's site superintendent or lead employee for that project. A comments area is included for notations of hazardous conditions encountered and a course of action to rectify these conditions. If a hazardous condition involving a trade is encountered, it should be noted here. It is also suggested that a copy be forwarded to the trade's field office and/or main office.



Section 8 - SUBSTANCE ABUSE POLICY

To maintain a drug-free work force, RALIN (hereafter called "the company") has adopted a substance abuse policy in order to maximize levels of productivity, enhance our competitive position in the marketplace, and to reach our desired levels of success without experiencing the costs, delays, and tragedies associated with work-related events resulting from drug abuse by employees.

The intention of this policy is to make the company a better place to work. The company's goal is to balance our respect for individual privacy with our need to keep a safe, productive, and drug-free environment. We intend to prevent and treat substance abuse by encouraging those who use drugs or abuse alcohol to seek help in overcoming their problem. In this way, fully rehabilitated abusers who remain drug-free can return to work as employees in good standing.

The company's policy is to employ a workforce free from illegal drug use and alcohol abuse either on or off the job. It is a condition of employment that an employee refrain from reporting to work or working with the presence of drugs or alcohol in his or her body, and if an injured employee refuses to submit to a test for drugs or alcohol, the employee forfeits his or her eligibility for medical and indemnity benefits. Any employee determined to be in violation of this policy is subject to disciplinary action which may include termination even for the first offense.

Testing will be performed and implemented pursuant to Title 34, Chapter 9, Article 11 of the Official Code of Georgia Annotated sections 34-9-410 to 34-9-421. This will include Job Applicant, Reasonable Suspicion, Routine Fitness for Duty, Post Event and Post Rehabilitation Drug Testing if the employee has caused or contributed to an on-the-job injury which resulted in loss of work time.

The company may test for any of the following as part of the drug-free workplace policy: Amphetamines (Binhetamine, Desoxyn, Dexedrine), Medical or Recreational Cannabinoids (Marijuana, hashish, hash oil, pot, joint, roach, spleaf, grass, weed, reefer), Cocaine (Coke, blow, nose candy, snow, flack, crack), Phencyclidine (PCP, angel dust, hog), Methaqualone, Opiates (Opium, Dover's Powder, Paregoric, Parepectolin), Barbiturates (Phenobarbital, Tuinal, Amytal), Benzodiazepines (Ativan, Azene, Clonopin, Dalmone, Diozepam, Vertron, Xanax), Methadone (Dolophine, Methadose), Propoxyphene (Darvocet, Darvon N, Dolene), Codeine, Heroin, Hydromorphone, LSD, Morphine, and Alcohol.

In addition to the substances, RALIN prohibits the use of synthetic drugs. Synthetic drugs are defined as non-organic, chemically synthesized, unsafe recreational drugs such as ecstasy (MDMA), LSD, meth (methamphetamine), Rohypnol, PCP, and OxyContin.

Drug and alcohol addiction are a complex yet treatable disease. For this reason, it is company policy that an employee found using, possessing, purchasing, selling, or manufacturing alcohol, illegal drugs, or non-prescribed drugs while on company property, or while operating company vehicles or equipment, or while engaging in company business, is in violation of this policy and will be subject to disciplinary action which may include termination. This company will not discriminate against applicants for employment because of past abuse of drugs or alcohol; however, the company will not tolerate any current drug or alcohol abuse.

An employee reporting for work who is visibly impaired, or unable to properly perform the required duties, will not be allowed to work. If possible, the supervisor will first seek another supervisor's opinion of the employee's status. Then the supervisor will speak privately with the employee about the situation to rule out the possibility that the problem may be caused by prescription drugs. The employee should notify the supervisor if the use of properly prescribed prescription drugs will affect the employee's work performance. Abuse of prescription drugs will not be tolerated.



All applicants for part-time or full-time positions at the company will be directed to submit to a controlled substance abuse screening which may include testing of the applicant's urine, hair, or blood. Applicants for positions that are not regulated by the Department of Transportation may begin work pending the results of the drug test. All CDL truck drivers must receive a negative test result before starting employment with the company.

Illegal drugs or non-prescribed drugs in the applicant's system will be verified by further tests on the original sample taken. Verified positive results will be caused to deny employment to any individual. A Medical Review Officer (MRO) will be available to discuss any positive results from the testing. Any applicant refusing to submit to a controlled substance screening will be disqualified for employment. Refusing to test or testing positive will result in the forfeiture of workers compensation medical and indemnity benefits.

Applicants will be required to submit to a urinalysis test at a laboratory certified by the United States Department of Health and Human Services or licensed by the Agency for Health Care Administration and chosen by the company. By signing a consent agreement, the applicant will release the company from liability.

All current employees of the company will be subject to a controlled substance abuse screening no less than sixty (60) days from this policy date. If follow-up testing to an EAP program is required, testing will be conducted at least once a year for a two (2) year period after completion of the program. Advanced notice of a follow-up testing date must not be given to the employee.

The company will inform the employee/job applicant in writing of a positive test result, the consequences of the test result, and the options available to the employee/job applicant. The company will provide to the employee, upon request, a copy of the test results.

An employee/job applicant who receives a positive confirmed drug test result from the medical review officer may contest or explain the result to the MRO within five (5) working days after receiving written notification of the positive test result. If an employee or job applicant's explanation or challenge is unsatisfactory to the employer, the person may contest the drug test result as provided by OCGA 34-9-414(6). If an employee's explanation or challenge is unsatisfactory to the MRO, within fifteen (15) days from receipt of the written notification, the MRO will provide to the employee/job applicant a written explanation of the MRO's findings along with the report of positive test results.

The employee/job applicant has the responsibility to notify the laboratory of any administrative or civil action brought pursuant to Georgia Statute. In the event an employee wishes a re-test of the specimen or wishes to challenge the test, the employee and/or their legal counsel will be responsible to notify the MRO and pay for any charges incurred.

All employees who drive company vehicles subject to the rules and regulations of the Federal Highway Administration (FHWA) will be tested according to the Substance Abuse and Mental Health Services Agency (SAMHSA) protocols.

All employees of the company may be subject to random testing for controlled substance abuse and random testing will be done on a percentage basis for a fair and equal manner. Reasonable suspicion testing means drug testing based on a belief that an employee is using or has used drugs or alcohol in violation of the employer's policy, drawn from specific objective and explainable facts, and reasonable inferences drawn from those facts in light of experience, and will be done when a report or documentation of drug use is provided by a reliable and credible source.

Prescription drugs must be listed on the Chain-of-Custody Form submitted for analysis. The use of legal drugs prescribed by a licensed physician for specific treatment will not result in disciplinary action. However, any employee who must use such prescribed medication while engaged in company business and who has been



advised by a physician that his/her performance or behavior might be adversely affected by such medication, particularly in safety sensitive situations, should report these facts to his/her manager with appropriate documentation. The manager, with input from Human Resources, will determine if temporary reassignment of duties is appropriate. The MRO will consult with any employee regarding technical information for any medication.

Any employee arrested for a work-related drug or alcohol violation, must report this fact to Human Resources within five (5) days after such an arrest. Any employee convicted of a work-related drug or alcohol charge will be subject to disciplinary action up to and including termination of employment.

Employment Assistance Programs (EAP) will be available to all employees. The company will make available all providers through the U.S. Journal of Drug and Alcohol Dependency and a representative sampling of names, addresses, and telephone numbers of employee assistance programs and local drug rehabilitation programs. Employees are encouraged to use this resource file, which is in the Drug-Free Workplace Office Manual in the business office. If an employee should approach the company for assistance through rehabilitation for drug abuse or alcohol abuse prior to a testing request by the company, all possible and positive consideration for medical leave of absence for treatment and/or counseling will be pursued. If an employee is terminated, the company will not be obligated to aid beyond the last day of employment.

All information, interviews, reports, statement memoranda, and drug test results, written or otherwise, received by the client as a part of this Drug-Free Workplace Program are confidential communications and are exempt from the provision of Subsection 119.07(1) and Subsection 24(a), Art 1 of the State Constitution, and may not be used or received in evidence, obtained in discovery, or disclosed in any public or private proceedings, except in accordance with this section. Unless authorized by state laws, rules or regulations, the company will not release such information without a written informed consent form signed voluntarily by the employee or applicant as outlined in OCGA 34-9-420.

This section does not eliminate the bargaining rights as provided in the collective bargaining process, if applicable. Drugfree workplace program requirements, pursuant to this section, shall be a mandatory topic of negotiations with any certified collective bargaining agent for nonfederal public-sector employers that operate under a collective bargaining agreement.

Any questions regarding this policy should be directed to Human Resources or management.

OVER THE COUNTER AND PRESCRIPTION DRUGS WHICH COULD ALTER OR AFFECT THE OUTCOME OF A DRUG TEST:

Alcohol

All liquid medications containing ethyl alcohol (ethanol). Please read the labels for alcohol content. As an example, Vick's Nyquil is 25% (50 proof) ethyl alcohol, Comtrex is 20% (40 proof), Contact Severe Cold Formula Night Strength is 25% (50 proof), and Listerine is 26.9% (54 proof).

Amphetamines

Obetrol, Biphedamine, Desoxyn, Dexedrine, Didrex

Barbiturates

Phenobarbital, Tuinal, Amytal, Nembutal, Seconal, Lotusate, Fiorinal, Fioricet, Esgic, Butisol, Mebaral, Butabarbital, Butabital, Phrenilin, Triad, etc.



Benzodiazepines

Ativan, Azene, Clonopin, Dalmane, Diazepam, Librium, Xanax, Seraz, Tranxene, Valium, Verstran, Halcion, Paxipam, Restoril, Centrax, Rohypnol

Cannabinoids (Recreational or Medical)

Marinol (Dronabinol, THC)

Cocaine

Cocaine HCl topical solution (Roxanne)

Methadone

Dolophine, Methadose

Methaqualone

Not legal by prescription

Opiates

Paregoric, Parepectolin, Donnagel PG, Morphine, Tylenol with Codeine, Empirin with Codeine, APAP with Codeine, Aspirin with Codeine, Robitussin AC, Guaiatuss AC, Novahistine DH, Novahistine Expectorant, Dilaudid (Hydromorphone), M-S Contin and Roxanol (Morphine Sulfate), Percodan, Vicodin, OxyContin, etc.

Phencyclidine

Not legal by prescription Propoxyphene

Darvocet, Darvon N, Dolene, etc.



Section 9 - RALIN EMPLOYEE SAFETY ORIENTATION

9.1 Introduction

The purpose of the Safety Orientation Package is to provide awareness to all employees regarding safety policies and procedures of RALIN. This package includes an overview of RALIN Safety Policies, which are included in the RALIN Safety Manual. Each employee must be familiar with the enclosed policies and procedures. Additional training will be provided to employees during employment. Any questions regarding safety should be directed to the Jobsite Superintendent.

RALIN values the safety and health of all employees, and continually promotes training and awareness. We encourage continued feedback to improve our orientation and training programs.

Safety is everyone's responsibility. Management cannot be solely responsible for the acts of employees. Each employee is expected to work in safe manner.

Each employee will:

- ✦ Work according to good safety practices as posted, instructed, and discussed.
- ✦ Refrain from any unsafe act that might endanger yourself or other employees.
- ✦ Use all personal protective equipment provided for safety.
- ✦ Report any and all unsafe conditions, situations and/or acts to the supervisor or company safety representative as soon as possible.
- ✦ Be a safe worker off the job as well as on the job.
- ✦ Report any and all injuries to your supervisor within 1 hour.
- ✦ Report any and all substance abuse violations to supervisor promptly.
- ✦ Recommend better ideas and practices for safety.
- ✦ Communicate training needs to supervisors.
- ✦ Attend and participate in all company safety training sessions and/or safety functions.
- ✦ All hourly employees are required to sign an End of the Week Injury Statement. This statement is signed for event tracking purposes

Signature

Date



9.2 Safety Program Acknowledgement

My signature below certifies that I have reviewed the RALIN Safety Program and Jobsite Safety Rules as outlined in the next section. The Safety Program and Jobsite Safety Rules were either read by me or read to me by an employee of the company. I agree to be guided by the safety instructions issued by my supervisors and will report all unsafe conditions or practices observed on the work site.

I understand that a current copy of RALIN's environmental, health and safety (EHS) program is available at the bottom of page at the following URL: <http://ralinconstruction.com/about/safety/>.

I understand that any violation of the safety rules or refusal to comply with the OSHA "Safety and Health Regulations" is grounds for dismissal.

I will report all injuries or events to my foreman or supervisor as soon as possible.

If I have a personal injury, I may receive first aid treatment at the jobsite or be sent to a medical facility listed on the Panel of Physicians (as applicable to the local worker's compensation laws) posted at the jobsite.

I further understand that if I seek medical treatment on my own or a location other than the posted company Panel of Physicians (as applicable to the local worker's compensation laws) or company medical facilities for an on-the-job injury, I shall be responsible for my own medical bills and that I may be subject to termination from employment with RALIN.

Signature

Date



9.3 Drones (sUAS)

RALIN projects may utilize drones for progress status, inspections, and/or marketing purposes.

The Federal Aviation Administration (FAA) defines drones as "small Unmanned Aerial Systems (sUAS)."

A site wide notification system (still under development) will be established to notify all site personnel of ongoing drone flight operations. Workers performing outdoor tasks where a drone is actively in flight shall take precautions to avoid any physical contact with the sUAS.

Drones (sUAS) operate at high speeds (RPM) and may cause serious injuries. Suggested work practices during live drone operations follow:

- DO NOT intentionally interact with the sUAS.
- DO NOT touch the equipment physically or through a physical extension such as an equipment boom, 2x4(s), or thrown objects.
- DO NOT distract the operator for anything other than safety concerns until the drone is on the ground and powered off.
- Be careful of the operator's personal safety if vehicles or equipment must operate in proximity of the operator's piloting location.

While flight altitude should be greater than 20' except for takeoff and landing, establish situational awareness of the location of the operating sUAS if operations are within a visual line of sight.

Any non-RALIN employee or trade must request authorization from RALIN's corporate safety manager for permission to use a drone over or near a RALIN project site or property.

Signature

Date



9.4 Occupied Sites

RALIN often performs work on projects where occupants such as the following are present:

- Students
- Client Employees
- Customers of Clients
- Patients

In order to protect all involved parties from any perceived impropriety, all employees must remain within the confines of the project's designated boundaries such as construction limits and parking areas.

REMEMBER

Certain improprieties could result in criminal charges.

In the event of work being performed within a proximity of occupants because of the nature of the work, partitions and barriers will be established to prevent workers and occupants from crossing areas.

No facilities (restrooms, water, vending machines, etc.) will be utilized by both RALIN managed personnel and the client's occupants unless prior approval through RALIN's project manager has been arranged and disseminated.

Where physical barriers may not be feasible, alternative arrangements such as an escort designated by RALIN project management or after normal work hour schedules may be required.

Within this same scope of discussion, SMOKING is only allowed where RALIN's site superintendent has designated a proper designated smoking area or appropriate policy.

RALIN managed employees and trades violating this policy will be removed from the site immediately until disciplinary procedures have been completed.

Signature

Date



9.5 Fall Protection Program

9.5.1 Purpose

This program is designed to provide guidance for all RALIN jobsites for establishing procedures to identify, evaluate, and always control falls from elevations. This program focuses on orientation, training, and enforcement to ensure fall protection guidelines are implemented and adhered to by all employees.

The management of RALIN has adopted a Fall Protection Program to eliminate fall events. All levels of management and supervision will be responsible and accountable for ensuring the success of the program by integrating this program into the way of doing business at RALIN

9.5.2 Goal

The goal of this program is to eliminate all falls from elevations by identifying and managing all existing and potential fall exposures.

9.5.3 Responsibility

All levels of management and supervision are responsible for supporting and enforcing this program to ensure 100% compliance by all personnel. Management, estimating, scheduling, and project management personnel are responsible for pre-planning safety into the job by identifying and predicting potential fall exposures both during the preconstruction phase and during construction. Each discipline shall plan safety into the job with priorities placed on engineering solutions to the hazards. Each discipline is responsible for working with architects, consultants, and company safety professionals to design a safe workplace for all employees.

Personal fall protection systems shall only be used as a backup method to primary fall protection systems, such as guardrails, or when there is no other feasible or practical means for safely accomplishing the work.

9.5.4 Accountability

All levels of management and supervision shall be accountable for the safety of jobsite personnel. Jobsite supervision is directly responsible for using the Fall Protection Program to control falls from elevations. Management teams shall have the goal of zero fall-related events for each jobsite. Measurement of performance will consider actual results related to this goal. Management, estimating, and scheduling personnel shall be accountable for pre-planning, designing, budgeting, and scheduling fall protection into each jobsite.

9.5.5 Employee Training

Pre-task safety instruction must be given to each person assigned to work in elevated areas prior to commencing work activities. New hire safety orientation training must be conducted for all new hires at the beginning of employment. The orientation shall include the company's Fall Protection Program policy, procedures, and work rules. Fall Protection must be included in these meetings on a regular basis or when an upcoming work assignment may involve unusual or non-routine fall exposures. Written documentation of all employees training shall be kept on file.

9.5.6 Procedures

All employees with potential fall exposures per OSHA standards will be required to have **fall protection in place and in use**.



Fall protection systems shall include, but are not limited to the following areas:

- ✦ Guardrail Systems
- ✦ Building construction activities
- ✦ Demolition activities
- ✦ Reinforcing steel deliveries, rigging, erection
- ✦ Concrete placement
- ✦ Structural / miscellaneous steel erection
- ✦ Precast concrete erection
- ✦ Scaffolding / Hoisting activities
- ✦ Scaffolds, aerial lifts and ladders
- ✦ Crane erection / dismantling
- ✦ Hoisting areas including platforms, docks, chutes
- ✦ Floor / Wall penetrations and exposures
- ✦ Elevator shafts
- ✦ Stairways
- ✦ MEP shafts
- ✦ Perimeter edges

All exterior skin installation including, but not limited to, roofing, stone, masonry, waterproofing, and glazing

Fall protection options shall include, but are not limited to, the following:

- ✦ Guardrail Systems
- ✦ Safety nets
- ✦ Full body harnesses
- ✦ Retractable lifelines and lanyards
- ✦ Vertical and horizontal lifelines
- ✦ Built-in hook points
- ✦ Written plans for fall protection

A Safety Monitoring System or any combination with it will not be allowed on RALIN projects as a fall protection system. Personnel working on traveling powered work platforms or personnel lifting / hoisting devices shall also properly secure their safety lanyards.

Fall protection devices such as lifelines, safety harnesses/lanyards, etc., shall be inspected as required by the manufacturer's safety procedures for damage or deterioration. Defective equipment shall be removed from service and repaired or destroyed. Fall protection devices subjected to shock loading imposed during fall arrest shall be removed from service.



All contractors and trades shall be responsible for supplying their own fall protection systems and/or equipment.

A site-specific rescue plan must be developed and included as part of the overall Fall Protection Program.

Signature

Date



9.6 Fire Extinguisher Training

Four things that must be present to maintain a fire:

- ✦ Fuel,
- ✦ Heat,
- ✦ Oxygen, and
- ✦ Chain reaction (take away **any one** of the first three and the fire will be out).

When using a fire extinguisher, one should be upwind from the fire during extinguishing.

Stay back 8' to 10' from a grease fire because the force of the pressure / powder from the fire extinguisher may cause the grease to splatter.

Four classes of fire extinguisher ratings:

- ✦ Wood, paper, plastic,
- ✦ Flammable liquids,
- ✦ Electrical, and
- ✦ Chemical.

PASS is the word used to train people properly to use a fire extinguisher:

- ✦ **P**ull the pin.
- ✦ **A**im extinguisher at base of fire.
- ✦ **S**queeze handle.
- ✦ **S**weep extinguisher from side to side.

Mount fire extinguisher:

- ✦ Minimum of 4" off the floor or walking surface/deck,
- ✦ Top no higher than 60" off floor, and ✦ 40 lb. extinguisher 3'-4' from floor.

Everyone should check the fire extinguisher in work area daily to make sure it has adequate pressure and that the pin is still in the proper place. A fire extinguisher should be "serviced" once a year. At each testing, a maintenance tag is placed on the extinguisher to show inspection date.

Signature

Date



9.7 Silica Program

The purpose of this program is to ensure the protection of all employees from the hazards associated with Respirable Crystalline Silica in accordance with OSHA guidelines.

These guidelines are designed to eliminate/reduce exposure against occupational silica exposure. Engineering and work practice control measures such as wet cutting and/or use of tools with dust collection systems will be used whenever feasible. When engineering controls are not feasible, respiratory protection may be required.

No RALIN employee shall enter any area potentially contaminated with a silica hazard.

All scopes of work (RALIN or sub-contracted) on a RALIN project will be planned to properly eliminate or minimize Respirable Crystalline Silica through coordination and approval by the RALIN project management team designated to oversee the corresponding project.

This section applies to all occupational exposures to respirable crystalline silica in construction work, except where employee exposure will remain below 25 micrograms per cubic meter of air (25 µg/m³) as an 8-hour time-weighted average (TWA) under any foreseeable conditions.

Common sources of respirable crystalline silica include sand, stone, rock, concrete, brick, block, mortar, asphalt, drywall, soil, abrasive blasting agents, granite, and most other types of rock.

RALIN has developed an Exposure Control Plan (ECP). All personnel on a RALIN project are subject to the guidance provided within the ECP.

The following list includes the most frequent tasks to expect an exposure to respirable crystalline silica on RALIN projects:

Concrete Demolition	Masonry Demolition	Demolition Activities
Concrete Mixing	Grout/ Mortar Mixing	Rock/Stone Blasting/ Drilling
Concrete Cutting/ Drilling	Masonry Cutting/ Drilling	Housekeeping Activities
Concrete Control Joint Cuts	Abrasive Blasting	Drywall (1% or > Silica) Install
Grading/Excavation	Asphalt Demolition	Asphalt Cutting/ Drilling

Proper housekeeping practices must be performed to reduce or eliminate potential exposures to respirable crystalline silica

Construction projects are a dynamic environment. Every scope of work and/or task involving potential silica exposures shall be evaluated to determine if access to the area must be restricted 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.

On at least a daily basis, when work that may expose employees to a silica exposure is recognized or ongoing, then conduct a meeting with all onsite foremen/supervisors and a RALIN project management member or superintendent to disseminate the rules and conditions for the day.

In coordination with RALIN site project management or superintendent, all crews responsible for silica related work will cordon off areas where a structure does not exist to serve as a barricade to prevent entry with red "DANGER" tape (installed to remain at least 36" off the elevation surface it crosses).

In addition to any instance of "DANGER" tape placed to notify personnel of a silica hazard, signage informing explicitly of a "Danger... silica" hazard shall be posted at entrances/exits and/ or every 50 linear feet where personnel are not prevented physically from entering the area by means of a barrier, structure, door, etc.



All RALIN and sub-contracted personnel will have access to this written Exposure Control Plan on RALIN's website at the following URL: <http://ralinconstruction.com/about/safety/>.

RALIN's "competent person(s)" shall always have the authority to indefinitely stop, evaluate, and redirect any work activities on a RALIN project. RALIN's "competent person(s)" will include the following personnel to implement the written exposure control plan through frequent and regular inspections of job sites, materials, and equipment:

- Corporate Safety Manager;
- Field Safety Manager;
- Project Manager;
- Superintendent; and
- Trade's onsite foremen/ supervisor.

All personnel on a RALIN project with a potential exposure to respirable crystalline silica will be trained in accordance with 29 CFR 1926.1153.

If PPE is required, then a Respiratory Protection Program must be implemented in accordance with 29 CFR 1926.1153 and 29 CFR 1910.134.

Trade personnel subject to 29 CFR 1926.1153 shall provide current proof of a written exposure control plan and respirator program.

Signature

Date



9.8 Hazard Communication (HazCom) Certificate

My signature below certifies that I have read and understand this certificate. I know that this jobsite has an active Hazard Communication Program/ Global Harmonization System (GHS). I understand that my responsibility is to observe and follow safe work guidelines when working with hazardous products. I further understand the following:

Most hazardous chemicals will fall into five broad categories:

- ✦ Flammables and combustibles
- ✦ Compressed gases
- ✦ Systemic poisons
- ✦ Corrosives
- ✦ Irritants

A hazardous substance can endanger your well-being in four ways:

- ✦ Inhaled
- ✦ Ingested
- ✦ Absorption
- ✦ Injection

Safety data sheets (SDS) contain the following information:

- ✦ How to properly handle and store
- ✦ Outline spill clean-up and procedures
- ✦ The medical and first aid procedures in case of overexposure

I know where the safety data sheets (SDS), emergency supplies, and emergency phone numbers are located on the jobsite. I understand how to interpret and utilize a safety data sheet.

I will, when working with hazardous products in containers, follow the guidelines outlined on labels, which explain the dangers of the product and the proper way to use the product.

I also understand that the hazardous chemical list, RALIN Hazard Communication Program, and the safety data sheets (SDS) are available for my review upon request.

I agree to observe and follow all of RALIN's safe work rules and practices.

Signature

Date



9.9 Emergency Plan

An emergency plan is a set of rules or procedures to be followed by all personnel in the event of a jobsite emergency.

The emergency plan is maintained in the field office and is under the direction of the jobsite superintendent. The emergency plan determines the proper access/egress of emergency equipment and/or personnel into or out of the jobsite in case of emergency.

Supervisors will be directed to key locations on the site to assist in an emergency.

Each employee is expected to follow direction of supervisors and cooperate in any emergency action effort.

Personnel should evacuate the site in an orderly fashion if instructed to do so by supervisors.

If you become aware of an emergency or an injury, notify a supervisor as soon as possible.

Notify supervisor of the location of emergency so that 911 can be called.

All personnel shall evacuate the area in an orderly manner and reassemble in the designated location.

All supervisors are responsible for knowing the location and number of employees at all times.

All personnel will be accounted for to ensure that everyone has evacuated the area.

Personnel are strictly forbidden to discuss jobsite conditions, events, or emergencies with the media, press or any person not associated with the emergency.

Signature

Date



9.10 Employee Discipline Notice

Employees who violate safety or other job rules may be subject to discipline. Depending on the severity of the violation, this may result in a verbal or written warning or termination.

When it is necessary, site management will issue a reprimand as soon as an infraction has been observed. The reprimand serves to:

1. Allow employees to change unsafe work practices.
2. Document an infraction that will go in an employee's personnel file.
3. Guarantee that employees are warned of rule infractions prior to further disciplinary action being taken.

It would be appropriate to issue a reprimand for the following reasons:

1. Failure to wear proper protective equipment.
2. Willfully endangering one's life or the lives of other employees; this is gross misconduct and can be cause for immediate dismissal.
3. Performing work in an unsafe manner.

Employee Discipline Notice

Date:	Check Applicable: <input type="checkbox"/> First Warning <input type="checkbox"/> Second Warning <input type="checkbox"/> Third Warning
Project Location/Name:	
Supervisor Signature:	Employee Signature:
Reason For Violation Notice:	
Corrective Action Taken:	

Signature

Date



9.11 Scaffold Training

ALL SCAFFOLDS WILL BE TAGGED within a visible line of sight of all scaffold access ways

Color Coding for Scaffolding:

- ✦ Red = Danger – Do Not Use
- ✦ Green = Go – Ready to Use

Rolling Tower Scaffold:

The rolling tower can be no greater than 4 times the minimum base in height. For example: A 5'-0" width scaffold x 4 = 20'0" height. All rolling towers must be the following.

- ✦ Must be the proper height.
- ✦ Scaffold sections and casters must be locked/pinned in place
- ✦ The access ladder must be secured to the scaffold and extend at least 36" above the landing.

Conditions for Riding on a Scaffold:

- ✦ Floor surface level.
- ✦ The height can only be 2 times the minimum base.
- ✦ All tools must be off the scaffold.
- ✦ The scaffold must stay plumb and square while moving.
- ✦ Guardrails at 42" and 21".
- ✦ Minimum 3 1/2" toe board.
- ✦ 20'-0" is the maximum height allowed.
- ✦ All braces and casters are bolted/ pinned.

General Scaffold:

- ✦ Base plates and a minimum 2" x 10" mudsill plate.
- ✦ Soil must be compacted.
- ✦ Base plates must be nailed to sill plate with a minimum of two nails.
- ✦ Never use bricks, blocks, rocks, etc. as support.
- ✦ All legs must have equal bearing.

Scaffold Decking / Boards:

- ✦ All scaffold boards must have a minimum 12" overlap, nailed together.
- ✦ All scaffold boards must be cleated if the lap is less than 12".
- ✦ All personnel platforms must have a minimum 3 1/2" toe board.
- ✦ All material platforms should never be used as a personnel platform.

Guardrails / Toe Boards:

- ✦ All handrails must be 42" and 21".
- ✦ All toe boards must be a minimum of 3 1/2".
- ✦ X-braces are not adequate as a complete guardrail system.
- ✦ All guardrails must withstand 200 lbs. of force with no more than a 3" deflection.



X-Braces:

- ✦ Never to be used as a complete guardrail system.
- ✦ Can be used as a part of a guardrail system, in some cases.
- ✦ Never to be used as a ladder or any other means of access.
- ✦ If the X-brace must be removed to work, then metal tubing with clamps must take its place.

General Conditions:

- ✦ A competent person must supervise the building / erection of the scaffolding.
- ✦ Scaffolding erected outside the building / structure must be secured to the structure at least every: 20'-0" / 26'-0" Vertically AND 30'-0" Horizontally AND at each end of the scaffold.
- ✦ Scaffolding must never be lifted other than vertically.
- ✦ Fall Protection must be provided at and above 10'-0" on all scaffolds.
- ✦ "Baker" or "Perry" type scaffold shall be used per the manufacturer's written recommendations.

Signature

Date



9.12 Ladder Safety

- ✦ General requirements - the use of ladders with broken or missing rungs, broken or split-side rails, or other faulty or defective construction is prohibited.
- ✦ Portable ladder feet shall be placed on a substantial base, and the area around the top and bottom of the ladder shall be kept clear of obstructions, trash, materials, etc.
- ✦ No step ladder shall be used in the folded-up/ closed position.
- ✦ Ladders shall not be used in a horizontal position as platform, runways, or scaffolds.
- ✦ Ladders shall not be placed in passageways, doorways, driveways, or any location where they may be displaced by activities being conducted on any other work, unless protected by barricades or guards.
- ✦ All ladders shall extend at least 36 inches above the landing. When this is not practical, grab rails, which provide a secure grip for an employee moving to or from the point of access, shall be installed.
- ✦ Portable ladders shall be tied, blocked, or otherwise secured to prevent movement.
- ✦ Portable metal ladders shall not be used for electrical work and/or electricity.
- ✦ Inspect ladders daily, before use and at frequent regular intervals; if any ladder is found defective, red tag it until it is repaired or discarded. NEVER use a defective ladder.
- ✦ Use clear shellac, clear varnish, or oil as a preservative; paint is prohibited because it conceals defects.
- ✦ Clean mud or greasy substance from your shoes before climbing up ladder.
- ✦ All ladders should be secured top and bottom (to prevent movement against the heaviest anticipated load) and placed on a 4 to 1 ratio or at about 75 degrees.
- ✦ Always face the ladder and hold on with both hands, whether climbing up or down.
- ✦ Carry tools in suitable pockets or have tools and other objects hoisted with a rope and bucket.
- ✦ Work facing the ladder and hold on with at least one hand.
- ✦ Use a safety harness if the type of work requires it.
- ✦ It is dangerous to reach out too far from a ladder in any direction; move the ladder as the work requires.
- ✦ Three-point safety system: When climbing or descending a ladder, you must always have three points of contact (i.e., only one foot or hand may be off the ladder any time).
- ✦ Six-foot rule for ladders near perimeter: When using ladders within six feet of a slab edge, large interior slab opening or perimeter fall hazard, you must provide fall protection (i.e. - tie-off).

Signature

Date



9.13 Eye Protection

Depending on your job, you may need goggles, an eye shield, a facemask, or safety glasses. It is important to select the appropriate type and to wear and use it properly.

There are four types of particles that cause eye injuries on the job.

- ✦ **Unidentified Flying Object:** These microscopic objects consist of dust and particles floating around in the air, generated by wind, equipment, or cleaning operations. When working in dusty conditions, wear eye protection.
- ✦ **Particles Resulting from Chipping, Grinding, Sawing, Hammering or Using Power Tools:** These particles move at a high speed and strike with the force of a bullet. Wear eye protection any time overhead operations are performed. It may be advisable on some jobs applications to wear safety glasses under a full-face shield.
- ✦ **Invisible Hazards:** You can't see the injurious light rays generated by welding operations or laser beams. And their effects often are not felt until hours later. Wear the eye protection required when using such equipment. NEVER look in the direction of welding arcs or where a laser beam is being used.
- ✦ **Liquids:** Hot liquids, such as tar or asphalt, solvents, paint, and solutions for cleaning masonry or metal, can cause serious eye injury if splashed in your eyes. The use of proper eye protection, and a full-face shield is essential when transferring liquids between containers and when using caustic or acid cleaners.

Clear safety glasses may be worn by each jobsite employee. The employee is responsible for replacing safety glasses that are lost or stolen. Employees wearing non-safety rated prescription lenses acknowledge that their glasses only offer them minimal protection. When using tools or performing other operations requiring safety glasses, the use of prescription glasses only is not acceptable. Additional eye protection, such as face shields or goggles, may be required when using certain tools.

First aid must be available (per OSHA 29 CFR Part 1910.151(c)) where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

All employees of all trades and vendors shall be required to wear eye protection when required, provided by the trade.

All safety glasses used on RALIN jobsites shall bear the "Z87" emblem or stamp on the safety glasses.

Signature

Date



9.14 Substance Abuse and Drug / Alcohol Testing Policy

I, _____
PRINT NAME HERE

acknowledge that I have reviewed RALIN's substance abuse policy.

I further acknowledge that I have reviewed each item thoroughly, and that I will abide by every aspect of them including, but not limited to, testing and reporting requirements. I also acknowledge that this policy does not change my status as an employee-at-will, whom the employer may terminate with or without cause at any time, and that my signature on this acknowledgement is required as a condition of my continued employment.

I fully understand that the failure to comply with RALIN's Substance Abuse Policy may result in termination of my employment.

Signature

Date



9.15 Event Reporting

All events (a.k.a. accidents, incidents), regardless of severity, should be reported as soon as possible to a supervisor. If you are injured or you are aware of another employee's injury, you must report this to your supervisor **within 1 hour of the event**.

If the event involves any of the following areas of a person's body, they are required to be taken for **PROMPT** medical examination. **NO EXCEPTIONS!**

- Loss of Consciousness
- Amputations
- Lacerations requiring stitches
- Impalement

Employees must use a doctor and/or clinic from the authorized panel of physicians (if applicable to the local worker's compensation laws).

All events must be reported to the superintendent **within 1 hour of the event** and to the main office **as soon as possible** after the event.

Event reports and information are due within twenty-four (24) hours after the event to the office of RALIN

At the end of each week, all hourly employees will be asked to sign an injury statement, which states they have not been injured nor have they witnessed any injuries during the week that have not been reported to their supervisor. This report is signed for event tracking purposes.

The project manager will complete the Event Report Form on all events or "near misses" involving employees, property damage, or events involving the general public. When the injury requires offsite medical treatment to RALIN employees, the state specific (specific to the physical location of the event) First Report of Injury will also be completed and forwarded to the company insurance provider. The completed event reports are due within twenty-four (24) hours after the event.

When an event or near miss occurs, the superintendent must:

- ✦ Ensure that any injured party receives prompt first aid treatment for all injuries.
- ✦ Review and correct the causes of all events to prevent their re-occurrence.
- ✦ Take any emergency action necessary to minimize the extent of loss to both people and property when a serious event occurs.
- ✦ Investigate and report findings and recommendations and document those findings on the Event Report Form. This must be completed within 24 hours.
- ✦ Employees must be trained that events are to be reported within 1 hour of the event to their supervisor.
- ✦ For Occupational Safety and Health Administration (OSHA) regulated projects, all work-related inpatient hospitalizations, all amputations and all losses of an eye will be reported to OSHA within 24 hours of the event. If a workplace fatality occurs or fatalities occurring within 30 days of the work-related incident, OSHA must be notified within 8 hours of the event. If this should occur, the RALIN Corporate Safety Manager is to be notified and will contact OSHA.

Signature

Date



9.16 Multiple Injury Policy

The goal of the RALIN Safety Program is to eliminate injury, illness, or loss of life resulting from jobsite events by developing an awareness of safe working practices. It is the policy of RALIN to maintain a safe working environment for its employees at all times.

If an employee is injured in a situation due to their own action or causes an injury of another employee more than three times in any twelve-month period, the employee will be subject to termination of employment.

Signature

Date



9.17 Housekeeping/ Clean-Up

Housekeeping **must** be a part of your daily routine and must match the pace of the work.

Follow these steps to help keep your work area clean:

- ✦ Clean up all areas every day, including but not limited to, jobsite, vehicles, shop, office, equipment, and tools.
- ✦ Inspect your workplace daily for debris. Dispose of wastepaper, empty cartons, garbage and scrap material.
- ✦ Clean up anything that is spilled on the floor as soon as possible.
- ✦ Keep aisles and walkways clear of all obstructions.
- ✦ Store materials neatly and keep them away from traffic areas.
- ✦ At the end of each phase of work, return all tools and excess material to proper storage. Clean up all debris before moving on to the next phase. Each employee is responsible for keeping work areas clean.
- ✦ Use nonflammable containers for disposing of scrap and waste substances. The containers should be located at convenient places.
- ✦ Know the locations of first aid and firefighting equipment. Keep the route of access to this equipment free of debris.
- ✦ Plastic bottles, scraps, paper cups, and similar rubbish shall be placed by trades' employees in trash containers for that purpose. No glass containers onsite.
- ✦ Rubbish, debris and waste materials shall be removed from the work area daily by trade's employees. Form and scrap lumber with protruding nails shall be kept clear from all work areas.

Each jobsite has specific recycling containers onsite. Be sure you are disposing of debris in the proper receptacles at all times.

Housekeeping is an important part of daily work. The jobsite must be kept clean and neat, and free from tripping hazards.

Fire hazards will also be reduced.

Signature

Date



9.18 OSHA Inspections

If OSHA visits a RALIN project, be courteous and helpful. Do not be argumentative or confrontational.

An OSHA Inspector may visit your job for one of five reasons:

1. Imminent Danger.
2. To investigate a serious event or death.
3. In response to complaints filed by individuals.
4. By random selection.
5. Re-inspection.

Explain to the OSHA representative that we will provide access as soon as notification is made to the corporate office and corporate safety manager.

9.18.1 Procedures

1. Refer the OSHA compliance officer arriving on the site to the company's Management Representative.
2. After verifying the compliance officer's official credentials, the superintendent should immediately notify the Safety Manager that an OSHA official has arrived to perform an inspection. OSHA will allow a reasonable period of time for the corporate representative to come to the jobsite.
3. Notify company counsel or corporate management representative of the inspection.
4. The superintendent should request to examine the Inspector's credentials as well as obtain his or her business card with an address and phone number to ensure that he is a representative of the Department of Labor.
5. No employees, other than the Management Representative, or Safety Manager should communicate with the OSHA compliance officer prior to conducting the opening conference.
6. Determine from the compliance officer what the purpose, scope and circumstances is for the visit. If based on a complaint, get a copy of the complaint.
7. Ensure the OSHA officer wears all necessary personal protective equipment and follows all company safety policies.

9.18.2 Inspection

1. The Inspector will designate the personnel he desires to accompany him. It could be a representative of the general contractor, as well as trades, and one or more employee representatives.
2. The superintendent and/or safety manager or safety field manager should stay with each OSHA officer at all times during the inspection except during employee interviews.
3. During the inspection a camera that has the imposed date on the pictures should be taken. The superintendent should take any photographs taken by the inspector simultaneously, preferably from the same angle(s) and video also should be utilized, if used by the compliance officer.
4. During the inspection all violations noted by the inspector should be corrected immediately to the compliance officer's satisfaction. Do not acknowledge the validity (good or bad) of any recognized violations.
5. If the inspection is related to a complaint, the compliance officer should only visit the areas involved in the complaint.
6. If the compliance officer deviates from areas covered by a complaint, inquire as to why there is a deviation.



7. All personnel shall be allowed to speak with regulating officials during an event such as this in a private conversation.
8. The compliance officer should be asked to put all requests for company information and/or documents in writing.
9. Document all samples or monitoring test taken by the OSHA compliance officer and request copies of all sampling and monitoring results as well as all photographs and videos taken. The company should request the compliance officer to schedule sampling and monitoring at a time when the company can conduct its own sampling and monitoring.
10. Request copies of all OSHA sample and monitoring reports from the compliance officer.
11. All work rules and safety procedures should be enforced and applicable to the compliance officer and walk-around team during the inspection.
12. You are not required to release any piece of equipment, tool, or other possible evidence to OSHA. If they want to take any evidence with them, contact the president of RALIN.

Signature

Date



9.19 Distracted Vehicle and/ or Equipment Operator, Worker Policy

This policy applies to all RALIN employees and all personnel on RALIN project sites. In addition, RALIN's Fleet Management Program (included in this EHS Program) requirements apply to all RALIN employees.

ALL personnel are authorized to prevent or stop any unsafe act affecting any personnel, facilities or assets related to RALIN business with the full endorsement of RALIN management.

The purpose of this policy is to promote a safe and productive work environment and increase public safety. RALIN understands and appreciates that employees utilize digital devices for business purposes. Often, use occurs while operating vehicles (or equipment) and working/walking in hazardous areas. The primary responsibility of an employee is to operate vehicles (equipment) and/or work in hazardous fast paced environments, safely and free from distractions so as to minimize the risk to themselves and those around them.

Georgia law dictates:

While operating a motor vehicle on any highway of this state, no individual shall:

- Physically hold or support, with any part of his or her body a:
 - Wireless telecommunications device, provided that such exclusion shall not prohibit the use of an earpiece, headphone device, or device worn on a wrist to conduct a voice-based communication; or
 - Stand-alone electronic device;
- Write, send, or read any text-based communication, including but not limited to a text message, instant message, email, or Internet data on a wireless telecommunications device or stand-alone electronic device; provided, however, that such prohibition shall not apply to:
- A voice-based communication which is automatically converted by such device to be sent as a message in a written form; or
- The use of such device for navigation of such vehicle or for global positioning system purposes.
- Watch a video or movie on a wireless telecommunications device or stand-alone electronic device other than watching data related to the navigation of such vehicle; or
- Record or broadcast a video on a wireless telecommunications device or stand-alone electronic device; provided that such prohibition shall not apply to electronic devices used for the sole purpose of continuously recording or broadcasting video within or outside of the motor vehicle.

Aforementioned rules do not apply when the prohibited conduct occurred:

- While reporting a traffic accident, medical emergency, fire, an actual or potential criminal or delinquent act, or road condition which causes an immediate and serious traffic or safety hazard;
- By an employee or contractor of a utility services provider acting within the scope of his or her employment while responding to a utility emergency;
- By a law enforcement officer, firefighter, emergency medical services personnel, ambulance driver, or other similarly employed public safety first-responder during the performance of his or her official duties; or
- While in a motor vehicle which is lawfully parked.



RALIN policy dictates:

All personnel will refrain from:

- Using any distracting device or practice while working or operating (vehicles and/or equipment) on RALIN project sites.
- Using RALIN owned devices where distractions affect driving or operating equipment (RALIN owned or not).

No heavy or powered equipment will be operated while using any device other than those designed by the manufacturer to accompany the equipment (headset communications, etc.).

Mobile phones shall be turned off or set to silent or vibrate mode during meetings, conferences and in other locations where incoming calls could be disruptive.

In office environments, employees may use personal cell phones while at work on a sporadic basis. If employee use of personal cell phones causes disruptions or loss in productivity, the employee may become subject to disciplinary action.

Unless a hands-free device is being used, employees are required to move to a safe location and place the vehicle in "Park" before placing or accepting a call.

Any action that could compromise the ability of a driver to operate a vehicle, or piece of equipment, in the safest and most responsible manner is prohibited.

The following list contains examples of potential distractions.

Mobile Phone	Radio	Audio Player	GPS
Eating	Reading	Camera	Mobile Computer
Headphone	Bluetooth Device		

In the event of an emergency that presents medical or imminent danger to personnel, use of devices is authorized. Situational awareness to avoid additional hazards is required during the response to such an emergency.

On project sites, employees may use cell phones while in break areas established by the employee's supervisor, foreman or project manager during non-work hours. If employee use of personal cell phones causes disruptions or loss in productivity, the employee may become subject to disciplinary action or removed from the project site.

On project sites, RALIN and trade supervision are authorized to use devices intended for communications (e.g., e-mail, text, or voice) for work-related tasks in a safe and responsible manner (e.g., parked vehicle, safe area where distraction is not a hazard) only.

Non-supervisory workers using verbal communication (walkie-talkie type) capabilities to coordinate/ execute work onsite may do so with prior documented approval from their supervisor and the RALIN onsite superintendent.

Employees who are charged with traffic violations resulting from distracting practice(s) while driving will be solely responsible for all liabilities that result from such actions.

All personnel are expected to adhere to this policy and failure to comply may result in disciplinary action such as/but not limited to removal from a project site and/or termination of employment.



DISTRACTED VEHICLE AND/OR EQUIPMENT OPERATOR, WORKER

POLICY ACKNOWLEDGEMENT

I, _____ acknowledge receipt of the RALIN policy regarding distracted vehicle and/or equipment operator, worker practices. I agree to be bound by and comply with such policy.

Signature

Date



9.20 “Hot” Work

“Hot” Work permits are required to perform work classified as such on RALIN projects.

“Hot” work is any work that involves burning, welding, using fire- or spark-producing tools, or that produces a source of ignition.

All “hot” work requires that a “hot” work permit be completed and approved prior to the work being performed daily.

9.20.1 Oxygen and Acetylene Cutting Torch Safety

Each manufacturer suggests different gauge pressure settings according to the different types of tips and gases used.

The normal setting on a #2 tip with Victor gauges and torch set is:

- ✦ 40 PSI Oxygen
- ✦ 10 PSI Acetylene

Torch tip has (6) openings around the outer edge and (1) opening in the center. The outer edge is for preheating the metal.

The center opening is for cutting the metal.

There are (4) basic gases for cutting metals:

- ✦ Acetylene
- ✦ MAPP
- ✦ HEF (High Energy Fuel)
- ✦ Natural Gas, Propane, etc.

Acetylene is the hottest gas (5600 degrees F) while Natural gas is the coldest gas (4500 degrees F)

All gauges have a red line on the acetylene gauge that should never be exceeded.

Acetylene is unstable at 15 PSIG (Pounds per square inch at the gauge).

99% of all metals being cut are 1/8" to 1-1/4" in thickness. A #1 or #2 tip should be adequate for these types of cuts.

9.20.2 Acetylene Use

An acetylene cylinder is actually a porous material in the tank saturated with acetylene to make acetylene a stable gas to use in cylinders, which are pressurized above 15 PSIG (generally 250 PSIG in the tank).

An acetylene cylinder cannot have more than 1/7 of its capacity consumed within a short period of time or the acetylene will begin to separate from the porous material within the tank and mix with the acetylene gas as it exits the tank.

Never lay an acetylene cylinder on its side.

If the cylinder is laid on its side, the cylinder must be placed in an upright position (vertical) immediately with no further interaction for 24 hours. WARNING – Opening or closing valves can cause serious injury after a tank has been up-righted due to unstable gas states inside the tank.



9.20.3 Oxygen Use

Oxygen is 99% pure in order to mix properly with gases when cutting.

An oxygen tank is generally filled to 2,200 – 2,400 PSIG.

Never blow clothing off with oxygen because oxygen will actually stick to clothing for several minutes and can be ignited very easily.

9.20.4 Valves / Regulators

Never oil the o-rings in the regulators.

Oxygen and oil do not mix and will cause heat of recompression and can explode.

Two sides to regulators:

- ✦ High Pressure (tank)
- ✦ Low Pressure (torch)

9.20.5 Lighting the Torch

Always stand with the regulator between you and valve on the tank

Always back out the adjusting screws on the regulators before opening the valves.

Always open the valve slowly at first.

Turn the oxygen tank valve approximately 4-6 turns.

Always purge the torch before lighting.

Never light the torch with a cigarette or butane lighter. There is enough gas in a single butane lighter to explode and seriously injure you.

Remember when oxygen and acetylene mix, they create a temperature of approximately 5,600 degrees F instantly.

Always use an appropriate striker to light a torch.

Always adjust the torch for a good neutral flame to cut material.

9.20.6 Turning Off the Torch

Always turn off the fuel side first...then the oxygen side.

Three steps to turn off a torch

- ✦ Shut off tanks
- ✦ Bleed off lines, back-off adjusting screws
- ✦ Turn off torch head

If gauges do not fall to zero, then there is a leak.



9.20.7 General Safety Tips

A "rose bud" heating tip will cause the consumption of more than 1/7 the capacity during a short period of time.

Different size tips require different amounts of PSIG - never exceed 15 PSIG.

Three items to start a fire:

- ✦ Ignition
- ✦ Fuel
- ✦ Oxygen

Never transport cylinders without safety caps in place. When changing cylinders:

- ✦ Disconnect gauges
- ✦ Assure safety caps are in place
- ✦ Untie cylinder from cart
- ✦ Remove and store empty cylinders in secured upright position
- ✦ Oxygen and fuel cylinders must be separated by 20 feet or by a 1/2-hour fire rated wall that is 5 feet high.
- ✦ Cylinders must be secured on a truck, cart, or other device while in use and must always remain upright.

Signature

Date



9.21 Excavation / Trenching Safety

For all excavations or trenches more than five feet in depth, slope the sides of the excavation or trench, 1.5 horizontal to 1 vertical, unless a competent person classifies the soil and determines that this is not necessary. Other alternatives are to use shoring or a trench box.

Slopes for **ALL** trenches greater than twenty feet deep must be designed by a registered professional engineer.

In trenches deeper than four feet, a means of exit, such as ladders or steps, must be no more than twenty-five (25) feet of travel from any employee in the trench.

A competent person is defined as:

- ✦ One who is capable of identifying existing and predictable hazards in the surrounding, or working conditions that are unsanitary, hazardous, or dangerous to employees. One who must have training in and be knowledgeable about soils analysis, protective systems and Subpart "P"; **and**
- ✦ Has the authority to take prompt corrective measures in order to eliminate hazards.

A competent person must inspect the trench, adjacent areas, and any protective systems for possible cave-ins, failure of protective systems, hazardous conditions. Inspections must be performed daily before work begins and after every rainstorm or other hazard increasing occurrence.

A Competent Person must inspect and approve all excavations and/or trenches PRIOR to any employee entering any excavations and/or trenches.

Signature

Date



9.22 Electrical Safety

The following regulations apply to electrical installation used on the job site, both temporary and permanent:

- ✦ Extension cords used with portable electrical tools and appliance shall be of three-wire types. Grounds are never to be removed from the extension cords.
- ✦ Temporary lights shall be equipped with guards to prevent accidental breakage and/or incidental contact with the bulb.
- ✦ Temporary lights shall not be suspended by their electric cords unless cords and lights are designed for this means of suspension.
- ✦ Splices of any kind are not allowed. Electrical tape is not an equivalent replacement for the exterior sheathing.
- ✦ Electrical and extension cords or cables should not be laid on floors, in walkways, etc., unless it is impractical to do otherwise. They should be suspended or secured in such a way as not to block or hang in walkways, hallways, doorways, or work areas.
- ✦ Panel boxes shall always have a locked (by the project's contracted electrician) cover on them, except when being serviced by a qualified electrician.
- ✦ Lock-out/tag-out procedures will always be followed.
- ✦ **"DANGER - HIGH VOLTAGE"** to denote live current.

Follow these basic safety procedures when using electrical extension cords:

- ✦ Visually inspect the cord for damaged and exposed conductors. If the cord is in damaged condition, don't use it.
- ✦ Inspect to make sure the ground prong is in good condition and the cord provides a satisfactory ground for the electrical tools being used.
- ✦ Don't drag cords over rough surfaces and don't use them to lift or pull materials.
- ✦ Disconnect electrical cords at the receptacle.
- ✦ Any energized outlet/switch must have a hard cover plate, temporary or otherwise.
- ✦ Don't string electrical cords through water or oil and grease. Also, don't hammer nails or staples into cords.
- ✦ When not in use, the electrical cord should be neatly rolled-up and stored.
- ✦ Only round cords that are rated for heavy duty use are allowed on the jobsite. Never use flat power cords on a jobsite.
- ✦ Always use GFCI electrical outlets and/or GFCI "pigtails".

Signature

Date



9.23 Confined Spaces

Confined Space:

- ✦ Is large enough or so configured that an employee can bodily enter and perform work.
- ✦ Has limited or restricted means for entry or exit (tanks, pipes, manholes, vaults, trenches, and pits are spaces that may have limited means of entry).
- ✦ Is not designed for continuous employee occupancy.

Permit Required Confined Space (PRCS):

Permit required confined space (permit space), is 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 covering walls or by a floor, which slopes downward and tapers to a smaller cross-section.
- ✦ Contains any other recognized serious safety or health hazard.

Each Permit-Required Confined Space will be marked "Confined Space - Entry Permit Required"

All employees required to enter confined or enclosed spaces must be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of required protective and emergency equipment. The employer shall comply with any specific regulations that apply to work in dangerous or potentially dangerous areas. Confined or enclosed spaces include, but are not limited to, storage tanks, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, and open top spaces more than four (4) feet deep such as pits, tubs, vaults, and vessels. [1926.21(b)(6)(i) and (ii)]

A brief set of rules for confined spaces:

- ✦ Do not enter a confined space unless you have been formerly trained to do so. Training documentation must be current, on site and available for review.
- ✦ Entering any confined space without the knowledge of the site superintendent will result in the violating employee being removed from the site for 24 hours.

Signature

Date



9.24 Jobsite Safety Rules

1. Work can only take place when there is at least one RALIN employee on site.
2. Access to this site is restricted to employees and those authorized by RALIN
3. Smoking is authorized in the project's designated smoking area only.
4. No project related employees may use the same facilities (restrooms, vending machines, etc.) as the client's occupants.
5. Use and/or possession of intoxicants, alcohol, or drugs are strictly prohibited.
6. Hard hats and high visibility vests or shirts (outermost clothing) shall always be worn by all employees and visitors.
7. Hard soled shoes are required. No tennis shoes. Long pants and shirts with 4" minimum sleeves are required at all times.
8. Eye protection, ear protection, and respiratory protection devices will be worn when required.
9. Full body harness, shock-absorbing lanyards, or other fall protection measures will be utilized when working at unprotected heights. (above 6' tie off)
10. No glass containers allowed onsite.
11. No audible music devices, CD players, radios, or earphones allowed onsite.
12. Only authorized personnel are permitted to operate equipment and/or vehicles.
13. All machinery must always have operable backup alarms.
14. No riders on machinery or equipment. Seat belt use is always required. No riding in back of pickup bed.
15. No one shall enter a trench or excavation unless it is properly sloped, shielded or shored.
16. Only trained, qualified operators will use powder-actuated tools.
17. All ladders will be secured, top and bottom (to prevent movement against the heaviest anticipated load). Always face ladders when going up or down.
18. Safety rails should always be maintained in all openings, stairways, and at the building perimeter.
19. Flammable liquids must be kept in approved containers.
20. Know where safety data sheets (SDS) for chemical safety hazards are on the jobsite.
21. A complete first aid kit is available in the field office.
22. Report all events, unsafe conditions and/or practices to your supervisor or to RALIN immediately.
23. The use of cell phones is not permitted on site for non-supervisory workers during working hours. Supervisors are permitted to utilize cell phones for work related issues only. No one is permitted to use cell phones while physically performing work or operating equipment on site. Cell phones may be used in the event of an onsite emergency.

I have read and fully understand the above rules of the jobsite.

Signature

Decal #

Date



9.25 Normas de Seguridad Laborales

1. El trabajo sólo puede tener lugar cuando hay al menos un empleado de RALIN en el sitio.
2. Acceso a este sitio está restringido a los empleados y los autorizados por RALIN y Associates, Inc.
3. Fumar está autorizado sólo en zona de fumadores del Proyecto.
4. Ningún empleado relacionado con el proyecto puede utilizar las mismas instalaciones (baños, máquinas expendedoras, etc.) que los ocupantes del cliente.
5. El uso o posesión de drogas, alcohol o sustancias intoxicantes está estrictamente prohibida.
6. Cascos deberán ser usados por todos los empleados y visitantes en todo momento.
7. Duro soled zapatos son necesarios. Sin zapatos tenis. Pantalones largos y camisetas con mangas mínimo 4 "se necesitan en todo momento.
8. Protección en los ojos, protección de oído y dispositivos de protección respiratoria serán usados cuando sea necesario.
9. Arnés de cuerpo completo, absorción de sacudidas cintas u otros caen cuando se trabaja en alturas desprotegidos, se utilizarán medidas de protección (6' y encima).
10. Envases de no permitieron en el sitio.
11. No hay dispositivos digital, reproductores de CD, radios, platinas o auriculares permitieron en el sitio.
12. Sólo el personal autorizado está permitido a operar equipos y vehículos.
13. Las máquinas deben tener operable alarmas de copia de seguridad en todo momento.
14. Sin corredores en maquinaria o equipo. Uso del cinturón de seguridad es necesario en todo momento. Ningún caballo detrás de cama recogida.
15. Nadie entrará una zanja o excavación a menos que sea correctamente inclinado, blindado o preeminencia.
16. Sólo los operadores capacitados, calificados utilizará herramientas powder-actuated.
17. Escaleras todos serán garantizados, superior e inferior. Siempre escaleras cara cuando va hacia arriba o hacia abajo.
18. Rieles de seguridad deben mantenerse en todo momento en todas las aberturas, escaleras y en el perímetro del edificio.
19. Líquidos inflamables deberán mantenerse en contenedores aprobados.
20. Estar alerta de los peligros de seguridad química en la jornada.
21. Un Botiquín completo está disponible en la Oficina de campo.
22. Informar todos los accidentes, condiciones inseguras y prácticas a su supervisor o a RALIN y Associates, Inc. inmediatamente.
23. El uso de celulares no es permitido en el sitio de trabajo durante los horarios de trabajo. Supervisores solamente son permitidos utilizar sus celulares para propósitos de problemas asociados con el trabajo. Nadie es permitido usar celulares mientras están físicamente trabajando o si están operando equipo en el sitio de trabajar. Celulares pueden ser usados si ocurre una emergencia en el sitio de trabajo.

He leído y comprender plenamente las reglas anteriores de la jornada.

Firma

Decal #

Fecha

9.27 COVID-19 (44.10 Toolbox Talk on Exposure to the Coronavirus)

Here are the important things you need to know about COVID-19:

Symptoms

Coronavirus disease (COVID-19) is characterized by mild to severe symptoms which may include:

- ✦ Cough
- ✦ Shortness of breath or difficulty breathing

Or at least two of these symptoms:

- ✦ Fever
- ✦ Chills
- ✦ Repeated shaking with chills
- ✦ Muscle pain
- ✦ Headache
- ✦ Sore throat
- ✦ New loss of taste or smell

More rarely, the disease can be fatal. Older people, and people with other medical conditions (such as asthma, diabetes, or heart disease), may be more vulnerable to becoming severely ill.

How is it Spread

The main way that the virus is spread is through Person-to-person contact. Transmission typically occurs when someone with the virus sneezes or coughs on you, leaving respiratory droplets on your skin or clothing, or you touch someone who has the virus or their skin or clothing.

It can also be from touching an area where someone sneezed or coughed in a common area. When you touch these areas and then touch your face; this gives the virus an entry point via your mouth.

Best Practices for Control

- ✦ Do not report to work if you are sick or have COVID-19 symptoms
- ✦ Maintain 6' physical distance from other workers and avoid any prolonged contact
- ✦ Avoid large gatherings of 10 or more
- ✦ Always wear a cloth face covering per the CDC when working around others on site
- ✦ Do not share tools or equipment
- ✦ Wash hands frequently for 20 seconds or use hand sanitizer with at least 60% alcohol content
- ✦ Cover coughs and sneezes and wash hands afterwards
- ✦ Avoid touching your face



The website below is also a good tool for more information on the virus.

<https://www.cdc.gov/coronavirus/2019-ncov/index.html>

Signature

Date



9.27 RALIN Safety Orientation Package

I have been visually and/or verbally oriented and/or trained on all Company and jobsite safety rules and/or policies. These rules and policies include, but are not limited to the following:

- ✦ Safety Program Acknowledgement
- ✦ Drone Safety
- ✦ Occupied Sites
- ✦ Fall Protection Safety
- ✦ Fire Extinguisher Training
- ✦ Silica Program
- ✦ Hazard Communication Certificate
- ✦ Emergency Plan
- ✦ Employee Discipline Notice
- ✦ Scaffold Training
- ✦ Ladder Safety
- ✦ Eye Protection Policy
- ✦ Substance Abuse and Drug / Alcohol Testing Policy
- ✦ Event Reporting
- ✦ Multiple Injury Policy
- ✦ Housekeeping / Clean-up
- ✦ OSHA Inspections
- ✦ Distracted Vehicle and/or Equipment Operator, Worker Policy
- ✦ "Hot" Work
- ✦ Excavation / Trenching Safety
- ✦ Electrical Safety Questions / Comments: _____
- ✦ Confined Spaces
- ✦ Jobsite Safety Rules
- ✦ COVID-19

Signature

Date

Instructor's Name (Legibly Printed): _____

Instructor's Signature: _____

Date of Instruction: _____



Section 10 - JOBSITE START-UP

10.1 Jobsite Safety Survey

Review the plans and site for any potential unsafe conditions. This review shall be performed by the project manager (with assistance from RALIN safety personnel) and should include a thorough review of deep excavations, unprotected openings, all fall hazards, access to the site by non-employees and visitors, means and methods of construction, and specified materials, as well as any other potentially unsafe conditions. Safety procedures, including scheduled inspections, should be developed for each potentially unsafe condition identified and documented within a site-specific safety plan (SSSP).

In the project's initial stages (prior to mobilization), a project safety evaluation should be performed and incorporated within the SSSP. Some items to consider:

- Emergency routes;
- Location of Fire Stations;
- Location of Clinics and/or Hospitals;
- Emergency phone numbers;
- Key Personnel Phone Numbers;
- Perimeter site security fence;
- Traffic control requirements;
- Confined Spaces;
- Storm water control;
- Overhead / underground power and utility lines; and
- Special Training Requirements,
- Etc.

10.2 Jobsite Bulletin Board

On the first day of mobilization, a covered jobsite bulletin board must be established and placed in plain view of all employees.

The following information is mandatory and must be posted for the duration of the jobsite:

- Occupational Safety and Health Poster
- Equal Employment Opportunity Commission Poster
- Company EEO Poster or Policy
- E-Verify Participation Poster
- Right to Work Poster
- Wage and Hour Division, U.S. Department of Labor Poster
- Panel of Physicians (Providers verified prior to posting; specific to state requirements)
- Bill of Rights
- Inventory of Confined Spaces on Site
- OSHA 300 Form (if the job duration is expected to exceed one year; February 1st to April 30th annually)
- Any Other State or Local Government Posting Requirements
- Emergency Phone Numbers (such as 911 and local non-911 emergency numbers):
 - 911
 - Fire Services



- Police Services
 - City and County
- Governments
 - Water Utility Company
 - Gas Utility Company
 - Power Utility Company
- Safety Data Sheets (SDS) with a Hazardous Chemicals Inventory List
- Weekly 1st Aid Inspection Sheet (next to First Aid Kit)
- Emergency Plans, see Emergency Preparedness section of this EHS Program
- Safety Response Matrix, see Safety Response Matrix section of this EHS Program

Other recommended items for the jobsite bulletin board are safety posters and any pertinent jobsite safety information.

10.3 Jobsite Signs

The following signs should be posted on the jobsite:

- DANGER – PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER
- Twenty-One (21) Posted Safety Rules (English and Spanish)
- Reasonable Search Policy
- Alcohol & Substance Abuse Policy
- No Trespassing
- Hard Hat Area
- Exit
- No Exit
- First Aid Station
- Emergency Notification Plan
- Visitors Must Sign in at Office
- No Firearms, Drugs, or Alcohol Allowed Onsite
- No Smoking
- Designated Smoking Area
- Safety Data Sheets (SDS)

Remember that posters, signs, training, and other communications need to be done in a manner and/or language that every employee can understand.

10.4 First Aid Kit

A first aid kit must be established to meet OSHA standards. The First Aid kits should be kept in the job office (trailer). A First Aid Kit Inspection (weekly) Form must be posted near the cabinet. The inspection sheet may be posted on the first aid kit so no portion of the words "First Aid" are covered by doing so.

Any items considered to be medicine may be included but only retrieved by the employee that wishes to use the medicine. Under no circumstances, will an employee be required by their employer to consume medicine on any RALIN project. This medicine is provided only for an employee's convenience and will be consumed at that employee's own discretion and risk.



The following are examples of medicine:

Aspirin (or similar Pain Relievers)	Antacids	Cough Medicine
Decongestants or Cold Tablets	Pre-Cramp Tablets	Etc.

Per OSHA recommendations and at a minimum, the 1st Aid kit must contain:

Item and Minimum Size or Volume	Minimum Quantity
Absorbent Compress, 32 sq. in. (No side smaller than 4")	1
Adhesive Bandages, 1" x 3"	16
Adhesive Tape, 5 yards	1
Antiseptic, .5g Application	10
Burn Treatment, .5g Application	6
Medical Exam Gloves	2 Pair
Sterile Pads, 3" x 3"	4
Triangular bandage, 40" x 40" x 56"	1

Only materials to be used in first aid treatment should be stored in the First Aid kit. Anyone removing supplies from the First Aid kit should document on the "First Aid Kit Inspection" what needs to be replenished. A copy of the inspection form may be requested from the RALIN corporate safety manager via safety@ralinconstruction.com.

All jobsites and offices of RALIN shall have at least one person adequately (and currently) trained in First Aid and CPR and Bloodborne Pathogen. If an Automated Emergency Defibrillator (AED) is available for use, then at least one person adequately (and currently) trained to use an AED must also be available.

10.5 Routine Project Safety Tasks

The "[Company Forms](#)" section of this EHS program provides a list of forms and routine documents, forms, and/or inspections expected to be actively documented and maintained per need.



Section 11 - TRADE MANAGEMENT PLAN

11.1 Trade Qualification (Pre/Post)

11.1.1 Pre-Qualification

All trades (synonymous with the word “sub-contractors” in the RALIN EHS Program) proposing work on a RaLin & Associates, Inc. dba RALIN project are subject to an evaluation relative to safety prior to receiving a final award of work.

11.1.2 Metrics for Evaluation / Pre-Qualification

Conventional Metrics such as Days Away, Restricted or Transferred (DART), Experience Modification Rate (EMR) and Total Recordable Incidence Rate (TRIR) will be compared to industry averages to establish potential safety risks in the procurement of an additional trade.

Safety metrics are lagging indicators and do not reflect current safety culture but provide a potential indicator of potential trends of safety behavior for a company’s performance on projects. Unfavorable safety performance and metrics will be addressed with supporting documentation and discussions between RALIN and the trade in question.

The following is a list of items to be specifically evaluated but is not considered to be an exhaustive list of what may be considered.

- Safety Culture
- Safety Administration Structure
- Safety Programs
- Safety Training Documents
- Safety Statistics (e.g., DART from OSHA 300, MSHA 7000-2, etc.)
- Known Historic Safety Performance

After evaluating the above items, trades will be notified of a final award, a denial of final award or a partial award with a limited scope of work appropriate to ensure a safe workplace on all RALIN projects for all personnel.

11.1.3 Post-Project Safety Performance Reviews

After trades complete work, and prior to final payment, a post-job safety performance review will be held with key trade supervision and RALIN’s corporate safety manager to establish any improvements conducive to an enhanced RALIN Environmental, Health and Safety Program.

In addition, a Trade Safety Performance Review will be completed, signed, and filed within RALIN’s trade safety program files.

All parties will be encouraged to benefit from lessons learned during the execution of the project in order to provide the safest possible work environment for future work.



11.2 Trade's Schedule "E"

The following is a copy of the Contractor's Accident Prevention Program for all Trades. This exhibit is a part of every trade's contract.

SCHEDULE "E"

CONTRACTOR'S ACCIDENT PREVENTION PROGRAM FOR TRADES

THIS PROGRAM IS MADE AVAILABLE TO YOU IN ACCORDANCE WITH THE SAFETY CLAUSE OF YOUR SUBCONTRACT. ALL OR PARTS OF THE CONTENTS OF THIS PROGRAM WILL APPLY TO YOUR WORK DEPENDING ON THE NATURE OF YOUR WORK AND THE SEQUENCE OF YOUR WORK.

SAFETY TRAINING SESSIONS

All trades shall attend periodic supervisory safety training sessions held by the general contractor's superintendent or his designated representative (at least monthly).

Each trade's foreman shall hold weekly "toolbox" safety training session with their own personnel to encourage employees' interest in safety and to give specific safety instructions relative to existing or expected hazards. Notes and minutes of these training sessions shall be recorded, with "sign-in" sheets and submitted to the general contractor's superintendent and/or main office.

ACCIDENT PREVENTION RESPONSIBILITY

Full responsibility for enforcement of the Accident Prevention Program belongs to the general contractor's superintendent in charge, who in turn is responsible to the project manager of the general contractor. Trades will be responsible to the general contractor's superintendent for compliance with the program and any specific jobsite safety requirements required by the general contractor's superintendent.

ADVANCE ANALYSIS

Before starting work on any job, the trade shall make a complete analysis of the plans and specifications in order to determine the exposure to accidents, which may develop on the jobsite. With this information, the trade will be able to make plans to control all exposures before contributing to an accident or loss.

SAFETY INSTRUCTIONS WITH WORK ASSIGNMENTS

Any trade's employee of whatever supervisory level, upon assigning work to any man or group of men, will in each instance give enough caution with the assignment to adequately provide safety in the operation. This same principle will apply when changing personnel from one work area to another. Hazardous chemicals will be discussed with guidelines on use and protective equipment required.

FIRST AID

Adequate first aid supplies shall be maintained by the subcontractor. These should be stored in a special kit or box. Treatments shall be administered by the most qualified person appointed by the subcontractor, preferably someone who has completed a Red Cross first aid training course.

ACCIDENT INVESTIGATION AND REPORTING

All accidents shall be investigated by the trade and reviewed by the general contractor's superintendent.

The trade will prepare a written report on all accidents to be turned in to the superintendent within twenty-four (24) hours. Report forms shall be provided by the trade or the general contractor's superintendent. A copy of this report will be forwarded to the general contractor's main office. **In all cases other than first aid, the state specific First Report of Injury form provided by the state (or the applicable state) shall be completed.** The copy retained



at the jobsite shall note the action taken to prevent a recurrence. The general contractor's superintendent is to be furnished copies.

PROTECTIVE EQUIPMENT

The protective equipment to be furnished by the trade to his employees shall be determined by the advance analysis of the job and by conditions that occur as the work progresses. However, on all jobs the following protective equipment shall be the minimum:

1. Safety goggles or face shields shall be issued to employees who are engaged in chipping, grinding, or performing any operations where they are exposed to eye hazards. Eye Protection must bear the "Z87" stamp.
2. Welders' hoods and face shields must be worn only by attaching them to hard hats.
3. Hard hats are to be worn throughout the jobsite, always, from start to finish of the job.
4. The trade shall require his employees to wear hard soled work shoes in good condition.
5. Life preservers shall be provided and shall be worn by all employees wherever working over water.
6. Hearing protection shall be worn when work involves or is near abnormal noise levels.
7. The trade is responsible for enforcing the use of protective equipment worn by its employees.

THE FOLLOWING PROGRAM ITEMS ARE NOTED AND LISTED FOR SPECIAL EMPHASIS SINCE THEY USUALLY CREATE THE MOST HAZARDOUS CONDITIONS AND ARE MOST LIKELY TO BE CITED BY OSHA.

HOUSEKEEPING

Plastic bottles, scraps, paper cups, and similar rubbish shall be placed by trades' employees in trash containers for that purpose. No glass containers onsite.

Rubbish, debris and waste materials shall be removed from the work area daily by trade's employees. Form and scrap lumber with protruding nails shall be kept clear from all work areas.

Stairways, ladders, ramps, platforms, walkways, and work areas shall be kept clear and clean of loose material and trash by trade's employees.

All material must be kept back from the outer edge of a building a minimum of 10'-0" at building perimeter and 6'-0" at interior floor openings.

SCAFFOLDS

All scaffolding shall be erected by a competent person. All scaffolding shall be thoroughly checked by the trade's competent person before and after erection and at least daily while in use. All scaffolding must conform to OSHA standards.

All scaffolding over ten feet in height shall be equipped with guardrails and toe boards. Guardrails must support a 200pound thrust.

All scaffolding, other than suspended scaffolding, shall be erected on firm level foundations and shall be braced or guyed to the structure.

Planking shall have at least twelve inches of overlap and extend six inches beyond center of support or be cleated at both ends to prevent sliding off supports. Planking shall be 2 x 10 nominal lumber or greater.

Access ladders permanently secured shall be provided on all scaffolding, and employees will be prohibited from climbing on structural members.

All scaffolding shall have proper access.

Do not ride rolling scaffolds and remove all material from the platform before moving the scaffold.



Workers on a swinging scaffold shall be tied off to the building with a full body harness with an independent lifeline and guardrails. There shall be a safety lifeline for each person.

LADDERS

All ladders shall be inspected weekly. Broken and or damaged ladders shall be removed from service immediately and destroyed. All ladders must conform with OSHA standards.

All straight ladders shall be set on firm level foundations at a four (4) to one (1) pitch, have clear access at top and bottom, extend the landing a minimum of thirty-six (36) inches and be secured (to prevent movement against the heaviest anticipated load) against movement while in use. All ladders shall be secured top and bottom (to prevent movement against the heaviest anticipated load). Safety feet will be used on all straight ladders.

Portable metal ladders shall not be used for electrical work or where they might contact electrical conductors.

Single portable ladders over twenty-four (24) feet in length shall not be used.

A double-gang ladder or two single-gang ladders must be available when twenty-five (25) or more workers must access each elevated working surface above ground level.

FLOOR OPENINGS AND STAIRWAYS

At all unprotected floor openings and stairways, provisions shall be made by the general contractor for barriers and toe boards. These shall remain in place until the openings have been closed or permanent stairs installed. When trades must remove such barriers in the performance of their work, they are responsible for replacing barriers to provide maximum protection at all times.

Never, under any circumstance, cover a floor opening with a piece of plywood, sheetrock, or other unsuitable material. All floor coverings must support a minimum of 500 lbs. or twice their intended load, whichever is greater. All floor openings must be marked with the word "Hole" or "Cover" and fully secured.

FIRE PROTECTION

Gasoline or other flammable liquids shall be stored in UL approved safety containers and properly labeled.

Approved heating devices shall be properly insulated to prevent setting fire to adjacent structures.

Fire extinguishers shall be selected by the trade based on type of fire anticipated. Extinguishers, fire barrels, sand pails, hose lines, etc. shall be located where they are readily accessible and easily visible.

Do not smoke or use an open flame, exposed heating element or any other sources of ignition in areas or rooms where spray painting is done.

A fire extinguisher shall be adjacent to all stairwells and within reasonable of travel distance at all times.

A serviceable fire extinguisher will be staged within 10 feet of welding operations.

A serviceable fire extinguisher will be staged within 10 feet of generators providing temporary power for construction purposes.

POWER TOOLS

Provisions shall be made on each jobsite for the grounding of all fixed and portable electrical tools and equipment.

It shall be the responsibility of the trade to ascertain that all power saws and grinders in use are provided with the proper guards.

Power saws shall be operated only by authorized and qualified personnel.

All extension cords shall be of the rounded type utilizing twist lock connections rated for heavy duty use.



Faulty electrical cords and cord sets (extension cords) shall be removed from service immediately.

POWDER ACTUATED TOOLS

Low velocity pistol type tools with a pistol grip shall be used in all cases where applicable.

High velocity tools shall be used only for those applications where low velocity tools will not meet job requirements. When a high velocity tool is no longer required, it shall be removed from the jobsite.

Powder actuated tools shall be used, operated, repaired, serviced, and handled only by authorized personnel who have been trained and certified by the manufacturer and workers must carry the certified "card". Tools will be tested daily and all defects corrected before use.

Tools shall not be loaded until just in time for use. Loaded tools shall not be left unattended.

Expendable and dud cartridges shall be gathered and submerged in water until disposed of in waste containers.

TRENCHES

The trade shall have an "excavation competent person" onsite during excavation operations.

All soils will be assumed to be type "C" (C80) soil unless classified otherwise with supporting documentation and/or approval from RALIN's safety department.

The sides of trenches five (5) feet or more in depth entered by personnel shall be sloped, shielded, or shored.

At four (4) feet, ladders that extend at least three feet above the edge of the trench shall be located as to require no more than twenty-five (25) feet lateral travel for rapid exit in case of emergency.

All equipment and spoils should be kept a minimum of 2'-0" from the top of slope.

PUBLIC AND PROPERTY PROTECTION

Only authorized personnel shall be allowed on the jobsite.

Barricades and warning lights shall be provided on all open ditches and excavations where there is a public exposure.

Blasting, pile driving, underpinning and similar operations may present special exposures to adjoining or adjacent structures. When such operations are planned, it is important that the trade's foreman or project manager make a preliminary survey of the property to determine if structural defects exist. If such defects exist and there is a possibility of aggravating them, precise pre-construction surveys should be made to establish that the conditions were not caused by our operations but existed before the job started. Depending on the seriousness of the possible aggravations, these surveys

should be made by an independent, qualified professional engineer and may include photographs, which should be made and dated by an impartial commercial photographer.

11.3 Safety Orientation Package Introduction (Trade Supervision)

The purpose of the Safety Orientation Package is to provide awareness to all trades regarding safety policies and procedures of RALIN.

This package includes an overview of RALIN safety policies, which are included in the RALIN Environmental Health and Safety Program.

Any questions regarding safety should be directed to the Jobsite Superintendent.



RALIN values the safety and health of all employees, regardless of the company they work for, and continually promotes training and awareness. We encourage continued feedback to improve our orientation and training programs.

At least one supervisory person onsite, from EACH trade shall attend / review the RALIN Safety Orientation Package PRIOR to start of work on the jobsite.

The trade is responsible for ensuring ALL employees are aware of all governing regulatory agencies' (e.g., OSHA, MSHA, EPA, etc.) and RALIN safety rules and regulations, in addition to training the employee on the trade's safety rules and regulations.

RALIN's Project Superintendent in charge may implement any safety related rule that exceeds regulating agency requirements (OSHA, MSHA, EPA, etc.) or RALIN policy.

11.4 Safety Program Acknowledgement

My signature below certifies that I have reviewed the RALIN Safety Program and Jobsite Safety Rules as outlined in the next section. The Safety Program and Jobsite Safety Rules were either read by me or read to me by an employee of the company. I agree to be guided by the safety instructions issued by my supervisors and will report all unsafe conditions or practices observed on the work site.

I understand that any violation of RALIN safety rules or refusal to comply with federal laws and regulatory (e.g. OSHA, MSHA, EPA, etc.) requirements is grounds for removal from any RALIN project.

I will report all injuries or events to my foreman or supervisor immediately.

If I have a personal injury, I may receive first aid treatment at the jobsite or be sent to a medical facility.

I understand that I may not work on any RALIN project where at least one authorized RALIN OSHA 10 and scope-of-work specific (that is actively occurring during that time period) trained employee is not present.

11.5 Drones (sUAS)

RALIN projects may utilize drones for progress status, inspections, and/or marketing purposes.

The Federal Aviation Administration (FAA) defines drones as "small Unmanned Aerial Systems (sUAS).

A site wide notification system (still under development) will be established to notify all site personnel of ongoing drone flight operations. Workers performing outdoor tasks where a drone is actively in flight shall take precautions to avoid any physical contact with the sUAS.

Drones (sUAS) operate at high speeds (RPM) and may cause serious injuries. Suggested work practices during live drone operations follow:

- DO NOT intentionally interact with the sUAS.
- DO NOT touch the equipment physically or through a physical extension such as an equipment boom, 2x4(s), or thrown objects.
- DO NOT distract the operator for anything other than safety concerns until the drone is on the ground and powered off.



- Be careful of the operator's personal safety if vehicles or equipment must operate in proximity of the operator's piloting location.

While flight altitude should be greater than 20' except for takeoff and landing, establish situational awareness of the location of the operating sUAS if operations are within a visual line of sight.

Any non-RALIN employee or trade must request authorization from RALIN's corporate safety manager for permission to use a drone over or near a RALIN project site or property.

11.6 Occupied Sites

RALIN often performs work on projects where occupants such as the following are present:

- Students
- Client Employees
- Customers of Clients
- Patients

In order to protect all involved parties from any perceived impropriety, all employees must remain within the confines of the project's designated boundaries such as construction limits and parking areas.

REMEMBER

Certain improprieties could result in criminal charges.

In the event of work being performed within a proximity of occupants because of the nature of the work, partitions and barriers will be established to prevent workers and occupants from crossing areas.

No facilities (restrooms, water, vending machines, etc.) will be utilized by both RALIN managed personnel and the client's occupants unless prior approval through RALIN's project manager has been arranged and disseminated.

Where physical barriers may not be feasible, alternative arrangements such as an escort designated by RALIN project management or after normal work hour schedules may be required.

Within this same scope of discussion, SMOKING is only allowed where RALIN's site superintendent has designated a proper designated smoking area or appropriate policy.

RALIN managed employees and trades violating this policy will be removed from the site immediately until disciplinary procedures have been completed.

11.7 Fall Protection Program

11.7.1 Purpose

This program is designed to provide guidance for all RALIN jobsites for establishing procedures to identify, evaluate, and always control falls from elevations. This program focuses on orientation, training, and enforcement to ensure fall protection guidelines are implemented and adhered to by all employees.

The management of RALIN has adopted a Fall Protection Program to eliminate fall events. All levels of management and supervision will be responsible and accountable for ensuring the success of the program by integrating this program into the way of doing business on RALIN sites.



11.7.2 Goal

The goal of this program is to eliminate all falls from elevations by identifying and managing all existing and potential fall exposures.

11.7.3 Responsibility

All levels of management and supervision are responsible for supporting and enforcing this program to ensure 100% compliance by all personnel. Management, estimating, scheduling, and project management personnel are responsible for pre-planning safety into the job by identifying and predicting potential fall exposures both during the preconstruction phase and during construction. Each discipline shall plan safety into the job with priorities placed on engineering solutions to the hazards. Each discipline is responsible for working with architects, consultants, and company safety professionals to design a safe workplace for all employees.

Personal fall protection systems shall only be used as a backup method to primary fall protection systems, such as guardrails, or when there is no other feasible or practical means for safely accomplishing the work.

11.7.4 Accountability

All levels of management and supervision shall be accountable for the safety of jobsite personnel. Jobsite supervision is directly responsible for using the Fall Protection Program to control falls from elevations. Management teams shall have the goal of zero fall-related events for each jobsite. Measurement of performance will consider actual results related to this goal. Management, estimating, and scheduling personnel shall be accountable for pre-planning, designing, budgeting, and scheduling fall protection into each jobsite.

11.7.5 Employee Training

Pre-task safety instruction must be given to each person assigned to work in elevated areas prior to commencing work activities. New hire safety orientation training must be conducted for all new hires immediately upon the beginning of employment. The orientation shall include the company's Fall Protection Program policy, procedures, and work rules. Fall Protection must be included in these meetings on a regular basis or when an upcoming work assignment may involve unusual or non-routine fall exposures. Written documentation of all employees training shall be kept on file.

11.7.6 Procedures

All employees with potential fall exposures, per the applicable regulatory agency's standards (e.g. OSHA, MSHA), will be required to have **fall protection in place and in use**.

Fall protection systems shall include, but are not limited to the following areas:

- ✦ Guardrail Systems
- ✦ Building construction activities
- ✦ Demolition activities
- ✦ Formwork
- ✦ Reinforcing steel deliveries, rigging, erection
- ✦ Concrete placement
- ✦ Structural / miscellaneous steel erection



- ✦ Precast concrete erection
- ✦ Scaffolding / Hoisting activities
- ✦ Scaffolds, aerial lifts and ladders
- ✦ Crane erection / dismantling
- ✦ Hoisting areas including platforms, docks, chutes
- ✦ Floor / Wall penetrations and exposures
- ✦ Elevator shafts
- ✦ Stairways
- ✦ MEP shafts
- ✦ Perimeter edges

All exterior skin installation including, but not limited to, roofing, stone, masonry, waterproofing, and glazing

Fall protection options shall include, but are not limited to, the following:

- ✦ Guardrail Systems
- ✦ Safety nets
- ✦ Full body harnesses
- ✦ Monitoring systems
- ✦ Retractable lifelines and lanyards
- ✦ Vertical and horizontal lifelines
- ✦ Built-in hook points
- ✦ Written plans for fall protection
- ✦ 2 by 4 curb around isolators with marking paint

A Safety Monitoring System or any combination with it will not be allowed on RALIN projects as a fall protection system. Personnel working on traveling powered work platforms or personnel lifting / hoisting devices shall also properly secure their safety lanyards.

Fall protection devices such as lifelines, safety harnesses/lanyards, etc., shall be inspected as required by the manufacturer's safety procedures for damage or deterioration. Defective equipment shall be removed from service and repaired or destroyed. Fall protection devices subjected to shock loading imposed during fall arrest shall be removed from service.

All personal fall protection equipment must meet minimum requirements per the applicable regulatory agency's standards (e.g., OSHA, MSHA).

All contractors and trades shall be responsible for supplying their own fall protection systems and/or equipment.

A site-specific rescue plan must be developed and included as part of the overall Fall Protection Program.



11.7.7 Trade Fall Protection Program and Training

Prior to a trade mobilizing on a jobsite, if the trade will be engaged in leading edge work, precast concrete erection work, or residential construction work (See 1926.501(b)(2), (b)(12), and (b)(13)) who can demonstrate that it is infeasible or it creates a greater hazard to use conventional fall protection equipment shall submit a jobsite specific Fall Protection Program which addresses identifying, evaluating, and protecting employees from elevated falls per the applicable regulatory agency's standards (e.g. OSHA (1926.502(k), MSHA).

Trade shall demonstrate in writing that all of trade's employees have been adequately trained in fall protection.

If trade does not provide an adequate fall protection plan prior to mobilization, trade must comply with the RALIN Fall Protection Program at trade's own expense.

Trade's compliance with RALIN Fall Protection Program must include provisions for enforcement in each trade's subcontract agreement.

11.8 Fire Extinguisher Training

Four things that must be present to maintain a fire:

- ✦ Fuel,
- ✦ Heat,
- ✦ Oxygen, and
- ✦ Chain reactions (take away **any one** of the first three and the fire will go out).

When using a fire extinguisher, one should be upwind from the fire during extinguishing.

Stay back 8' to 10' from a grease fire because the force of the pressure / powder from the fire extinguisher may cause the grease to splatter.

Four classes of fire extinguisher ratings:

- ✦ Wood, paper, plastic,
- ✦ Flammable liquids,
- ✦ Electrical, and
- ✦ Chemical.

PASS is the word used to train people properly to use a fire extinguisher:

- ✦ **P**ull the pin.
- ✦ **A**im extinguisher at base of fire.
- ✦ **S**queeze handle.
- ✦ **S**weep extinguisher from side to side.

Mount fire extinguisher:



- ✦ Minimum of 4" off the floor or walking surface/deck,
- ✦ Top no higher than 60" off floor, and ✦ 40 lb. extinguisher 3'-4' from floor.

Everyone should check the fire extinguisher in work area daily to make sure it has adequate pressure and that the pin is still in the proper place.

A fire extinguisher should be "serviced" once a year.

At each testing, a maintenance tag is placed on the extinguisher to show inspection date.

11.9 Silica Program

The purpose of this program is to ensure the protection of all employees from the hazards associated with Respirable Crystalline Silica in accordance with OSHA guidelines.

These guidelines are designed to eliminate/reduce exposure against occupational silica exposure. Engineering and work practice control measures such as wet cutting and/or use of tools with dust collection systems will be used whenever feasible. When engineering controls are not feasible, respiratory protection may be required.

No RALIN employee shall enter any area potentially contaminated with a silica hazard.

All scopes of work (RALIN or sub-contracted) on a RALIN project will be planned to properly eliminate or minimize Respirable Crystalline Silica through coordination and approval by the RALIN project management team designated to oversee the corresponding project.

This section applies to all occupational exposures to respirable crystalline silica in construction work, except where employee exposure will remain below 25 micrograms per cubic meter of air (25 $\mu\text{g}/\text{m}^3$) as an 8-hour time-weighted average (TWA) under any foreseeable conditions.

Common sources of respirable crystalline silica include sand, stone, rock, concrete, brick, block, mortar, asphalt, drywall, soil, abrasive blasting agents, granite, and most other types of rock.

RALIN has developed an Exposure Control Plan (ECP). All personnel on a RALIN project are subject to the guidance provided within the ECP.

The following list includes the most frequent tasks to expect an exposure to respirable crystalline silica on RALIN projects:

Concrete Demolition	Masonry Demolition	Demolition Activities
Concrete Mixing	Grout/ Mortar Mixing	Rock/Stone Blasting/ Drilling
Concrete Cutting/ Drilling	Masonry Cutting/ Drilling	Housekeeping Activities
Concrete Control Joint Cuts	Abrasive Blasting	Drywall (1% or > Silica) Install
Grading/Excavation	Asphalt Demolition	Asphalt Cutting/ Drilling

Proper housekeeping practices must be performed to reduce or eliminate potential exposures to respirable crystalline silica

Construction projects are a dynamic environment. Every scope of work and/or task involving potential silica exposures shall be evaluated to determine if access to the area must be restricted 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.

On at least a daily basis, when work that may expose employees to a silica exposure is recognized or ongoing, then conduct a meeting with all onsite foremen/supervisors and a RALIN project management member or superintendent to disseminate the rules and conditions for the day.

In coordination with RALIN site project management or superintendent, all crews responsible for silica related work will cordon off areas where a structure does not exist to serve as a barricade to prevent entry with red "DANGER" tape (installed to remain at least 36" off the elevation surface it crosses).

In addition to any instance of "DANGER" tape placed to notify personnel of a silica hazard, signage informing explicitly of a "Danger... silica" hazard shall be posted at entrances/exits and/ or every 50 linear feet where personnel are not prevented physically from entering the area by means of a barrier, structure, door, etc.

All RALIN and sub-contracted personnel will have access to this written Exposure Control Plan on RALIN's website at the following URL: <http://RALIN.com/about/safety/>.

RALIN's "competent person(s)" shall always have the authority to indefinitely stop, evaluate and redirect any work activities on a RALIN project. RALIN's "competent person(s)" will include the following personnel to implement the written exposure control plan through frequent and regular inspections of job sites, materials, and equipment:

- Corporate Safety Manager;
- Field Safety Manager;
- Project Manager;
- Superintendent; and
- Trade's onsite foremen/ supervisor.

All personnel on a RALIN project with a potential exposure to respirable crystalline silica will be trained in accordance with 29 CFR 1926.1153.

If PPE is required, then a Respiratory Protection Program must be implemented in accordance with 29 CFR 1926.1153 and 29 CFR 1910.134.

Trade personnel subject to 29 CFR 1926.1153 shall provide current proof of a written exposure control plan and respirator program.

11.10 Hazard Communication (HazCom) Certificate

My signature below certifies that I have read and understand this certificate. I know that this jobsite has an active Hazard Communication Program/ Global Harmonization System (GHS). I understand that my responsibility is to observe and follow safe work guidelines when working with hazardous products. I further understand the following:

Most hazardous chemicals will fall into five broad categories:

- ✦ Flammables and combustibles
- ✦ Compressed gases
- ✦ Systemic poisons
- ✦ Corrosives
- ✦ Irritants



A hazardous substance can endanger your well-being in four ways:

- ✦ Inhaled
- ✦ Ingested
- ✦ Absorption
- ✦ Injection

Safety data sheets (SDS) contain the following information:

- ✦ How to properly handle and store
- ✦ Outline spill clean-up and procedures
- ✦ The medical and first aid procedures in case of overexposure

I know where the safety data sheets (SDS), emergency supplies, and emergency phone numbers are located on the jobsite. I understand how to interpret and utilize a safety data sheet.

I will, when working with hazardous products in containers, follow the guidelines outlined on labels, which explain the dangers of the product and the proper way to use the product.

I also understand that the hazardous chemical list, RALIN Hazard Communication Program, and the safety data sheets (SDS) are available for my review upon request. I agree to observe and follow all of RALIN safe work rules and practices.

11.11 Emergency Plan

An emergency plan is a set of rules or procedures to be followed by all personnel in the event of a jobsite emergency.

The emergency plan is maintained in the field office and is under the direction of the jobsite superintendent. The emergency plan determines the proper access/egress of emergency equipment and/or personnel into or out of the jobsite in case of emergency.

Supervisors will be directed to key locations on the site to assist in an emergency.

Each employee is expected to follow direction of supervisors and cooperate in any emergency action effort.

Personnel should evacuate the site in an orderly fashion if instructed to do so by supervisors.

If you become aware of an emergency or an injury, notify a supervisor immediately.

Notify supervisor of the location of emergency so that 911 can be called.

All personnel shall evacuate the area in an orderly manner and reassemble in the designated location.

All supervisors are responsible for knowing the location and number of employees at all times.

All personnel will be accounted for to ensure that everyone has evacuated the area.

Personnel are strictly forbidden to discuss jobsite conditions, events or emergencies with the media, press or any person not associated with the emergency.



11.12 Trade Safety Citation

Trades are required to establish and maintain their own safety and health programs and to comply with the regulating agencies and RALIN's requirements.

When it is necessary to warn a trade of an infraction of safety rules, a warning will be documented by the project superintendent using the RALIN Safety Citation or a copy of the warning notice must be given to the trade's supervisors, a copy sent to the trade's office, and a copy maintained at the jobsite.

SAFETY CITATION

On this date _____ and time _____

at this location

Employee: _____

working for _____

failed to comply with the following safety rules and / or policies:

[illegible]

- ☐ 1st offense - written warning
- ☐ 2nd offense - written warning; day off without pay
- ☐ 3rd offense - deduction of subcontract value.
- ☐ 4th offense - **TERMINATION FROM JOB SITE**

Kenny Edwards, Safety Manager

11.13 Scaffold Training

ALL SCAFFOLDS WILL BE TAGGED within a visible line of sight of all scaffold access ways

Color Coding for Scaffolding:

- ✦ Red = Danger – Do Not Use
- ✦ Green = Go – Ready to Use



Rolling Tower Scaffold:

The rolling tower can be no greater than 4 times the minimum base in height. For example: A 5'-0" width scaffold x 4 = 20'0" height. All rolling towers must be the following.

- ✦ Must be the proper height.
- ✦ Scaffold sections and casters must be locked/pinned in place
- ✦ The access ladder must be secured to the scaffold and extend at least 36" above the landing.

Conditions for Riding on a Scaffold:

- ✦ Floor surface level.
- ✦ The height can only be 2 times the minimum base.
- ✦ All tools must be off the scaffold.
- ✦ The scaffold must stay plumb and square while moving.
- ✦ Guardrails at 42" and 21".
- ✦ Minimum 3 1/2 " toe board.
- ✦ 20'-0" is the maximum height allowed.
- ✦ All braces and casters are bolted/ pinned.

General Scaffold:

- ✦ Base plates and a minimum 2" x 10" mudsill plate.
- ✦ Soil must be compacted.
- ✦ Base plates must be nailed to sill plate with a minimum of two nails.
- ✦ Never use bricks, blocks, rocks, etc. as support.
- ✦ All legs must have equal bearing.

Scaffold Decking / Boards:

- ✦ All scaffold boards must have a minimum 12" overlap, nailed together.
- ✦ All scaffold boards must be cleated if the lap is less than 12".
- ✦ All personnel platforms must have a minimum 3 1/2" toe board.
- ✦ All material platforms should never be used as a personnel platform.

Guardrails / Toe Boards:

- ✦ All handrails must be 42" and 21".
- ✦ All toe boards must be a minimum of 3 1/2".
- ✦ X-braces are not adequate as a complete guardrail system.
- ✦ All guardrails must withstand 200 lbs. of force with no more than a 3" deflection.

X-Braces:



- ✦ Never to be used as a complete guardrail system.
- ✦ Can be used as a part of a guardrail system, in some cases.
- ✦ Never to be used as a ladder or any other means of access.
- ✦ If the X-brace must be removed to work, then metal tubing with clamps must take its place.

General Conditions:

- ✦ A competent person must supervise the building / erection of the scaffolding.
- ✦ Scaffolding erected outside the building / structure must be secured to the structure at least every: 20'-0" / 26'-0" Vertically AND 30'-0" Horizontally AND at each end of the scaffold.
- ✦ Scaffolding must never be lifted other than vertically.
- ✦ Fall Protection must be provided at and above 10'-0" on all scaffolds.
- ✦ "Baker" or "Perry" type scaffold shall be used per the manufacturer's written recommendations.

11.14 Ladder Safety

- ✦ General requirements - the use of ladders with broken or missing rungs, broken or split-side rails, or other faulty or defective construction is prohibited.
- ✦ Portable ladder feet shall be placed on a substantial base, and the area around the top and bottom of the ladder shall be kept clear of obstructions, trash, materials, etc.
- ✦ No step ladder shall be used in the folded-up/ closed position. Ladders shall not be used in a horizontal position as platform, runways, or scaffolds.
- ✦ Ladders shall not be placed in passageways, doorways, driveways, or any location where they may be displaced by activities being conducted on any other work, unless protected by barricades or guards.
- ✦ All ladders shall extend at least 36 inches above the landing. When this is not practical, grab rails, which provide a secure grip for an employee moving to or from the point of access, shall be installed.
- ✦ Portable ladders shall be tied, blocked, or otherwise secured to prevent movement. Portable metal ladders shall not be used for electrical work and/or electricity.
- ✦ Inspect ladders daily, before use and at frequent regular intervals; if any ladder is found defective, red tag it until it is repaired or discarded. NEVER use a defective ladder.
- ✦ Use clear shellac, clear varnish, or oil as a preservative; paint is prohibited because it conceals defects.
- ✦ Clean mud or greasy substance from your shoes before climbing up ladder.
- ✦ All ladders should be secured top and bottom (to prevent movement against the heaviest anticipated load) and placed on a 4 to 1 ratio or at about 75 degrees.
- ✦ Always face the ladder and hold on with both hands, whether climbing up or down.
- ✦ Carry tools in suitable pockets or have tools and other objects hoisted with a rope and bucket.
- ✦ Work facing the ladder and hold on with at least one hand.
- ✦ Use a safety harness if the type of work requires it.
- ✦ It is dangerous to reach out too far from a ladder in any direction; move the ladder as the work requires.



- ✦ Three-point safety system: When climbing or descending a ladder, you must always have three points of contact (i.e. only one foot or hand may be off the ladder any time).
- ✦ Six-foot rule for ladders near perimeter: When using ladders within six feet of a slab edge, large interior slab opening or perimeter fall hazard, you must provide fall protection (i.e. - tie-off).

11.15 Eye Protection

Depending on your job, you may need goggles, an eye shield, a facemask or safety glasses. It is important to select the appropriate type and to wear and use it properly.

There are four types of particles that cause eye injuries on the job.

- ✦ **Unidentified Flying Object:** These microscopic objects consist of dust and particles floating around in the air, generated by wind, equipment, or cleaning operations. When working in dusty conditions, wear eye protection.
- ✦ **Particles Resulting from Chipping, Grinding, Sawing, Hammering or Using Power Tools:** These particles move at a high speed and strike with the force of a bullet. Wear eye protection any time overhead operations are performed. It may be advisable on some jobs applications to wear safety glasses under a full-face shield.
- ✦ **Invisible Hazards:** You can't see the injurious light rays generated by welding operations or laser beams. And their effects often are not felt until hours later. Wear the eye protection required when using such equipment. NEVER look in the direction of welding arcs or where a laser beam is being used.
- ✦ **Liquids:** Hot liquids, such as tar or asphalt, solvents, paint, and solutions for cleaning masonry or metal, can cause serious eye injury if splashed in your eyes. The use of proper eye protection, and a full-face shield is essential when transferring liquids between containers and when using caustic or acid cleaners.

Clear safety glasses may be worn by each jobsite employee. The employee is responsible for replacing safety glasses that are lost or stolen. Employees wearing non-safety rated prescription lenses acknowledge that their glasses only offer them minimal protection. When using tools or performing other operations requiring safety glasses, the use of prescription glasses only is not acceptable. Additional eye protection, such as face shields or goggles, may be required when using certain tools.

First aid must be available (per OSHA 29 CFR Part 1910.151(c)) where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

All employees of all trades and vendors shall be required to wear eye protection when required, provided by the trade.

All safety glasses used on RALIN jobsites shall bear the "Z87" emblem or stamp on the safety glasses.



11.16 Substance Abuse and Drug / Alcohol Testing Policy

I, _____
PRINT NAME HERE

acknowledge that I have reviewed Schedule "F" of the sub-contract agreement issued to me by RALIN, which details the company's substance abuse policy.

I further acknowledge that I have reviewed each item thoroughly, and that I will abide by every aspect of state and federal law regarding my employer's substance abuse and drug / alcohol testing policy.

Signature

Date

11.17 Event Reporting

All events, regardless of severity, should be reported within 1 hour of the event to a supervisor. If you are injured or you are aware of another employee's injury, you must report this to your supervisor within 1 hour of the event.

If the event involves any of the following areas of a person's body, they are required to be taken for **PROMPT** medical examination. **NO EXCEPTIONS!**

- Loss of Consciousness
- Amputations
- Lacerations requiring stitches
- Impalement

All events must be reported to the superintendent **within 1 hour of the event** and to the main office **as soon as possible** after the event.

Event reports and information are due within twenty-four (24) hours after the event to the office of RALIN

11.18 Multiple Injury Policy

The goal of the RALIN Safety Program is to eliminate injury, illness, or loss of life resulting from jobsite events by developing an awareness of safe working practices. It is always the policy of RALIN to maintain a safe working environment for its employees.

If an employee is injured in a situation due to their own action or causes an injury of another employee more than three times in any twelve-month period, the employee will be subject to permanent removal from any RALIN project in perpetuity.



11.19 OSHA Inspections

If OSHA visits a RALIN project, be courteous and helpful. Do not be argumentative or confrontational.

An OSHA Inspector may visit your job for one of five reasons:

1. Imminent Danger.
2. To investigate a serious event or death.
3. In response to complaints filed by individuals.
4. By random selection.
5. Re-inspection.

Explain to the OSHA representative that we will provide access as soon as notification is made to the corporate office and corporate safety manager.

11.19.1 Procedures

1. Refer the OSHA compliance officer arriving on the site to the company's Management Representative.
2. After verifying the compliance officer's official credentials, the superintendent should immediately notify the Safety Manager that an OSHA official has arrived to perform an inspection. OSHA will allow a reasonable period of time for the corporate representative to come to the jobsite.
3. Notify company counsel or corporate management representative of the inspection.
4. The superintendent should request to examine the Inspector's credentials as well as obtain his or her business card with an address and phone number to ensure that he is a representative of the Department of Labor.
5. No employees, other than the Management Representative, or Safety Manager should communicate with the OSHA compliance officer prior to conducting the opening conference.
6. Determine from the compliance officer what the purpose, scope and circumstances is for the visit. If based on a complaint, get a copy of the complaint.
7. Ensure the OSHA officer wears all necessary personal protective equipment and follows all company safety policies.

11.19.2 Inspection

1. The Inspector will designate the personnel he desires to accompany him. It could be a representative of the general contractor, as well as trades, and one or more employee representatives.
2. The superintendent and/or safety manager or safety field manager should stay with the OSHA officer at all times during the inspection except during employee interviews.
3. During the inspection, a camera that has the imposed date on the pictures should be taken. The superintendent should take any photographs taken by the inspector simultaneously, preferably from the same angle(s) and video also should be utilized, if used by the compliance officer.
4. During the inspection, all violations noted by the inspector should be corrected immediately to the compliance officer's satisfaction. Do not acknowledge the validity (good or bad) of any recognized violations.
5. If the inspection is related to a complaint, the compliance officer should only visit the areas involved in the complaint.
6. If the compliance officer deviates from areas covered by a complaint, inquire as to why there is a deviation.



7. All personnel shall be allowed to speak with regulating officials during an event such as this in a private conversation.
8. The compliance officer should be asked to put all requests for company information and/or documents in writing.
9. Document all samples or monitoring test taken by the OSHA compliance officer and request copies of all sampling and monitoring results as well as all photographs and videos taken. The company should request the compliance officer to schedule sampling and monitoring at a time when the company can conduct its own sampling and monitoring.
10. Request copies of all OSHA sample and monitoring reports from the compliance officer.
11. All work rules and safety procedures should be enforced and applicable to the compliance officer and walk-around team during the inspection.
12. You are not required to release any piece of equipment, tool, or other possible evidence to OSHA. If they want to take any evidence with them, contact the president of RALIN.

11.20 Housekeeping / Clean-Up

Housekeeping **must** to be a part of your daily routine and must match the pace of the work.

Follow these steps to help keep your work area clean:

- ✦ Clean up all areas every day, including but not limited to, jobsite, vehicles, shop, office, equipment, and tools.
- ✦ Inspect your workplace daily for debris. Dispose of wastepaper, empty cartons, garbage and scrap material.
- ✦ Clean up anything that is spilled on the floor as soon as possible.
- ✦ Keep aisles and walkways clear of all obstructions.
- ✦ Store materials neatly and keep them away from traffic areas.
- ✦ At the end of each phase of work, return all tools and excess material to proper storage. Clean up all debris before moving on to the next phase. Each employee is responsible for keeping work areas clean.
- ✦ Use nonflammable containers for disposing of scrap and waste substances. The containers should be located at convenient places.
- ✦ Know the locations of first aid and firefighting equipment. Keep the route of access to this equipment free of debris.
- ✦ Plastic bottles, scraps, paper cups, and similar rubbish shall be placed by trades' employees in trash containers for that purpose. No glass containers onsite.
- ✦ Rubbish, debris and waste materials shall be removed from the work area daily by trade's employees. Form and scrap lumber with protruding nails shall be kept clear from all work areas.

Each jobsite has specific recycling containers onsite. Be sure you are always disposing of debris in the proper receptacles.

Housekeeping is an important part of daily work. The jobsite must be kept clean and neat, and free from tripping hazards.

Fire hazards will also be reduced.



11.21 “Hot” Work

“Hot” Work permits are required to perform work classified as such on RALIN projects.

“Hot” work is any work that involves burning, welding, using fire- or spark-producing tools, or that produces a source of ignition.

All “hot” work requires that a “hot” work permit be completed and approved prior to the work being performed daily.

11.21.1 Oxygen and Acetylene Cutting Torch Safety

Each manufacturer suggests different gauge pressure settings according to the different types of tips and gases used.

The normal setting on a #2 tip with Victor gauges and torch set is:

- ✦ 40 PSI Oxygen
- ✦ 10 PSI Acetylene

Torch tip has (6) openings around the outer edge and (1) opening in the center. The outer edge is for preheating the metal.

The center opening is for cutting the metal.

There are (4) basic gases for cutting metals:

- ✦ Acetylene
- ✦ MAPP
- ✦ HEF (High Energy Fuel)
- ✦ Natural Gas, Propane, etc.

Acetylene is the hottest gas (5600 degrees F) while Natural gas is the coldest gas (4500 degrees F)

All gauges have a red line on the acetylene gauge that should never be exceeded.

Acetylene is unstable at 15 PSIG (Pounds per square inch at the gauge).

99% of all metals being cut are 1/8" to 1-1/4" in thickness. A #1 or #2 tip should be adequate for these types of cuts.

11.21.2 Acetylene Use

An acetylene cylinder is a porous material in the tank saturated with acetylene to make acetylene a stable gas to use in cylinders, which are pressurized above 15 PSIG (generally 250 PSIG in the tank).

An acetylene cylinder cannot have more than 1/7 of its capacity consumed within a short period of time or the acetylene will begin to separate from the porous material within the tank and mix with the acetylene gas as it exits the tank.



Never lay an acetylene cylinder on its side.

If the cylinder is laid on its side, the cylinder must be placed in an upright position (vertical) promptly with no further interaction for 24 hours. WARNING – Opening or closing valves can cause serious injury after a tank has been up-righted due to unstable gas states inside the tank.

11.21.3 Oxygen Use

Oxygen is 99% pure in order to mix properly with gases when cutting.

An oxygen tank is generally filled to 2,200 – 2,400 PSIG.

Never blow clothing off with oxygen because oxygen will stick to clothing for several minutes and can be ignited very easily.

11.21.4 Valves / Regulators

Never oil the O-rings in the regulators.

Oxygen and oil do not mix and will cause heat of recompression and can explode.

Two sides to regulators:

- ✦ High Pressure (tank)
- ✦ Low Pressure (torch)

11.21.5 Lighting the Torch

Always stand with the regulator between you and valve on the tank

Always back out the adjusting screws on the regulators before opening the valves.

Always open the valve slowly at first.

Turn the oxygen tank valve approximately 4-6 turns.

Always purge the torch before lighting.

Never light the torch with a cigarette or butane lighter. There is enough gas in a single butane lighter to explode and seriously injure you.

Remember when oxygen and acetylene mix, they create a temperature of approximately 5,600 degrees F instantly.

Always use an appropriate striker to light a torch.

Always adjust the torch for a good neutral flame to cut material.

11.21.6 Turning Off the Torch

Always turn off the fuel side first...then the oxygen side.



Three steps to turn off a torch

- ✦ Shut off tanks
- ✦ Bleed off lines, back-off adjusting screws
- ✦ Turn off torch head

If gauges do not fall to zero, then there is a leak.

11.21.7 General Safety Tips

A "rose bud" heating tip will cause the consumption of more than 1/7 the capacity during a short period of time.

Different size tips require different amounts of PSIG - never exceed 15 PSIG.

Three items to start a fire:

- ✦ Ignition
- ✦ Fuel
- ✦ Oxygen

Never transport cylinders without safety caps in place. When changing cylinders:

- ✦ Disconnect gauges
- ✦ Assure safety caps are in place
- ✦ Untie cylinder from cart
- ✦ Remove and store empty cylinders in secured upright position
- ✦ Oxygen and fuel cylinders must be separated by 20 feet or by a 1/2-hour fire rated wall that is 5 feet high.
- ✦ Cylinders must be secured on a truck, cart, or other device while in use and must always remain upright.

11.22 Excavation / Trenching Safety

For all excavations or trenches more than five feet in depth, slope the sides of the excavation or trench, 1.5 horizontal to 1 vertical, unless a competent person classifies the soil and determines that this is not necessary. Other alternatives are to use shoring or a trench box.

Slopes for **ALL** trenches greater than twenty feet deep must be designed by a registered professional engineer.

In trenches deeper than four feet, a means of exit, such as ladders or steps, must be no more than twenty-five (25) feet of travel from any employee in the trench.

A competent person is defined as:

- ✦ One who is capable of identifying existing and predictable hazards in the surrounding, or working conditions that are unsanitary, hazardous, or dangerous to employees. One who must have training in and be knowledgeable about soils analysis, protective systems and Subpart "P"; **and**
- ✦ Has the authority to take prompt corrective measures in order to eliminate hazards.



A competent person must inspect the trench, adjacent areas, and any protective systems for possible cave-ins, failure of protective systems, hazardous conditions. Inspections must be performed daily before work begins and after every rainstorm or other hazard increasing occurrence.

A Competent Person must inspect and approve all excavations and/or trenches PRIOR to any employee entering any excavations and/or trenches.

11.23 Confined Spaces

Confined Space:

- ✦ Is large enough or so configured that an employee can bodily enter and perform work.
- ✦ Has limited or restricted means for entry or exit (tanks, pipes, manholes, vaults, trenches and pits are spaces that may have limited means of entry).
- ✦ Is not designed for continuous employee occupancy.

Permit Required Confined Space (PRCS):

Permit required confined space (permit space), is 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 covering walls or by a floor, which slopes downward and tapers to a smaller cross-section.
- ✦ Contains any other recognized serious safety or health hazard.

Each Permit-Required Confined Space will be marked "Confined Space - Entry Permit Required"

All employees required to enter confined or enclosed spaces must be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of required protective and emergency equipment. The employer shall comply with any specific regulations that apply to work in dangerous or potentially dangerous areas. Confined or enclosed spaces include, but are not limited to, storage tanks, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, and open top spaces more than four (4) feet deep such as pits, tubs, vaults, and vessels. [1926.21(b)(6)(i) and (ii)]

A brief set of rules for confined spaces:

- ✦ Do not enter a confined space unless you have been formerly trained to do so. Training documentation must be current, on site and available for review.
- ✦ Entering any confined space without the knowledge of the site superintendent will result in the violating employee being removed from the site for 24 hours.



11.24 Electrical Safety

The following regulations apply to electrical installation used on the job site, both temporary and permanent:

- ✦ Extension cords used with portable electrical tools and appliance shall be of three-wire types. Grounds are never to be removed from the extension cords.
- ✦ Temporary lights shall be equipped with guards to prevent accidental breakage and/or incidental contact with the bulb.
- ✦ Temporary lights shall not be suspended by their electric cords unless cords and lights are designed for this means of suspension.
- ✦ Splices of any kind are not allowed. Electrical tape is not an equivalent replacement for the exterior sheathing.
- ✦ Electrical and extension cords or cables should not be laid on floors, in walkways, etc., unless it is impractical to do otherwise. They should be suspended or secured in such a way as not to block or hang in walkways, hallways, doorways, or work areas.
- ✦ Panel boxes shall always have a locked (by the project's contracted electrician) cover on them, except when being serviced by a qualified electrician.
- ✦ Lock-out/tag-out procedures will always be followed.
- ✦ **"DANGER - HIGH VOLTAGE"** to denote live current.

Follow these basic safety procedures when using electrical extension cords:

- ✦ Visually inspect the cord for damaged and exposed conductors. If the cord is in damaged condition, don't use it.
- ✦ Inspect to make sure the ground prong is in good condition and the cord provides a satisfactory ground for the electrical tools being used.
- ✦ Don't drag cords over rough surfaces and don't use them to lift or pull materials.
- ✦ Disconnect electrical cords at the receptacle.
- ✦ Don't string electrical cords through water or oil and grease. Also, don't hammer nails or staples into cords.
- ✦ When not in use, the electrical cord should be neatly rolled-up and stored.
- ✦ Only round cords that are rated for heavy duty use are allowed on the jobsite. Never use flat power cords on a jobsite.
- ✦ Always use GFCI electrical outlets and/or GFCI "pigtailes".

11.25 Jobsite Safety Rules

1. Work can only take place when there is at least one RALIN employee on site.
2. Access to this site is restricted to employees and those authorized by RALIN



3. Smoking is authorized in the project's designated smoking area only.
4. No project related employees may use the same facilities (restrooms, vending machines, etc.) as the client's occupants.
5. Use and/or possession of intoxicants, alcohol, or drugs are strictly prohibited.
6. Hard hats and high visibility vests or shirts (outermost clothing) shall always be worn by all employees and visitors.
7. Hard soled shoes are required. No tennis shoes. Long pants and shirts with 4" minimum sleeves are required at all times.
8. Eye protection, ear protection, and respiratory protection devices will be worn when required.
9. Full body harness, shock-absorbing lanyards, or other fall protection measures will be utilized when working at unprotected heights (above 6' tie off).
10. No glass containers allowed onsite.
11. No audible music devices, CD players, radios, or earphones allowed onsite.
12. Only authorized and properly documented personnel are permitted to operate equipment and/or vehicles.
13. All machinery must always have operable backup alarms.
14. No riders on machinery or equipment. Seat belt use is always required. No riding in back of pickup bed.
15. No one shall enter a trench or excavation unless it is properly sloped, shielded or shored.
16. Only trained, qualified operators will use power actuated tools.
17. All ladders will be secured, top and bottom (to prevent movement against the heaviest anticipated load). Always face ladders when going up or down.
18. Safety rails should always be maintained in all openings, stairways, and along the building perimeter.
19. Flammable liquids must be kept in approved containers.
20. Know where safety data sheets (SDS) for chemical safety hazards are on the jobsite.
21. A complete first aid kit is available in the field office.
22. Report all events, unsafe conditions and/or practices to your supervisor or to RALIN immediately.
23. The use of cell phones is not permitted on site for non-supervisory workers during working hours. Supervisors are permitted to utilize cell phones for work related issues only. No one is permitted to use cell phones while physically performing work or operating equipment on site. Cell phones may be used in the event of an onsite emergency.

11.26 Normas de Seguridad Laborales

1. El trabajo sólo puede tener lugar cuando hay al menos un empleado de RALIN en el sitio.
2. Acceso a este sitio está restringido a los empleados y los autorizados por RALIN y Associates, Inc.
3. Fumar está autorizado sólo en zona de fumadores del Proyecto.
4. Ningún empleado relacionado con el proyecto puede utilizar las mismas instalaciones (baños, máquinas expendedoras, etc.) que los ocupantes del cliente.
5. El uso o posesión de drogas, alcohol o sustancias intoxicantes está estrictamente prohibida.



6. Cascos deberán ser usados por todos los empleados y visitantes en todo momento.
7. Duro soled zapatos son necesarios. Sin zapatos tenis. Pantalones largos y camisetas con mangas mínimo 4 "se necesitan en todo momento.
8. Protección en los ojos, protección de oído y dispositivos de protección respiratoria serán usados cuando sea necesario.
9. Arnés de cuerpo completo, absorción de sacudidas cintas u otros caen cuando se trabaja en alturas desprotegidos, se utilizarán medidas de protección (6' y encima).
10. Envases de no permitieron en el sitio.
11. No hay dispositivos digital, reproductores de CD, radios, platinas o auriculares permitieron en el sitio.
12. Sólo el personal autorizado está permitido a operar equipos y vehículos.
13. Las máquinas deben tener operable alarmas de copia de seguridad en todo momento.
14. Sin corredores en maquinaria o equipo. Uso del cinturón de seguridad es necesario en todo momento. Ningún caballo detrás de cama recogida.
15. Nadie entrará una zanja o excavación a menos que sea correctamente inclinado, blindado o preeminencia.
16. Sólo los operadores capacitados, calificados utilizará herramientas powder-actuated.
17. Escaleras todos serán garantizados, superior e inferior. Siempre escaleras cara cuando va hacia arriba o hacia abajo.
18. Rieles de seguridad deben mantenerse en todo momento en todas las aberturas, escaleras y en el perímetro del edificio.
19. Líquidos inflamables deberán mantenerse en contenedores aprobados.
20. Estar alerta de los peligros de seguridad química en la jornada.
21. Un Botiquín completo está disponible en la Oficina de campo.
22. Informar todos los accidentes, condiciones inseguras y prácticas a su supervisor o a RALIN y Associates, Inc. inmediatamente.
23. El uso de celulares no es permitido en el sitio de trabajo durante los horarios de trabajo. Supervisores solamente son permitidos utilizar sus celulares para propósitos de problemas asociados con el trabajo. Nadie es permitido usar celulares mientras están físicamente trabajando o si están operando equipo en el sitio de trabajar. Celulares pueden ser usados si ocurre una emergencia en el sitio de trabajo.

11.27 Project Safety Submittals

Per Schedule "E" of your sub-contract:

These items are due ten (10) working days prior to mobilization.

All trades are required to provide a copy of their company's applicable safety data sheets (SDS) for all substances and chemicals brought to the jobsite. If a trade's scope of work does not require any Hazardous Communication applicable documentation, then a certified document (e-mail or mailed letter) must be provided stating that this is the case.



On Mine Safety and Health Administration (MSHA) regulated property, a current MSHA 24 (documented with Form 500023) must be provided for each employee on site.

These materials are to be sent to the RALIN corporate office, Attn: Safety Manager. Be sure to reference the job number and name somewhere in your cover page.

Contact Information:

By Email safety@ra-linconstruction.com

By Mail:

Ra-Lin & Associates, Inc. dba RaLin

Attn: Safety Manager

110 Dixie Street – Suite 200

Carrollton, GA 30117

All questions regarding safety submittals should be directed to the Corporate Safety Manager for RALIN by email at safety@ralinconstruction.com or via phone at (770) 834-4884.

11.28 Trade Safety Training

Every trade employee onsite must attend the Trade Safety Orientation prior to work. The purpose of the Safety Orientation is to make all employees aware of the safety policies and procedures of RALIN. During the orientation, the employees will be instructed on RALIN's Safety Orientation Package and Complete Safety Program. They will be given a copy of the Orientation Package to sign. All employees must be familiar with the policies and procedures set forth in both the Orientation and Complete Safety Program, and all employees will be required to follow the rules set forth in both documents.

The trade is responsible for ensuring ALL employees are aware of all regulatory agencies' (e.g., OSHA, MSHA, EPA, etc.) and RALIN safety rules and regulations, in addition to training the employees on the trade's safety rules and regulations.

Per the Sub-Contract Agreement with RALIN, and the Safety Orientation Package incorporated into the Sub-contract by Schedule "E", any trade onsite performing work is required to have the following:

- ✦ Competent Person training related to trade
- ✦ Safety data sheets (SDS)
- ✦ MSHA 24 (Form 5000-23) for all on site personnel (for worksites under MSHA jurisdiction)

Depending on the Trade's scope of work, the following items may be required:

- ✦ Confined Space
- ✦ Forklift Certification
- ✦ Boom & Scissor Lift Training Documentation
- ✦ Fall Competent Person Training Documentation



- ✦ Any trade disturbing dirt on the jobsite should have an NPDES Level 1A White Card (at a minimum). Georgia Soil and Water Conservation Commission (GSWCC) will issue the certification card.
- ✦ Scaffolding Competent Person Training Documentation
- ✦ Crane Operator Certification
- ✦ Welding Certificate
- ✦ Rigging & Signaling Certification
- ✦ Any other training or certifications that apply to Trade's scope of work

Trades must ensure employees have all required training for their scope of work before beginning work on the jobsite. Proof of all required training must be submitted to RALIN, along with safety data sheets (SDS).

11.29 RALIN Safety Orientation Package

I have been visually and/or verbally oriented and/or trained on all Company and jobsite safety rules and/or policies. These rules and policies include, but are not limited to the following:

- ✦ Safety Program Acknowledgement
- ✦ Jobsite Safety Rules
- ✦ Fall Protection Safety
- ✦ Fire Extinguisher Training
- ✦ Silica Program
- ✦ Hazard Communication Certificate
- ✦ Emergency Plan
- ✦ Trade Safety Citation
- ✦ Scaffold Training
- ✦ Ladder Safety
- ✦ Eye Protection
- ✦ Substance Abuse and Drug / Alcohol Testing Policy
- ✦ Event Reporting
- ✦ Multiple Injury Policy
- ✦ Housekeeping / Clean-up
- ✦ "Hot" Work
- ✦ Excavation / Trenching Safety
- ✦ Confined Spaces
- ✦ Electrical Safety
- ✦ Project Safety Submittals
- ✦ Trade Safety Training Questions / Comments:



11.30 Safety Program Trade Acknowledgement Form

My signature below certifies that I understand the governing regulatory agencies' (e.g., OSHA, MSHA, EPA, etc.) rules and regulations and that I understand RALIN has an active Safety Program. I agree to follow these rules, regulations, and programs while on RALIN managed projects. I will report all injuries, unsafe conditions or practices observed on the worksite to my supervisor within 1 hour of the observation.

I understand that any violation of the RALIN Safety Program or refusal to comply with the governing regulatory agencies' rules and regulations is grounds for removal from a RALIN project site.

I understand that all trade employees, vendors, etc. are required to comply with the governing regulatory agencies' rules and regulations and RALIN Safety Program as a minimum, always on the worksite.

- ✦ All projects may identify environmental hazards not identified in the construction documents. All workers must advise RALIN's site superintendent if any additional hazards are encountered during the remediation. Some examples of environmental hazards may include mold, existing lead paint or asbestos containing materials.
- ✦ No project related employees may communicate or interact with students, teachers or staff members.
- ✦ No project related employees may enter the area or use the same facilities (restrooms, vending machines, etc.) as the client's occupants. Workers who enter unauthorized or occupied areas of the campus may be subject to arrest for trespassing and removal from the project site.
- ✦ All workers must park in designated areas only as permitted by RALIN. No worker shall be outside of the designated work zone or parking areas except during transit to/from.
- ✦ Smoking is authorized in the project's designated smoking area only. Client policy may exceed this policy. Smoking includes tobacco, e-cigarettes, vaporizers, etc.
- ✦ No cooking of food or containers of food are permitted inside of the building.
- ✦ Proper Personal Protective Equipment (PPE) must be provided and used as required: Hard hats and high visibility vests or shirts, hard soled shoes, long pants, full shirts with a minimum 4" sleeve are required at all times.
- ✦ The worksite, work area, storage areas, etc. will always be kept clean and organized. Trades are responsible for continuous clean-up, daily clean-up, end of the activity clean-up, final clean-up, lunch / break area clean-up, etc.
- ✦ All tools (power and hand) and all equipment / vehicles must be in a good, clean, well maintained, safe condition to be on RALIN work sites.
- ✦ All electrical cords must be maintained in a good, safe condition.
- ✦ Trades must provide First Aid kits, medical services and emergency procedures for all its employees.
- ✦ Fresh, clean water and drinking cups must be provided for employees.
- ✦ All employees on RALIN worksites must attend safety training at least once per week. Notes from safety training and attendance must be documented.
- ✦ Trades must assure employee knowledge of the location of safety data sheets.
- ✦ Trades must ensure their employees have the proper safety training required for the tasks they will be performing on the jobsite.



- ✦ Each Trade must have a “Competent Person” onsite during construction activities. “Proof” of safety training and competency must be available at the worksite.

Name of Trade _____

Date _____

Print Person’s Name _____

Person’s Signature _____



Section 13 - SAFETY INCENTIVE PROGRAM

13.1 Purpose

The purpose of this section is to cover rules, regulations, standards, and expectations not specifically covered by other sections of this program (RALIN's Environmental, Health and Safety (EHS) Program).

13.2 Goal

The goal of RALIN and Associates, Inc. is to provide a safe and healthy workplace for all our associates by minimizing injury, illness, or loss of life resulting from jobsite accidents, and to develop heightened awareness of safe working practices.

RALIN has no intentions of discouraging any reporting or treatment of injuries or illnesses through this program. The safety incentive program seeks to motivate workers to practice safe behaviors in the dynamic construction industry environment.

RALIN implemented the following Safety Incentive Program for our field personnel as of January 1st, 2017.

13.3 Policy

13.3.1 Field Management – Annually

Superintendent Awards

- ✦ Two gift cards valued at approximately \$500 per superintendent will be awarded at the annual Christmas party (Total \$1,000).
- ✦ Only available to employees designated as “superintendent” by RALIN human resource records.
- ✦ Only available to superintendents with at least 12 documented safety inspections from RALIN safety prior to award date.
- ✦ Superintendents must be current on all safety documentation (corrected within one business day once a deficiency is identified):
 - ✦ Weekly Tailgate Safety Briefings (covering required weekly topics at a minimum),
 - ✦ Weekly Job Safety Analysis,
 - ✦ Weekly and Daily Safety Inspections,
 - ✦ Hot Work Permits,
 - ✦ Confined Space Permits,
 - ✦ Excavation Inspections,
 - ✦ First Aid Kit Inspections,
 - ✦ Fire Extinguisher Inspections,
 - ✦ Proper Training Documents for Equipment Operators
 - ✦ Trade Orientations
 - ✦ Trade Safety Data Sheets.



- ✦ Superintendents with safety inspections from RALIN safety with an overall excellent safety score as determined by the safety manager.

Field Management Disqualification

- Disqualified from award if one (1) or more documented instances of slow response (in the judgement of RALIN's safety manager) to address repeating issues or,
- Disqualified from award if superintendent's project receives a RALIN or OSHA citation.
- Disqualified if superintendent has been assigned to onsite project for less than 1 month (e.g., new employee).
- Disqualification for reported safety incidents involving an avoidable loss time injury.
- Disqualification for consecutive low corporate safety inspection score as determined by the safety manager.

NOTE

Any gaps in policy for all safety awards, or disqualifications, or otherwise will be amended to this policy as needed.



Section 14 - FATIGUE AND HEAT ILLNESS MANAGEMENT

14.1 Purpose

The purpose of this section is to emphasize the hazards, risks and administrative processes associated with fatigue and heat illness within the workplace not specifically covered by other sections of this program (RALIN's Environmental, Health and Safety (EHS) Program).

14.2 Goal

The goal of this section is to educate employees on identifying and managing the risks associated with fatigue and heat illness in the workplace.

14.3 Policy

14.3.1 Roles and Responsibilities

All personnel are required to maintain vigilance regarding the presence or onset of fatigue for themselves and workers around them.

Personnel in safety critical positions shall place special emphasis on monitoring themselves and co-workers for hazards associated with fatigue and must report fatigue/tiredness and lack of mental acuity to supervision.

Supervisory personnel shall make safety critical decisions and take appropriate actions to prevent loss in all instances.

Project managers shall analyze and evaluate work tasks to control fatigue. The analysis and evaluation will be documented and forwarded to the RALIN corporate safety manager for review and evaluated for further action.

14.3.2 Training

All RALIN employees will be trained regarding fatigue in the workplace upon initial employment and annually thereafter.

Specific areas for emphasis include:

- Role and Responsibilities
- Recognize Signs and symptoms of fatigue
 - Chronic tiredness or sleepiness
 - Headache
 - Dizziness
 - Sore or aching muscles
 - Muscle weakness
 - Slowed reflexes and responses
 - Impaired decision-making and judgement
 - Moodiness, such as irritability
 - Impaired hand-to-eye coordination
 - Appetite Loss
 - Reduced immune system function
 - Blurry Vision
 - Short-term memory problems



- Poor concentration
 - Hallucinations
 - Reduced ability to pay attention to the situation at hand
 - Low motivation
- Causes of fatigue
 - Medical causes – Depression, Anxiety and Stress, Grief, Medical Conditions.
 - Lifestyle-related causes – Lack of Sleep, Too Much Sleep, Alcohol and Drugs, Sleep Disturbances, Lack of Regular Exercise and Sedentary Behavior, Poor Diet, and Individual Factors.
 - Workplace-related causes – Shift Work, Poor Workplace Practices, Workplace Stress, Bullying, Unemployment, and Ergonomics.
 - Emotional concerns and stress – fatigue is a common symptom of mental health problems, such as depression and grief, and may be accompanied by other signs and symptoms, including irritability and lack of motivation.
- Controlling or managing fatigue
 - Work habits and routines
 - Work Hours
 - Rest Breaks
 - Job Rotation Schedules
 - Ergonomics
- Workstation
- Lift Assistance
- Lighting
- Temperature
- Personal habits or routines
 - Sufficient Sleep
 - Mental Fitness
 - Physical Fitness
- Reporting fatigue to supervision
- Evaluation of worker conditions

14.3.3 Procedures

RALIN shall establish work hour limitations and control job rotation schedules to control fatigue, allow for enough sleep, and increase mental fitness to control employee turnover and absenteeism.

RALIN field workers function in a dynamic environment where ergonomic devices may not be a viable option. When a more ergonomically favorable alternative exist, RALIN workers shall utilize that option.

In a RALIN office environment, ergonomic equipment shall be utilized to improve workstation conditions such as anti-fatigue mats for standing, lift assist devices for repetitive lifting, proper lighting and control of temperature, and other ergonomic devices as deemed appropriate.

All RALIN employees will be provided with periodic breaks specific to the work task(s).

All RALIN employees will be provided with chairs or seats to sit periodically as a break schedule or task allows.

Employees shall not chronically use over the counter or prescription drugs (to increase mental alertness), and any other product which may affect an employee's ability to perform their work safely.

Employees are discouraged from taking any substance known to increase fatigue, including fatigue experienced after the effects of a drug wear off.



14.3.4 Heat Illness

In order to prevent heat illness all RALIN employees will be given ample shade, rest and water and trained on how to identify heat related hazards which can include, but are not limited to:

- Potential sources of heat-related illnesses (e.g., working in direct sunlight, a hot vehicle, or areas with hot air, near a gas engine, furnace, boiler, or steam lines),
- The use of heavy or bulky clothing or equipment, including personal protective equipment,
- Estimate workload exertions by observing the types of job tasks performed by employees and whether those activities can be categorized as moderate, heavy, or very heavy work, considering both average workload and peak workload,
- Duration of exposure during which a worker is continuously or repeatedly performing moderate to strenuous activities.

OSHA has set degree danger levels which help to determine which level of heat preventative action is needed.

Danger levels: Caution (less than 80°) Warning (80°-94°), Danger (95° or higher).

Employees will be trained as needed, at a minimum of once every 30 days, during Mid-May through Mid-September on identifying and preventing Heat Related Illness.



Section 15 - RISK ASSESSMENT / JSA

15.1 Purpose

The purpose of this section is to create a culture of planning for safe work prior to working the plan. JSA would only be required for work upon commencement and when the scope or environment change (not daily, weekly, etc.).

15.2 Goal

The goal of this section is to create safe work practices by educating employees and trades on how to evaluate and strategize for safe task performance through the concept of assessing risks using job safety analysis (JSA) prior to performing any tasks.

15.3 Policy

15.3.1 Roles and Responsibilities

ALL personnel:

- The hazard identification process should be used for routine and non-routine activities as well as new processes, changes in operation, products, or services as applicable.

Pre-Construction:

- Ensure that each project is reviewed by RALIN safety via risk assessment tools such as JSAs and risk assessment matrices.

Senior Project Managers:

- Ensure that project team is supervising and reviewing JSAs completed for the project.

Superintendents:

- Ensure that a job safety analysis (JSA) is performed and documented prior to starting tasks that have yet to be executed on each specific job site. This will include all site-specific personnel expected to perform the new scope of work: RALIN field employees and trades.
- JSA would only be required for work upon commencement and when the scope or environment change (not daily, weekly, etc.).
- Ensure that a JSA is performed, reviewed, and documented each week for the highest perceived risk on the job (e.g., steel trade's falls, etc.).

Trades:

- Shall establish procedures to identify existing and potential workplace hazards and assess the risk of associated workers injury and illness. The program must identify processes are in place to identify potential hazards using JSAs and/ or facility wide/area specific analysis/inspections.

15.3.2 Training

All employees will be trained in risk/ hazard identification process to include the use and care of proper PPE.



15.3.3 Procedures

A Job Safety Analysis is the systematic identification of potential hazards in the workplace that can be used to identify, analyze and record:

- The steps involved in performing a specific job;
- The existing or potential safety and health hazards associated with each step; and
- The recommended actions and procedures that will eliminate or reduce these hazards and the risk of a workplace injury or illness.

All personnel are expected to participate in using JSAs. All potential safety hazards must be identified. Do not limit the analysis to daily operations. All possible activities shall be included. This includes occasional maintenance and visits to the workplace by third parties.

The person completing the JSA shall visit the jobsite and perform an onsite hazard assessment. That person shall then check the items on the JSA form as deemed necessary. Reasonable judgment shall be used when documenting the steps of the job. Too much detail becomes cumbersome. Not enough detail becomes useless.

After the sections mentioned above are completed, a briefing shall be conducted with all the employees who will perform the work. This briefing shall consist of the steps of the job, all hazards that may be encountered during the job, and a summary of the preventive measures that will be used to eliminate or control these hazards. All employees who participate in this briefing shall sign the appropriate section on the JSA form.

After the work site has been visited, the JSA has been completed, and a briefing has been conducted with the employees performing the job, the JSA shall be reviewed by the superintendent (RALIN or trade).

All JSA forms shall be maintained in the construction office for the duration of the project.

The hazard identification process shall be used for routine and non-routine activities as well as new processes, changes in operation, products, or services as applicable.

Risks/hazards are classified and/or ranked based on severity. Hazards are classified / prioritized based on the risk associated with the task. A risk analysis matrix indicating the severity and probability of occurrence shall be completed for each task in the JSA using the following risk assessment matrix.

			Consequence				
			Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Likelihood	A	Almost Certain	High	High	Extreme	Extreme	Extreme
	B	Likely	Moderate	High	High	Extreme	Extreme
	C	Moderate	Low	Moderate	High	Extreme	Extreme
	D	Unlikely	Low	Low	Moderate	High	Extreme
	E	Rare	Low	Low	Moderate	High	High

Risk Assessment Matrix

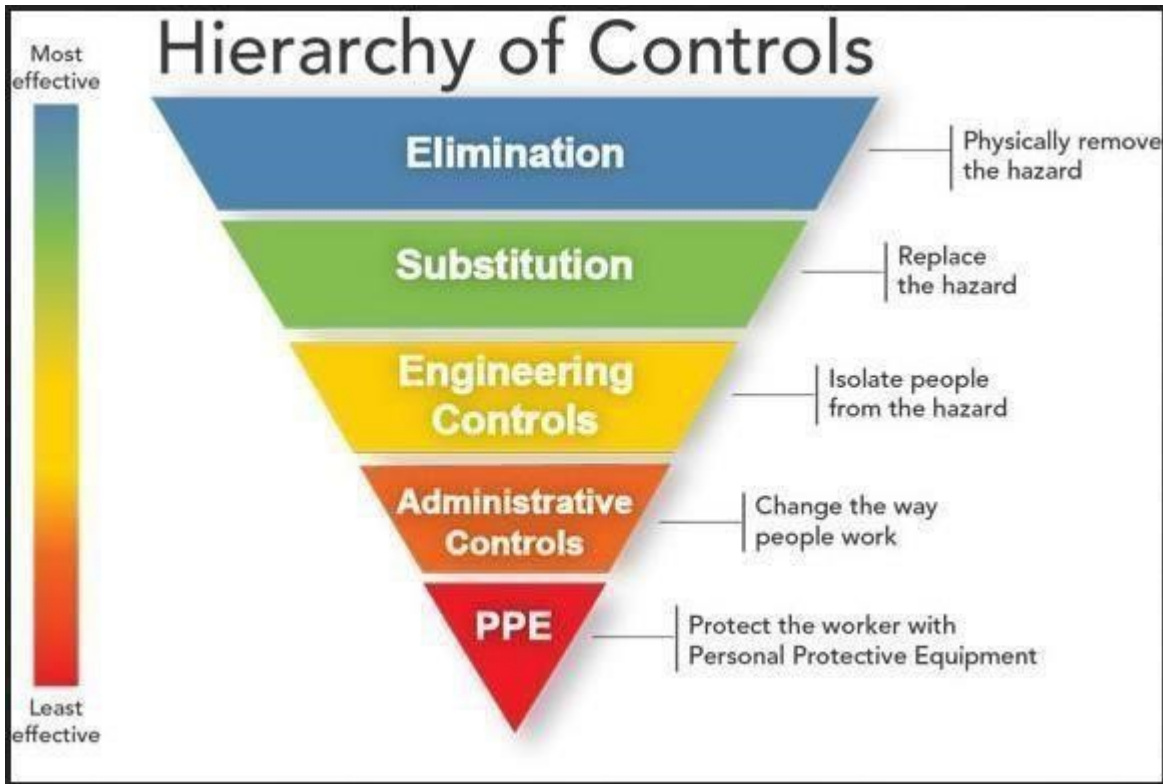
Using the resulting severity determinations, all levels of severity will be evaluated for possible actions that improve safety for personnel.

All “extreme” determinations shall be re-evaluated, and actions taken to reduce the consequences to the next level down. No “extreme” severity task will proceed and remain “extreme” without approval from RALIN’s company president.

All “extreme” determinations will require input and assistance from the RALIN Corporate Safety Manager.

All other (except for “low”) severity determinations will without exception be re-evaluated to identify methods to lower or reduce the risks.

All hazards will be evaluated and prioritized in accordance with the following hierarchy of controls with “Elimination” being the first control to attempt to accomplish and “PPE” being the last control to be considered:



Hierarchy of Controls (from cdc.gov)

Methods to ensure that identified risks / hazards are addressed and / or mitigated:

- By dedicated assignment,
- Appropriate documentation of completion, and
- Implemented controls.



Section 16 - FLEET MANAGEMENT PROGRAM

16.1 Purpose

The purpose of this section is to cover laws and rules regarding the operation and/or use of motor vehicles for RALIN related service.

16.2 Goal

The goal of this section is to inform employees of RALIN expectations regarding the use of motor vehicles for RALIN related service.

16.3 Policy

Many employees operate company owned, leased, rental or personal vehicles as part of their jobs. Employees are expected to operate vehicles safely to prevent incidents which may result in injuries and property loss. It is the policy RALIN to provide and maintain a safe working environment to protect our employees and the citizens of the communities where we conduct business from injury and property loss. RALIN considers the use of automobiles part of the working environment. RALIN is committed to promoting a heightened level of safety awareness and responsible driving behavior in its employees. Our efforts and the commitment of employees will prevent vehicle incidents and reduce personal injury and property loss claims. This program requires the full cooperation of each driver to operate their vehicle safely and to adhere to the responsibilities outlined in the Motor Vehicle Safety Program, while obeying all Federal, State and Local laws applying to the operation of motor vehicles.

16.3.1 Motor Vehicle Records (MVR)

As an employee of RALIN, all employees operating a company vehicle or receiving a company vehicle allowance are subject to a motor vehicle record search, which contains public record information. Such report(s) will include the employee's personal information, motor vehicle accidents and accident reports, moving and non-moving violation records, and driving records from federal, state, and other agencies that maintain such records, as well as independent services that provide driving record information.

Employees who use the auto allowance in lieu of a company provided vehicle shall provide proof of auto insurance and limits for review and approval by RALIN.

All employees that receive a monthly car allowance or operate a RALIN company vehicle maintain a valid driver's license and must keep their driving record in good standing as determined by RALIN's insurance carrier. Where an employee utilizes a company vehicle, and their driving record becomes less than satisfactory, the employee will be required to surrender the company vehicle. At such time, employee transportation, maintenance, and liability insurance become the responsibility of the employee. Please note the company requires a minimum of \$100,000 in personal liability insurance.

16.3.2 Distracted Driving

RALIN and Associates, Inc. understands and appreciates that employees utilize their mobile devices for business purposes and often do so while driving. However, the primary responsibility of the driver is to operate a motor vehicle safely and the task of driving requires full attention and focus. Mobile device use can distract drivers



from this task, risking harm to themselves and others. As a result, RALIN has adopted a policy to raise awareness of the hazards of using a cell phone while driving.

Paraphrased from Georgia State Law (House Bill 673):

“A driver shall exercise due care in operating a motor vehicle on the highways of this state and shall not engage in any actions which shall distract such driver from the safe operation of a vehicle:

1. While operating a motor vehicle on any highway, no individual shall:
 - Physically hold or support, with any part of his or her body a:
 - o Wireless telecommunications device, provided that such exclusion shall not prohibit the use of an earpiece, headphone device, or device worn on a wrist to conduct a voice-based communication; or
 - o Stand-alone electronic device;
2. While operating a motor vehicle on any highway, no individual shall write, send, or read any text-based communication, including but not limited to a text message, instant message, e-mail, or Internet data on a wireless telecommunications device or stand-alone electronic device; provided, however, that such prohibition shall not apply to:
 - A voice-based communication which is automatically converted by such device to be sent as a message in a written form; or
 - The use of such device for navigation of such vehicle or for global positioning system purposes.
3. Watch a video or movie on a wireless telecommunications device or stand-alone electronic device other than watching data related to the navigation of such vehicle; or
4. Record or broadcast a video on a wireless telecommunications device or stand-alone electronic device; provided that such prohibition shall not apply to electronic devices used for the sole purpose of continuously recording or broadcasting video within or outside of the motor vehicle.” Know all the key operations of your mobile device without looking.

Keep your attention on the road by programming frequently called numbers into the mobile device's memory to minimize dialing.

Do not use your mobile device in distracting traffic situations or inclement weather.

Pull off the road to make calls.

Be careful about where you stop to make calls.

Use your voice mail to take calls or leave yourself messages.

Never take notes while driving.

It is important to understand that while this policy does not prohibit the use of cellular phones and/or devices, RALIN strongly encourages you to refrain from using mobile devices while driving. Any RALIN employee who is charged with a traffic infraction as a result of the use of a mobile device will be responsible for paying any fines and/or other associated costs. The accumulation of related charges can result in disciplinary action, up to and including termination of employment.



16.3.3 Personal Use

Personal use of RALIN vehicles is prohibited unless permission is granted by upper management. Personal use poses a high degree of added liability to our organization and is discouraged.

Authorized employees will not allow an unauthorized individual to operate a company vehicle unless safety is the primary motivation for an unauthorized individual to operate a RALIN vehicle. Disciplinary action may be taken for violation of this policy. Additionally, if unauthorized use results in an incident, the responsible employee will be required to make restitution for the damages.

Company vehicles may be used for personal use outside of the normal commuting areas (i.e. travel to vacations, etc.) with the advance written approval of RALIN

16.3.4 Contractor and/or Temporary Personnel

Contractors and temporary personnel may not operate RALIN-owned vehicles.

16.3.5 Driver Qualification

The following criteria shall be used to identify acceptable drivers.

Acceptable Driver			
Minors*	Majors*	Serious Events**	Incidents*
3	0	0	0
1	0	0	1
0	0	0	2
0	1	0	0

**Indicates the review period for minor and major incidents and incidents is 3 years from the date of conviction.*

*** Indicates the review period of serious events is 5 years from the date of conviction.*



A driver is unacceptable when:

Unacceptable Driver			
Minors*	Majors*	Serious Events**	Incidents*
4+	0	0	0
2+	0	0	1
1+	0	0	2
0+	0	0	3+
1+	1	0	0
0+	1	0	1+
0+	2+	0	0+
0+	0+	1+	0+

- Minor incidents: minor moving violations such as minimal speeding or failure to stop at a stop sign.
- Major incidents: major moving violations such as excessive speeding and reckless driving.
- Serious events: severe moving violation or events such as driving under the influence of alcohol or drugs (DWI/DUI), hit and run, failure to report an incident, negligent homicide arising out of the use of a motor vehicle, operating during a period of suspension or revocation, using a motor vehicle for the commission of a felony, operating a motor vehicle without the owner's authority, or permitting an unlicensed person to drive.

Drivers identified "high risk" are those whose qualifications and driving history falls between the acceptable and unacceptable levels. Drivers who are identified as high risk are subject to several actions from management including, but not limited to:

- Drive may be terminated from employment at RALIN.
- Driver may be required to attend a Defensive or Safety Driving course on their own time & expense.
- Driver may have their driving privileges suspended or revoked.



16.3.6 Incident Recordkeeping, Reporting and Analysis

RALIN considers elimination of motor vehicle incidents as a major goal. This pertains to incidents under the operation of company-owned or leased vehicles, whether the vehicle is being driven on organizational business or for personal use, and the operation of rental or driver-owned vehicles used for business purposes. To meet RALIN's objective, all incidents will be reported to RALIN's safety department, investigated, documented, and reviewed by the RALIN Incident Review Board. The investigation identifies need for:

- a) A more intensive driver training and/or remedial training.
- b) Improved driver selection procedures.
- c) Improve vehicle inspection and/or maintenance activities.
- d) Changes in routing
- e) Determination of preventability
- f) Identification of root cause in order to prevent future occurrences

Motor vehicle incident recordkeeping procedures consist of the following components:

- a) Documentation of causes and corrective action.
- b) Management review to expedite corrective action.
- c) Analysis of incidents to determine trends, recurring problems, and the need for further control measures.

Implementation of these procedures remains the responsibility of both the driver and safety department.

Driver – The driver shall be required to report all incidents to RALIN safety department personnel, regardless of severity. All incidents should be reported as soon as possible, preferably within 24 hours or by the end of the business day. Since the driver is the first person at the incident scene, he/she will initiate the information-gathering process as quickly and thoroughly as is feasible.

Safety Department – RALIN safety department personnel shall establish and notify drivers of procedures for reporting all motor vehicle incidents. RALIN safety department personnel will identify the person or office which the driver should report the incident; identify responsibilities of that person or office; and provide instructions for actions to be taken by the driver in the event of an incident. RALIN safety department personnel will obtain incident data from the driver through the current insurance carrier's accident/incident form and/or by verbal communication. Note that RALIN safety personnel must determine the extent of the incident, especially if it involves injury or death to the driver, passengers, or other parties.

RALIN safety personnel will proceed with a formal investigation to determine the underlying causes as well as what can be done to prevent similar occurrences. The incident report will be forwarded to the insurance claims office along with any additional support data (e.g., witness statements, photographs, police reports, etc.).

Driver Participation in Repair Costs:

If a vehicle is involved in an incident which is determined preventable, driver reimbursement to the company should be as follows:

- The first 50% of the repair cost, up to a maximum reimbursement of \$250 per incident, if the vehicle is repairable, will be charged back to the driver.



- If the vehicle is a total loss, the driver will be charged \$250.

Preventable/Non-Preventable Incidents:

The following definitions relate to motor vehicle incidents:

- A motor vehicle incident is defined as "any occurrence involving a motor vehicle which results in death, injury or property damage, unless such vehicle is properly parked. Who was injured, what property was damaged and to what extent, where the incident occurred, or who was responsible, are not relative factors".
- A preventable incident is defined as "any incident involving the vehicle, unless properly parked, which results in property damage or personal injury and in which the driver failed to do everything he/she reasonably could have done to prevent or avoid the incident".

Note 1: A properly parked motor vehicle is one that is completely stopped and parked where it is legal and prudent to park such a vehicle or to stop to load/unload property. Vehicles stopped to load/unload passengers are not considered parked.

Note 2: Parking on private property will be governed by the same regulations that apply on public streets and highways. A vehicle stopped in traffic in response to a sign, traffic signal or the police is not considered parked.

The determination of preventability of an incident is the function of the RALIN Incident Review Board. See the "[Guide for Preventable and Non-Preventable Incidents](#)" portion of this section for additional guidance.

Data Analysis

RALIN will collect data on vehicle incidents and identify frequency and severity trends in order to track safety performance over time. RALIN will use such items as loss history, benchmarking, available data from incident management services, tracking devices and event recorders, and any other sources available to identify the most appropriate rates based on patterns of vehicle use and the nature of motor vehicle operations. Incident rates shall be continuously maintained in order to compare historical or industry experience, and to track progress over time.

16.3.7 Employee Incident Reporting

Employees will take the following actions when there are injuries to persons and/or damage to other vehicles or property:

- If possible, move the vehicle to a safe location out of the way of traffic. Call for medical attention if anyone is hurt.
- Secure the names and addresses of drivers and occupants of any vehicles involved, their operator's license numbers, insurance company names and policy numbers, as well as the names and addresses of injured persons and witnesses. Record this information on the Incident Report form (in the reporting packet) provided by RALIN's current auto insurance policy carrier. Do not discuss fault with, or sign anything for anyone except an authorized representative of RALIN, a police officer, or a representative of the RALIN's Insurance Company.
- Immediately notify RALIN safety personnel and your supervisor.
- You will be contacted by the RALIN safety personnel to advise you how to arrange for repairs to the vehicle. Do not have the vehicle repaired until you receive authorization from the RALIN safety personnel.



- All external communications (e.g., to the media, regulatory agencies) should be performed by authorized personnel within RALIN.

When there is theft of or damage to your vehicle only:

- If you did not witness the damage to the vehicle, you must notify the local police department immediately. Immediately notify RALIN safety personnel.
You will be contacted by the RALIN safety personnel to advise you how to arrange for repairs or replacement of the vehicle. Do not have the vehicle repaired until you receive authorization from the RALIN safety personnel.
- Send a copy of the police report along with a memo outlining any additional information to the RALIN safety personnel.

Incident Reporting Kits

Every RALIN vehicle should have an incident reporting kit in the glove box. This should include an incident report form and a pen or pencil.

16.3.8 RALIN Incident Review Board

All vehicle collisions should be analyzed, and a written report submitted to the RALIN Incident Review Board for review. The objective of this process is to determine preventability, identify root cause and any contributing factors that led to the incident, to prevent future occurrences. The reviewers shall identify and examine any factor or circumstance before, during and after the incident that may have influenced the outcome of the severity. Where the collision was preventable by the company driver, the driver should be counseled, given additional training, given time off without pay, placed on probation, transferred to non-driving duties, disciplined in other ways, or employment (or services for independent contractors) terminated according to corporate and governmental guidelines.

However, this does not absolve management from improving safety of the work and driving environment. RALIN safety department personnel, drivers and management personnel should each participate in the analysis. Management deficiencies and/or lack of management action should also be part of the incident review. Management has an obligation to support not only for driver safety, but the safety of the general public as well.

To determine preventability an incident review board has been established. Members consists of both management and field personnel. The main charge of the RALIN Incident Review Board is to determine whether the fleet incident was preventable or nonpreventable by the company's vehicle driver.

The "[Guide for Preventable and Non-Preventable Incidents](#)" portion of this section shall be used as a guide for this determination. Majority vote rules.

The RALIN Incident Review Board will report to the RALIN corporate safety manager within 3 working days the results of the review. The report will document the causal and contributing factors to the incident, which led to the decision on preventability. The RALIN corporate safety manager will take the appropriate steps and communicate the results to the affected driver and supervisor and implement the changes necessary to prevent the incident from recurring. The driver should receive a copy of the Incident Review Board's decision report. Corrective action for incidents deemed "preventable" by the driver shall be developed, implemented and documented in a timely manner. These corrective actions should consider the driver, the vehicle, and the operating environment. Special emphasis should be placed on the improvement of driving skills and behaviors judged to have been associated with the incident. The Incident Review Board and RALIN safety personnel should consider whether similar corrective actions will increase the safety of motor vehicle operations throughout the organization. If this is the case, countermeasures shall be implemented.



Factors to be Considered During an Incident Review

During a review of a motor vehicle incident, possible contributing factors may be considered using the following framework:

Driver:

- Driver's work schedule for at least the week preceding the incident,
- Length of time on duty since the previous break prior to the incident,
- Fatigue,
- Scheduling demands on driver,
- Motor vehicle record (MVR) history,
- Physical condition of the driver at the time of the incident,
- Physical limitations of the driver at the time of the incident,
- Training history, and
- Driver's emotional state.

Vehicle:

- Maintenance and inspection records,
- Vehicle condition,
- Damage to the vehicle from the incident,
- Suitability and safety of the vehicle for the work task,
- Vehicle control layout, and
- Modifications to the vehicle that may have contributed to the incident.

Operating Environment:

- Weather,
- Road conditions,
- Traffic conditions,
- Route planning, and
- Delivery or service schedules.

16.3.9 Driver Training

Drivers hired by RALIN that operate a company owned motor vehicle will have the basic skills and credentials necessary to perform this function as confirmed through the driver selection process. This includes new hire orientation, and continuing education for existing drivers, and instances where remedial training shall be required. No employee shall operate company vehicles without adequate training and proper authorization



New employees will receive a copy of this program as part of their initial orientation. A formal orientation program is established to help assure all drivers are presented with the company policy, understand their responsibilities and are familiarized with their vehicle. Training should include both classroom and behind-the-wheel training. Areas that must be addressed, with the driver, include:

- Review and assure that the driver understands the safety policy and the accompanying safety regulations,
- Have the driver sign the Vehicle Assignment Agreement,
- Review individual Motor Vehicle Report (MVR),
- Incident reporting & emergency procedures,
- Operation and controls of vehicle being assigned,
- Vehicle inspection and maintenance,
- Hours of service requirements and logbook maintenance (if applicable),
- Defensive driving techniques and other best management practices,
- Distracted driving,
- Aggressive driving,
- Substance and alcohol abuse,
- Commodity-specific training (e.g. hazardous materials),
- Emergency equipment, and
- Security procedures.

License Suspension

Drivers must notify the RALIN Corporate Safety Manager if their license is suspended or revoked.

Remedial Training

Drivers may be required to attend a company sponsored training program/course or safe driving school (National Safety Council Defensive Driving course or equivalent) or an alcohol/drug abuse program on their own time and at their own expense if a review of the driver's MVR indicates:

- One or more violation convictions within anyone-year period, or
- A conviction for driving while under the influence of alcohol or drugs.
- Also, depending on the severity of the conviction, the employee's driving privileges may be revoked and/or may result in employment termination.

16.3.10 Safe Driver Rules

Our organization has developed some key driver safety rules that all employees who drive for company business need to comply with. These rules may be modified, or additional driver rules may be created, as the need is identified. Drivers found to be in violation of these rules will be counseled, retrained and/or disciplined in a fair and consistent manner.



Safety Belts

The driver and all occupants are required to wear safety belts when the vehicle is in operation or while riding in a vehicle. The driver is responsible for ensuring passengers wear their safety belts. Children must be secured in an appropriate child passenger restraint as mandated by State law.

Impaired Driving

Drivers must not operate a vehicle at any time when his/her ability to do so is impaired, affected, influenced by alcohol, illegal drugs, prescribed or over-the-counter medication, illness, fatigue or injury.

Traffic Laws

Drivers must abide by the federal, state and local motor vehicle regulations, laws and ordinances applicable to the geographical location of travel.

Vehicle Condition

Drivers are responsible for ensuring the vehicle is maintained in safe driving condition. Drivers of daily rentals should check for obvious defects before leaving the rental office/lot and, if necessary, request another vehicle if the first vehicle is deemed unsafe by the employee.

Distracted Driving Items

See the [Distracted Driving](#) section of this policy for specific law requirements and RALIN policy regarding “distracted driving”.

In addition to limiting the use of mobile devices and other electronic communications devices, RALIN recognizes that there are other distractions in vehicles that can lead to crashes. The following could be considered distractions, and should be minimized while your vehicle is in motion:

- Eating or drinking,
- Grooming,
- Smoking,
- Reading,
- Use of technology, such as GPS and computers (location details should be programmed in prior to the start of the trip so that the driver does not need to adjust while driving), and
- Attending to passengers, children and pets.

Aggressive Driving

Aggressive driving by you, or another vehicle on the road, can lead to a crash. Aggressive driving includes speeding, tailgating, failure to signal a lane change, running red lights and stop signs, weaving in traffic, yelling, making obscene gestures and excessive use of the horn. The behaviors can escalate to road rage, which can increase the frequency and severity of auto crashes.

RALIN will not tolerate tailgating. Maintain a proper distance between you and all other drivers.

Motorcycles

Due to increased risk of personal injury, employees are prohibited from using motorcycles when traveling on company business.



General Safety Rules

Employees are not permitted to:

- Pick up hitchhikers;
- Accept payment for carrying passengers or materials;
- Use any radar detector, laser detector or similar devices;
- Push or pull another vehicle or tow a trailer;
- Transport flammable liquids or gases unless a Department of Transportation (DOT) or Underwriters' Laboratories (UL) approved container is used, and only then in limited quantities;
- Use of burning flares will be discouraged. The preferred method is the use of reflective triangles; and/or
- Assist disabled motorists or incident victims beyond their level of medical expertise. If a driver is unable to provide the proper medical care, he/she must restrict his/her assistance to calling the proper authorities. Your safety and well-being are to be protected at all times.

Company and Personal Property

Employees are responsible for company property such as computers, work papers and equipment under their control. RALIN will not reimburse the employee for stolen personal property.

Guide for Preventable or Non-Preventable Incidents

An incident is preventable if the driver could have done something to avoid it. Drivers are expected to drive defensively. Which driver was primarily at fault, who received a traffic citation, or whether a claim was paid has absolutely no bearing on preventability? If there was anything the driver could have done to avoid the collision, then the incident was preventable.

An incident is non-preventable when the vehicle was legally and properly parked, or when properly stopped because of a law enforcement officer, a signal, stop sign, or traffic condition.

If a stationary object is struck, then it is usually a preventable incident. If the driver rear-ends another vehicle then it is usually a preventable incident. It should be noted there are exceptions to any rule, but they are just that - exceptions!

It should be the objective of any person discussing or judging incidents to obtain as many facts as possible and to consider all conceivable conditions. Adverse weather conditions, actions of other drivers, or other such excuses must not influence the judgment of preventability. If procedures, scheduling, dispatching, or maintenance procedures out

of the control of the driver were found to be factors, that should be considered. RALIN must take responsibility for the work environment and recognize that drivers cannot control some aspects. It is critical that drivers have the authority to refuse to operate an unsafe vehicle without reprisal from management.

Professional drivers are expected to drive in a manner which allows them to avoid conflicts when they arise.

Taking a fair attitude does not mean leniency. If an incident is judged non-preventable and the driver(s) knows the incident could have been avoided, the credibility of the safety program will decrease in the employee's judgement.



Questions to Consider – General

When judging or discussing preventable incidents, these are some questions to consider:

1. Does the report indicate that the driver considers the rights of others or is there evidence of poor driving habits which need to be changed?
2. Does the report indicate good judgment? Such phrases as "I did not see," "I didn't think," "I didn't expect," or "I thought" are signals indicating there is something wrong. An aware driver should think, expect, and see hazardous situations in time to avoid collisions.
3. Was the driver under any physical handicap which could have been contributory? Did the incident happen near the end of a long and/or hard run? Does the driver tend to overeat? Did the driver get sufficient sleep before the trip? Is the driver's vision faulty?
4. Was the vehicle defective without the driver's knowledge? A gradual brake failure, a car which pulls to the left or right when the driver applies the brakes, faulty windshield wipers, and similar items are excuses, and a driver using them is trying to evade responsibility. Sudden brake failure, loss of steering, or a blowout may be considered defects beyond the driver's knowledge; however, the inspection and maintenance program should work to prevent these hazards.
5. Would taking a route through less congested areas reduce the hazardous situations encountered?

Questions to Consider – Specific Types of Incidents

Intersection Collisions

Failure to yield the right-of-way, regardless of stop signs or lights, is preventable. The only exception to this is when the driver is properly proceeding at an intersection protected by lights or stop signs and the driver's vehicle is struck in the extreme rear, side, or back.

Regardless of stop signs, stop lights, or right-of-way, a professional driver should recognize that the right-of-way belongs to anyone who assumes it and should yield accordingly. In addition, a professional driver is expected to know the turning radius of the vehicle and be able to avoid damaging others. These incidents are normally considered preventable.

1. Did the driver approach the intersection at a speed safe for conditions?
2. Was the driver prepared to stop before entering the intersection?
3. At a blind corner, did the driver pull out slowly, ready to apply the brakes?
4. Did the driver operate the vehicle correctly to keep from skidding?

If the answer to any question is "No", the incident should be deemed as "preventable".

Sideswipes

Sideswipes are often preventable since drivers should not get into a position where they can be forced into trouble. A driver should pass another vehicle cautiously and pull back into the lane only when he or she can see the other vehicle in the rearview mirror. A driver should also be ready to slow down and let a passing vehicle into the lane. A driver should not make a sudden move that may force another vehicle to swerve. Unless the driver is swerving to avoid another car or a pedestrian, sideswiping a stationary object is preventable.

Drivers are expected to be able to gauge distances properly when leaving a parking place and enter traffic smoothly.



A driver is expected, whenever possible, to anticipate the actions of an oncoming vehicle. Sideswiping an oncoming vehicle is often preventable.

The doors of a vehicle should never be opened when it is in motion, and should not be opened on the traffic side, unless clear of traffic, when it is parked.

A parked vehicle can be seen from a enough distance; therefore, the operator of an approaching vehicle should be prepared in case the doors of the parked vehicle are opened. This type of incident is nonpreventable only when the door is opened after the driver has passed it.

1. Did the driver look to front and rear for approaching and overtaking traffic immediately before starting to pull away from the curb?
2. Did the driver signal before pulling away from the curb?
3. Did the driver look back rather than depend only upon rearview mirrors?
4. Did the driver start into traffic only when this action would not require traffic to change its speed or direction in order to avoid his or her vehicle?

If the answer to any question is "No", the incident should be deemed as "preventable".

Skidding

Many skidding conditions are caused by rain, freezing rain, fog, and snow, which all increase the hazard of travel. Oily road film, which builds up during a period of good weather, causes an especially treacherous condition during the first minutes of a rainfall.

Loss of traction on a grade can be anticipated, and these incidents usually are preventable. Chains or other suitable traction devices should be used, if they are available.

1. Was the driver operating at a safe speed considering weather and road conditions?
2. During inclement weather was the driver keeping at least twice the safe following distance used for dry pavement.
3. Were all actions gradual?
4. Was the driver anticipating ice on bridges, gutters, ruts, and near the curb?
5. Was the driver alert for water, ice or snow in shaded areas, loose gravel, sand, ruts, etc.?
6. Did the driver keep out of other vehicle tracks or cross them at wide angles?

If the answer to any question is "No", the incident should be deemed as "preventable".

Pedestrian and Animal Collision

All types of pedestrian incidents, including collision with pedestrians coming from between parked cars, are usually considered preventable. There are few instances where the action of pedestrians is so unreasonable that the operator could not be expected to anticipate such an occurrence.

Collisions with animals are normally preventable, unless the movement on the part of an animal was unusual and unexpected. This is also taking into consideration the fact that the driver was aware of animals in the vicinity.

1. Did the driver go through congested sections expecting that pedestrians would step in front of the vehicle?
2. Was the driver prepared to stop?



3. Did the driver keep as much clearance between his or her vehicle and parked vehicles, as safety permitted?
4. Did the driver stop when other vehicles have stopped to allow pedestrians to cross?
5. Did the driver wait for the green light or stop for the caution light?
6. Was the driver aware of children and prepared to stop if one ran into the street?
7. Did the driver give all pedestrians the right-of-way?
8. Did the driver stop for a school bus which was stopped and properly signaling that passengers were loading or unloading?

If the answer to any question is "No", the incident should be deemed as "preventable".

Parked or Stopped

Incidents occurring when vehicles are properly and legally parked are considered nonpreventable. Incidents occurring while the vehicle was double parked or in a "No Parking" zone are preventable.

1. Was the vehicle parked on the proper side of the road?
2. Was it necessary to park near the intersection?
3. Did the driver have to park on the traveled part of the highway, on the curve, or on the hill?
4. When required, did the driver warn traffic by emergency warning devices?
5. Did the driver park parallel to the curb?
6. Was it necessary to park so close to an alley or directly across from a driveway?

Non-collision Vehicle Damage, Mechanical Failure, and Miscellaneous Problems

The incident should be considered preventable if the investigation shows a mechanical defect of which the driver was aware, a defect the driver should have found by inspecting the vehicle, or the driver caused by rough and abusive handling.

When a mechanical failure is sudden or unexpected, not resulting from abuse or ordinary wear, it may be considered non-preventable. Bad brakes should not be considered a mechanical failure unless the failure was sudden, and the driver could have had no previous knowledge of the condition. However, this type of failure cannot excuse a driver who does not know how to properly perform a pre-trip inspection for the vehicle or is too hurried to do the inspection correctly.

It is a driver's responsibility to keep the cargo in mind and be aware of any sudden vehicle movements which may cause damage to the cargo. Driving off the highway to avoid a collision may be preventable. Drivers should try not to place themselves in such a position. "U" turns are an abnormal occurrence in the smooth flow of traffic. Incidents which occur while this maneuver is attempted are considered preventable.

1. Could the driver have done anything to avoid the incident?
2. Was the driver's speed safe for conditions?
3. Did the driver obey all traffic signals?
4. Was the driver's vehicle under control?
5. Did the driver follow the routing and delivery instructions?

If the answer to any question is "No", the incident should be deemed as "preventable".



Section 17 - SAFETY RULES & REGULATIONS

17.1 Purpose

The purpose of this section is to cover rules, regulations, standards, and expectations not specifically covered by other sections of this program (RALIN's Environmental, Health and Safety (EHS) Program).

17.2 Goal

The goal of this section is to inform employees of rules designed to reduce or eliminate potential hazards and risks within the workplace.

17.3 Policy

17.3.1 General Jobsite Safety Rules

The following apply to ALL RALIN jobsites:

1. Work can only take place when there is at least one RALIN employee on site.
2. Access to this site is restricted to employees and those authorized by RALIN.
3. Smoking is authorized in the project's designated smoking area only.
4. No project related employees may use the same facilities (restrooms, vending machines, etc.) as the client's occupants.
5. Use and/or possession of intoxicants, alcohol, or drugs are strictly prohibited.
6. Hard hats and high visibility vests or shirts (outermost clothing) shall always be worn by all employees and visitors.
7. Hard soled shoes are required. No tennis shoes. Long pants and shirts with 4" minimum sleeves are required at all times.
8. Eye protection, ear protection, and respiratory protection devices will be worn when required.
9. Full body harness, shock-absorbing lanyards, or other fall protection measures will be utilized when working at unprotected heights. (above 6' tie off)
10. No glass containers allowed onsite.
11. No audible music devices, CD players, radios, or earphones allowed onsite.
12. Only authorized personnel are permitted to operate equipment and/or vehicles.
13. All machinery must always have operable backup alarms.
14. No riders on machinery or equipment. Seat belt use is always required. No riding in back of pickup bed.
15. No one shall enter a trench or excavation unless it is properly sloped, shielded or shored.
16. Only trained, qualified operators will use powder-actuated tools.
17. All ladders will be secured, top and bottom (to prevent movement against the heaviest anticipated load). Always face ladders when going up or down.
18. Safety rails should always be maintained in all openings, stairways, and at the building perimeter.



19. Flammable liquids must be kept in approved containers.
20. Know where safety data sheets (SDS) for chemical safety hazards are on the jobsite.
21. A complete first aid kit is available in the field office.
22. Report all events, unsafe conditions and/or practices to your supervisor or to RALIN immediately.
23. The use of cell phones is not permitted on site for non-supervisory workers during working hours. Supervisors are permitted to utilize cell phones for work related issues only. No one is permitted to use cell phones while physically performing work or operating equipment on site. Cell phones may be used in the event of an onsite emergency.

17.3.2 Rules and Regulations

It is important for employees to know the safety rules and regulations required to perform each task of their scope of work in a safe manner. The rules and regulations listed below are not meant to be comprehensive, but to be a guide to help keep our employees safe while on the jobsite. The following subjects do not cover rules and regulations specifically covered by other sections of this program.

Abrasive Grinding

- Abrasive wheel bench or stand grinders must have safety guards strong enough to withstand bursting wheels. [1926.303(b) & (c)(1)]
- Adjust work rest on grinders to a clearance not to exceed 1/8" between rest and wheel surface. [1926.303(c)(2)]
- Inspect abrasive wheels before mounting. [1926.303(c)(7)]
- Eye Protection is always required while using abrasive grinders.
- Proper respiratory protection will be worn during abrasive grinding.

Access / Egress

- Do not jump on or off equipment and/or vehicles.
- Use only safe means of access / egress to and from work areas. Safe means includes ladders, ramps and stairs. Jumping from or to work areas is not allowed, nor is sliding down cables, ropes or guywires.
- Keep all equipment, vehicles, footwear, access areas, etc. clean.
- No ATV's are allowed on the jobsite. *Air Tools*
- Secure pneumatic tools to hose in a positive manner to prevent accidental disconnection. [1926.302(b)(1)]
- Install and maintain safety clips or retainers on pneumatic impact tools to prevent attachments from being accidentally expelled. [1926.302(b)(2)]
- The manufacturer's safe operating pressure for all fittings shall not be exceeded. [1926.302(b)(5)]



Compressed Air

- Compressed air used for cleaning purposes may not exceed 30 psi, and then only in conjunction with effective chip guarding and personal protective equipment. [1926.302(b)(4)]
- The use of compressed air to clean off any individual is not allowed.

Concrete and Masonry Construction

- No construction loads shall be placed on the structure until the structure can support the load. [1926.701(a)]
- All protruding reinforced steel onto and into which employees could fall, shall be guarded to eliminate the hazard of impalement. [1926.701(b)]
- No employee shall work under a concrete bucket while the bucket is being elevated or lowered into position. [1926.701(e)(1)]
- Only authorized employees shall be allowed in the "limited access zone" of masonry walls construction. [1926.706(a)(1) thru (a)(5)]
- All masonry walls over (8) eight feet in height shall be adequately braced to prevent overturning and collapse. [1926.706(b)]

Construction Equipment

- All personnel operating equipment shall have documented proof of training in proficiency and safety features for the specific type, make and model. Documentation must be available for review.
- Failure to follow any of the policies listed above may be grounds for termination of driving privileges or termination of employment.
- Check all vehicles in use at the beginning of each workday to assure all parts, equipment and accessories affecting safe operation are in proper operating condition and free from defects. All defects shall be corrected before placing vehicle in service. [1926.601(b)(14)]
- No employee shall use any motor vehicle, earthmoving, or compacting equipment having an obstructed view to the rear unless:
 - Vehicle has a reverse signal alarm distinguishable from the surrounding noise level, or
 - Vehicle is backed up only when an observer signals it is safe to do so. [1926.601(b)(4)]
- Willful destruction of company property (such as cutting back-up alarm wires or seatbelts) shall result in immediate dismissal.
- Heavy machinery, equipment, or parts thereof, which are suspended or held aloft, will be substantially blocked to prevent falling or shifting work under or between them. [1926.600(a)(3)(i)]
- Employees shall maintain eye contact with operators of all types of vehicles or equipment.



- Before entering the site, locate all moving equipment and/or potential sources and routes of moving equipment. This shall be determined, and precautions taken at that time to ensure employees on the ground do not come into physical contact with moving equipment.
- Ensure that all back-up alarms are functioning and/or spotters and/or mirrors are in place and in use.
- Rules for Operators
 - No employee shall operate equipment without adequate training and proper authorization.
 - Operators shall inspect equipment prior to beginning work to ensure the equipment is in safe condition.
 - Operators shall not operate any heavy equipment that is not in safe working order.
 - All events must be reported to the office within one (1) hour.
 - If an event occurs, the operator must follow the procedures as outlined in Section 5 “Event Reporting”.
 - No “riders” on equipment.
 - No employee shall ride any piece of equipment in any fashion (as in a bucket or on the headache ball) or ride on anything attached to a piece of equipment such as a pipe or other equipment. If an employee is on or in a piece of motorized movable equipment, it shall be equipped with a seat (if intended for sit-down operation) and a seat belt, and the seat belt shall be worn snugly.
 - All forklift operators require specific training prior to operating the equipment.

Drinking Water

- An adequate supply of potable water shall be provided in all places of employment. [1926.51(a)(1)]
- Potable water containers shall be capable of being tightly closed and be equipped with a tap. [1926.51(a)(2)]
- The common drinking cup is prohibited. Cup dispensers and disposable cups shall be provided. [1926.51(a)(4)]
- A sanitary container for unused cups and a receptacle for used cups shall be provided. [1926.51(a)(5)]

Employee / Trade Conduct

- No “cat calling” and/or any form of sexual harassment will be tolerated.
- Willful destruction of company property (i.e., cutting back-up alarm wires or seatbelts) may result in immediate dismissal.
- Any employee caught stealing will be terminated.



Flag Personnel

- When signs, signals, and barricades do not provide necessary protection on or adjacent to a highway or street, flag personnel or other appropriate traffic controls shall be provided. [1926.200] & [1926.201]
- Flag personnel shall wear highly visible garments while flagging. Warning garments worn at night will have reflector material. [1926.200] & [1926.201] & [1926.651(d)]
- Always follow state D.O.T. requirements and MUTCD Manual.

Hand and Power Tools

- Employers shall not issue or permit the use of unsafe hand tools. [1926.301(a)]
- Wrenches shall not be used when jaws are sprung to the point slippage occurs. Keep impact tools free of mushroomed heads. Keep wooden tool handles free of splinters or cracks and assure a tight connection between the tool head and the handle. [1926.301(b), (c) & (d)]
- Electric-power operated tools shall either be approved double insulated or be properly grounded and used with ground fault circuit interrupters. [1926.302(a) & 1926.404(b)(1)]
- All tools and equipment shall be maintained in good condition.
- Damaged tools or equipment shall be removed from service and tagged "DEFECTIVE".
- Only appropriate tools shall be used for the job.
- Wrenches shall not be altered by the addition of handle-extensions or "cheaters".
- Files shall be equipped with handles and not used to punch or pry.
- A screwdriver shall not be used as a chisel.
- Do not remove guards from portable tools or ground pins on portable electric tool plugs.
- Guards must remain operational on all tools equipped for a guard, i.e. cut off saws, etc.
- Portable electric tools shall not be lifted or lowered by means of the power cord.
- Electric cords shall not be exposed to damage from traffic.
- Fuel powered tools must be shut off and allowed to cool before refueling.

Heating Devices, Temporary

- When heating devices are used, fresh air shall be supplied to maintain the safety and health of employees. [1926.154(a)(1)]
- Solid fuel salamanders are prohibited. [1926.154(d)] Lasers
- Only qualified and trained employees shall be assigned to install, adjust, and operate laser equipment. [1926.54(a)]
- "Laser in Use" signs shall always be posted lasers are in operation. [1926.54 (d)]



Lighting

- Construction area, ramps, walkways, corridors, offices, shops, sheds and storage areas shall be adequately lighted. [1926.56(a) & (b)]
- Additional lighting and maintenance of lighting shall be provided as necessary, including but not limited to stairways, aisle ways, and entry/exit areas.

Masonry

- Masonry walls over eight feet in height must be adequately braced to prevent overturning.
- The bracing must remain in place until permanent supporting elements of the structure are in place.
- Bracing must comply with the "Standard Practice for Bracing Masonry Walls under Construction" or be designed by a qualified person. The standard practice publication can be found at www.masonryinstitute.org.
- When bracing is designed by a qualified person, the data/drawing for such bracing must be included in the site-specific plan and maintained at the site.
- Whenever a masonry wall is being constructed, a limited access zone must be established before the start of construction. The zone must meet the following requirements:
 - Equal to the height of the wall to be constructed plus four feet, and shall run the entire length of the wall;
 - Restricted to entry only by employees actively engaged in constructing the wall; and
 - Remain in place until the wall is supported to prevent overturning and collapse unless the height of wall is over eight feet and unsupported, in which case it must remain in place until permanent supporting elements are in place.

Power Transmission, Mechanical

- Belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains or other reciprocating, rotating, or moving parts of equipment must be guarded if such parts are exposed to contact by employees or otherwise constitute a hazard. No equipment may be used without guards in place. [1926.300(b)(2)]
- Guarding shall meet the requirement of ANSI B 15.1-1953 (r 1958), "Safety Code for Mechanical Power Transmission Apparatus". [1926.300(b)(2)]

Office Safety

- Office work is generally considered relatively safe; however, conditions and unsafe practices occur that can and do cause injuries.
- Exercise care in lifting office machines, filing cases, ledgers, boxes, and bundles of office supplies. All persons lifting any material should observe proper lifting positions to lift with the leg muscles rather than putting unnecessary strain on the back. Large boxes or bundles of supplies should be moved by hand truck or unpacked and handled in smaller loads.
- Bulky objects should not be carried in such a way as to obstruct the view ahead or interfere with free use of handrails on stairways. Get help if necessary.



- Liquids spilled on floors shall be cleaned up immediately. Loose objects such as paper clips, pencils, and other small objects, should be kept off the floors. Extension cords to office machines should be in such a manner as to eliminate tripping hazards.
- Desk and file cabinet drawers should be kept closed except when being used. Open only one drawer at a time to avoid tipping the cabinet.
- Use an adequate stepladder to reach objects on overhead shelves.
- Walk—**do not run**—in hallways or up and down stairways.
- Always use handrails and “grab rails” on stairways.
- Gummed strips on envelopes should be moistened with a device.
- Use letter openers to open envelopes. Letter openers, knives, and scissors should be used with care and properly stored when not in use.
- Pointed objects, such as knives, and scissors, should not be carried in the pocket with the point exposed.
- Keep fingers clear when using stapling machines.
- Keep fingers away from the cutting edge of paper cutters. Never leave a hand-operated cutter blade in the raised position.
- Defective electrical cords or connections on office machines shall be removed from service until repaired.
- Extreme care should be used with all temporary portable heaters in the office areas.

Powder-Actuated Tools

- Only trained employees shall operate powder-actuated tools. [1926.302(e)(1)]
- Hearing protection shall be used when using powder-actuated tools.
- Expended and dud cartridges shall be gathered and submerged in water until disposed of in waste containers.

Protection of the Public and Property

- All personnel are charged with aiding in the protection of the public including (as your job description dictates) installation and maintenance of signs, signals, lights, fences, guardrails, ramps, temporary sidewalks, barricades, overhead protection, etc. as may be necessary.
- Always give the public the “right of way”.
- Only authorized personnel shall be allowed on the jobsite.
- Barricades and warning lights shall be provided on all open ditches and excavations where there is a public exposure.

Rollover Protective Structures (ROPS)

- All material handling equipment shall be fitted with rollover protective structures (ROPS). This applies to the following types of material handling equipment:
- All rubber-tired tractors or wheel type agricultural and industrial tractors



- Crawler tractors
- Crawler type loaders
- Motor graders with or without attachments that are used in construction work.

Saws

- Portable, power-driven circular saws will be equipped with guards above and below the base plate or shoe. The lower guard will cover the saw to depth of teeth, except for minimum arc required to allow proper retraction and contact with the work and will automatically return to covering position when blade is removed from the work. [1926.304(d)]
- Radial saws will have an upper guard, which completely encloses upper half of saw blade. The sides of the lower exposed portion of blade will be guarded by a device that will automatically adjust to the thickness of and remain in contact with material being cut. Radial saws will be installed so the cutting head will return to starting position when released by operator. [1926.304(g)]
- Swing or cut-off saws will be provided with a hood that will completely enclose the upper half of the saw.
- All portions of band saw blades will be enclosed or guarded, except for working portion of blades between bottom of guide rolls and table.

Signs

- For the protection of all, signs such as “Exit”, “No Exit”, “No Smoking”, “Laser in Use”, “Keep Out”, “Eye Protection Required”, “Out of Order—Do Not Use”, and “Authorized Personnel” will be posted as needed. All employees will obey these directions.

Smoking Policy

- Smoking is only authorized in one designated smoking area on each project and only if client smoking policy allows smoking on the property.
- The designated smoking area shall be established outside the footprint of the project’s foundations in a discreet location.
- All fire protection rules shall be observed regarding any smoking on projects.

Storage

- All materials stored in tiers will be secured to prevent sliding, falling or collapse. [1926.250(a)(1)]
- Aisles and passageways will be kept clear and in good repair. [1926.250(a)(3)]
- Stored materials will not obstruct exits. [1926.151(d)(1)]
- Materials will be stored with due regard to fire characteristics. [1926.151(d)(2)]
- Weeds and grass in outside storage areas shall be kept under control. [1926.151(c)(3)]
- Flammable liquids must be kept in approved containers. [1926.152(a)(1)]

Toilets

- Toilets, shall be provided by the company according to the following minimums:



- o Twenty (20) or fewer persons = One (1) facility
- o Twenty (20) or more persons = One (1) toilet seat and one (1) urinal per forty (40) persons
- o Two hundred (200) or more persons = One (1) toilet seat and one (1) urinal per fifty (50) persons [1926.51(c)(1)]

Washing Facilities

- The employer shall provide adequate washing facilities for employees engaged in operations involving harmful substances. [1926.51(f)]
- Washing facilities shall be in near proximity to the worksite and shall be so equipped as to enable employees to remove all harmful substances. [1926.51(f)]

Working / Walking under Suspended Loads

- Employees shall NOT work/walk under any suspended load. [1926.701(e)(1) & (2)]

Work Zone Safety

- Any condition that may pose a potential hazard(s) to the general public, jobsite workers, the owner and/or visitors to the project site are required to be identified and protected by using signs, barriers or other appropriate means of protection.
- Materials stored upon the highway shall be placed to cause as little obstruction to the traveling public as possible.
- Traffic control devices, color-codes, barricades and flag-persons shall conform to the D.O.T Manual of Uniform Traffic Control Devices (MUTCD).
- All signs, markings and barricades must be removed or covered as soon as they have served their purpose.
- Signage (April 2020)
 - o All construction areas shall be posted with legible traffic signs at or near the point of hazards.
 - o Before any new route or detour is opened to traffic or before any work creating a dangerous condition is begun, all necessary signs will be in place.
 - o All State requirements must be adhered to by submitting traffic control plans to proper state authorities for road closures, signage, detours, etc.
 - o All signs should be inspected daily to assure that they are in proper position, clean and legible.
 - o All signs used at night should be reflective or illuminated by a light in accordance with the MUTCD manual. In addition, yellow, blinking lights may be required or useful to bring attention to potential hazards ahead.
 - o Signs shall be located on the right-hand side of the roadway, with the near edge of the sign from 6 to 12 feet from the edge of the traveled way or at least 2 feet outside of an un-mountable curb.
 - o For details on typical applications and placement of traffic control signs and devices on construction projects, see the D.O.T MUTCD.
- Lighting and Marking Devices



- o Important signs, barricades and hazardous conditions on or besides the traveled way shall always be marked by lighting or reflective devices at night.
- Barricades, Fences and Channeling
 - o Where a road must be closed to traffic due to construction, Type III barricades shall be erected at the points of closure. The barricade shall extend from the curb or ditch both sides, there should be minimum of three horizontal rails and these should be alternately striped at a 45-degree angle pointing down in the direction approaching traffic is to follow. Type I barricades will be used in other minor situations as needed.
 - o When it is necessary to confine or restrict traffic to certain lanes or in certain areas, additional traverse barricades may be placed at close intervals in the closed lane or a series of Type II barricades, cones, drums or sandbags may be set in a longitudinal row along the edge of the closed area.
 - o All barricades used at night shall have proper reflectors.
 - o On work in urban areas it is necessary to consider pedestrian as well as vehicle needs and, in addition to fencing dangerous areas, to also provide a safe, dry temporary sidewalk to reach abutting property. Minimum provisions will vary and will usually be established in the construction contract or the public work code of the city.
- Flaggers and Signaling Devices
 - o Flaggers shall be used whenever traffic passing through the project may be required to stop because of conflicts with construction equipment or because the safe travel path cannot accommodate two-way traffic. Flaggers must be trained, and documentation of training maintained. Training must comply with local/state requirements.
 - o Flaggers shall be provided with and shall wear an ANSI Type II reflective garment while flagging both day and night.
 - o During night operations flaggers will be equipped with a bright flashlight with a red cone or an equivalent.

17.3.3 Explosives and Blasting

- Blasting, pile driving, underpinning and similar operations may present special exposures to adjoining or adjacent structures. When such operations are planned, it is important that the trade's foreman or project manager make a preliminary survey of the property to determine structural defects, which exist. If such defects exist and there is a possibility of aggravating them, precise pre-construction surveys should be made to establish that the conditions were not caused by our operations but existed before the job started. Depending on the seriousness of the possible aggravations, these surveys should be made by an independent, qualified professional engineer and may include photographs, which should be made and dated by an impartial commercial photographer.
- Permits must be obtained **prior to blasting**.
- Only authorized and qualified persons shall be permitted to handle and use explosives. [1926.900(a)]
- Explosive material shall be stored in approved facilities required under the applicable provisions of the Bureau of Alcohol, Tobacco, and Firearms regulations contained in 27 CFR Part 55, Commerce in Explosives.



- Blasting operations in the proximity of overhead power lines, communication lines, utility services, or other services and structures shall not be carried on until the operators and/or owners have been notified and measures for safe control have been taken. [1926.900(o)]
- The prominent display of adequate signs, warning against the use of mobile radio transmitters, on all roads within 1,000 feet of blasting operations. Whenever adherence to the 1,000-foot distance would create an operational handicap, a competent person shall be consulted to evaluate the situation, and alternative provisions may be made which are adequately designed to prevent any premature firing of electric blasting caps. A description of any such alternatives shall be reduced to writing and shall be certified as meeting the purposes of this subdivision by the competent person consulted. The description shall be maintained at the construction site during the duration of the work and shall be available for inspection by representatives of the Secretary of Labor. [1926.900(k)(3)(i)]
- Empty boxes and paper and fiber packing materials, which have previously contained high explosives, shall not be used again for any purpose, but shall be destroyed by burning at an approved location. [1926.900(l)]
- Smoking and open flames shall not be permitted within fifty (50) feet of explosives and detonator storage magazines. [1926.904(c)]
- Procedures that permit safe and efficient loading shall be established before loading is started. [1926.905(a)]
- Warning signs, indicating a blast area, shall be maintained at all approaches to the blast area. The warning sign lettering shall not be less than 4 inches in height on a contrasting background. [1926.905(p)]



Section 18 - COMPANY FORMS

Form Number	Version Date	Title of Form	Description of Form	Required Frequency		
				Projects	Corporate and Annex	Oxford, AL
RSF-0000	2017-0124	Occupational Safety and Health (OSH) Guidance; Safety Approach for Projects	Occupational Safety and Health (OSH) Guidance; Safety Approach for Projects	Reference	Reference	Reference
RSF-0001	2016-1220	Forms, Reports, Program List	List of Safety specific forms and reports			
RSF-0010	2013-0401	First Aid Cases Form	Tracking sheet for 1st aid cases for RA-LIN employees.	Once (Posted)	Once (Posted)	
RSF-0020	2013-0304	First Aid Kit Inspection Form	Track inspections of first aid kit.	Weekly (Posted)	Weekly (Posted)	
RSF-0100	2017-0124	Safety Event Response Matrix Checklist	Checklist to support event response and avoid missed actions	Once (Posted)	Once (Posted)	Once (Posted)
RSF-0101	2013-0905	Event Analysis Guidelines	Guidance on acquiring pertinent information after an event	Reference	Reference	Reference
RSF-0102	2013-0304	Event Report Form	All information regarding an event	Per Event	Per Event (If Applicable)	Per Event (If Applicable)
RSF-0103	2013-0304	Comprehensive Witness Statement	Information from witnesses of an event	Per Event	Per Event (If Applicable)	Per Event (If Applicable)
RSF-0104	2014-0910	Refusal of Doctor's Care	Information documenting the refusal of medical care	Per Event	Per Event (If Applicable)	Per Event (If Applicable)
RSF-0111	2015-0427	Employee Injury Statement	Injury event and/or witness acknowledgement	Per Pay Period		
RSF-0200	2014-0716	Job Safety Analysis Guidance	Guidance on filling out a JSA	Reference	Reference	Reference
RSF-0201	2014-0923	Job Safety Analysis	Job Safety Analysis for RA-LIN use	Weekly		
Section 7 - EHS	2014-0609	RA-LIN Employee Safety Orientation	RA-LIN Employee Safety Orientation	Once (New Hire)	Once (New Hire)	Once (New Hire)
RSF-0310	2013-0905	Safety Inspection Quarterly Checklist	Quarterly safety inspection form for self site inspection	Quarterly	Quarterly	Quarterly
RSF-0320	2014-0520	Safety Inspection Weekly Checklist	Weekly safety inspection form for self site inspection	Weekly		
RSF-0330	2014-0520	Safety Inspection Daily Checklist	Daily safety inspection form for self site inspection	Daily		
RSF-0410	2013-0905	Fall Protection Checklist	Checklist to assist in choosing fall protection systems	Reference	Reference	Reference
RSF-0420	2013-0905	Fall Protection Equipment Inspection Checklist	Checklist to assist in inspecting fall protection equipment	Daily		
RSF-0500	2013-0304	RA-LIN Personnel - Disciplinary Form	Disciplinary form for safety issues with RA-LIN employees	Once (As Needed)	Once (As Needed)	Once (As Needed)
RSF-0999	2013-0904	Equipment Inspection Form	Inspection form for equipment	Daily		
RSF-1010	2013-0905	Directions for RALIN Training Experience Summary	Guidance on how to fill out this form	Reference	Reference	Reference
RSF-1020	2013-0905	RALIN Training-Experience Summary	Summary of training and experience per employee	Once (New Hire or Update)	Once (New Hire or Update)	Once (New Hire or Update)
RSF-1030	2013-1104	Safety Training Attendance Roster	Sign-In sheet for safety briefings, toolbox topics, etc.	Per Event	Per Event (If Applicable)	Per Event (If Applicable)
RSF-1050	2014-0905	Equipment Training Plan and Certification	Documentation for training of employees	Once (As Needed)		
RSF-1100	2014-0123	Weekly Safety Topics	A list of all 52 weeks in a year with a topic per week	Weekly		
RSF-2000	2013-0905	Monthly Reporting for Internal Project Reviews	Monthly Reporting for Internal Project Reviews		Monthly	
RSF-5000	2015-0119	Worked Hours	Hours for tracking work for all on project workers (by sub)	Weekly	Monthly	Monthly
RSF-6005	2013-0905	Daily Excavation Inspection Report	Daily Excavation Inspection Report	Daily		
RSF-6010	2013-0905	Site Inspection Report	Site Inspection Report (Erosion)	Per Event		
RSF-6020	2013-0905	Storm Water Discharge Data	Storm Water Discharge Data (Erosion)	Daily		



Form Number	Version Date	Title of Form	Description of Form	Required Frequency		
				Projects	Corporate and Annex	Oxford, AL
RSF-6030	2013-0905	Daily Rainfall Log	Daily Rainfall Log (Erosion)	Daily		
RSF-6040	2013-0905	Stormwater Monitoring Records	Stormwater Monitoring Records (Erosion)	Per Event		
RSF-6050	2013-0905	Inspection Summary	Inspection Summary (Erosion)	Per Event		
RSF-6060	2013-0905	Daily Inspection Report	Daily Inspection Report (Erosion)	Daily		
RSF-6070	2013-0905	Weekly Inspection Report	Weekly Inspection Report (Erosion)	Weekly		
RSF-6080	2013-0905	Monthly Inspection Report	Monthly Inspection Report (Erosion)	Monthly		
RSF-6090	2013-0905	Construction Checklist of BMPs and Minimum Requirements	Construction Checklist of BMPs and Minimum Requirements (Erosion)	Reference		
RSF-7000	2015-0804	RA-LIN Confined Space Evaluation	RA-LIN Confined Space Evaluation	Once (As Needed)	Once (As Needed)	Once (As Needed)
RSF-7020	2015-0804	RA-LIN Confined Space Permit	RA-LIN Confined Space Permit (Permit Required Space)	Once (As Needed)	Once (As Needed)	Once (As Needed)
RSF-7030	2015-0804	Non-Permit Confined Space Pre-Entry Checklist	Non-Permit Confined Space Pre-Entry Checklist	Once (As Needed)	Once (As Needed)	Once (As Needed)
RSF-7040	2015-0903	Entry Certification of Confined Space	Entry Certification of Confined Space	Once (As Needed)	Once (As Needed)	Once (As Needed)
RSF-7050	2015-1021	RA-LIN Confined Space Plan	RA-LIN Confined Space Plan	Once (As Needed)	Once (As Needed)	Once (As Needed)
RSF-7060	2013-0905	Medical Evaluation Questionnaire - Respirator Use	Medical Evaluation Questionnaire - Respirator Use	Annual (If Applicable)	Annual (If Applicable)	Annual (If Applicable)
RSF-7090	2016-0809	Hot Work Permit	Permit for performing hot work	Once (As Needed)	Once (As Needed)	Once (As Needed)
RSF-8000	2013-0624	Master Substance(s) List	Safety Data Sheet list of substances (HAZCOM/GHS)	Annual (Per Substance)	Annual (Per Substance)	Annual (Per Substance)
RSF-8500	2013-0905	LEAD SAFETY for Remodeling, Repair and Painting	Test Kit Documentation Form	Once (As Needed)	Once (As Needed)	Once (As Needed)
RSF-9000	2014-0910	Safety Citation - Subcontractors	Citation for safety issues with sub-contractors	Per Sub (As Needed)		
RSF-9100	2014-0915	Subcontractor Competent Person (Safety and Training)	Subcontractor's acknowledgement of competent person training for safety	Per Sub (As Needed)		
Section 8 - EHS	2014-0520	Sub Employee Safety Orientation	Sub-contracted foreman's safety orientation	Per Sub (Upon Mobilization)		
RSF-9200	2015-0617	Jobsite Safety Rules	Bi-Lingual Jobsite Safety Rules	Per Sub (As Needed)		
RSF-9300	2014-0923	Project Specific Analysis (PSA)	Subcontractor's analysis of specific project expectations and hazards	Per Sub (As Needed)		
RSF-9500	2015-1013	Waiver of Safety Submittals	Waiver of subcontractor's requirement to submit safety submittals.	Per Sub (As Needed)		
OSHA Form 300	2004-01	Log of Work-Related Injuries and Illnesses	Form 1 of 3 - OSHA 300 Log; Only required if reportable events exist for reporting year	Once (Per Event)	Once (Per Event)	Once (Per Event)
OSHA Form 300A	2004-01	Summary of Work-Related Injuries and Illnesses	Form 2 of 3 - OSHA 300 Log; Required to be posted between Feb 1 to April 30 of year following the year	Annual	Annual	Annual
OSHA Form 301	2004-01	Injuries and Illnesses Report	Form 3 of 3 - OSHA 300 Log; Only required if reportable events exist for reporting year	Once (Per Event)	Once (Per Event)	Once (Per Event)
OSHA Form 101	1981-02	Supplementary Record of Occupational Injuries and Illnesses	Supplementary information for Injuries and Illnesses; Only required if OSHA requests	Once (Per Request)	Once (Per Request)	Once (Per Request)



Section 19 - ENVIRONMENTAL PROGRAM

19.1 Purpose

Environmental conditions in the workplace must comply with all laws and regulations as mandated by regulating agencies. The following is a list of government regulating agencies that RALIN projects (and work) commonly fall within:

- Occupational Safety and Health Administration (OSHA)
- US Environmental Protection Agency (EPA)
- Mine Safety and Health Administration (MSHA)
- National Institute of Occupational Safety and Health (NIOSH)
- Department of Transportation (DOT)
- US Army Corps of Engineers (USACE)

Air, land, and water are all routes for human exposures to environmental hazards and RALIN will protect all workers (and public) from workplace environmental exposures.

It is the responsibility of the installing contractor to assure installation and maintenance of all control methods meet federal, state, and local environmental laws. All hazardous materials such as asbestos, lead base paint, silica, paint, fertilizers, pesticides, and insecticides shall be stored and disposed of in such a manner so that no inadvertent run off, release or exposure will occur by whatever means are necessary.

19.2 Goal

The goal of this section is to inform employees of many hazards potentially present in the work environment.

19.3 Policy

19.3.1 Heat Illness Prevention

19.3.1.1 Purpose

Provide information on the dangers of prolonged exposure to heat on the jobsite.

19.3.1.2 Goal

Prevent any injuries to employees due to heat stress or dehydration through prevention procedures and training employees on dangers to be aware of.



19.3.1.3 Procedures

The following procedures should be practiced daily when exhaustive heat temperatures are present. (Primarily during summer months)

Supervisors shall be trained in preventing heat related illnesses and of the employer's heat illness emergency response procedures prior to supervising employees.

Measures to Control the effects of Environmental Factors

- Workers shall be provided with potable drinking water, rest, and shade. Provide a lot of cool water within proximity to the work area. Each worker should consume at least one pint of water per hour per OSHA 3154-06R
- Design tasks for the day with gradually increasing workloads and allow more frequent breaks for new workers or workers who have been away for a week or more establishing a tolerance for working in the heat (or acclimatization).
- Modify all workers' work schedules as necessary and arrange frequent rest periods with water breaks in shaded or air-conditioned areas.
- Supervisors must take personal factors into consideration before assigning a task where there is a possibility of a heat related illness occurring.

What to do when a worker is ill from heat

- Call a supervisor for help. If the supervisor is not available, call 911.
- Have someone stay with the worker until help arrives.
- Move the worker to a cooler/shaded area.
- Remove outer clothing.
- Fan and mist the worker with water; apply ice (ice bags or ice towels).
- Provide cool drinking water, if able to drink.
- IF THE WORKER IS NOT ALERT or seems confused, this may be a heat stroke. CALL 911 IMMEDIATELY and apply ice as soon as possible.
- Train workers about the symptoms of heat-related illnesses and their prevention

Heat Illness

Exposure to heat can cause illness and death. The most serious heat illness is heat stroke. Other heat illnesses, such as heat exhaustion, heat cramps and heat rash, should also be avoided. There are precautions your employer should take any time temperatures are high and the job involves physical work.



Physical work factors that can contribute to heat related illnesses should be taken into consideration before performing a task such as:

- High temperature and humidity,
- Direct sun exposure,
- Little to no breeze or wind,
- Low liquid intake,
- Heavy physical labor,
- Waterproof clothing, and
- No recent exposure to hot workplaces.

Symptoms of Heat Exhaustion

- Headache, dizziness, or fainting, and/or
- Weakness and wet skin, and/or
- Irritability or confusion, and/or
- Thirst, nausea, or vomiting.

Symptoms of Heat Stroke

- May be confused, unable to think clearly, pass out, collapse, or have seizures (fits) , and/or
- May stop sweating.

How to protect yourself and others

- Know signs/symptoms of heat illnesses.
- Monitor yourself or use a buddy system.
- Block out direct sun and other heat sources.
- Drink plenty of fluids. Drink often and BEFORE you are thirsty. Drink water every 15 minutes.
- Avoid beverages containing alcohol or caffeine.
- Wear lightweight, light colored, loose fitting clothes.
- Monitor workers for signs of illness. (Some of the heat disorders/health effects that are possible from heat overexposure are heat stroke, heat exhaustion, heat cramps, rashes, and fatigue.)

19.3.2 Cold Weather Safety/Cold Stress

19.3.2.1 Purpose

Provide information on the dangers of prolonged exposure to cold temperatures on the jobsite. The following material should be used to educate employees on the different types of cold stress and their dangers, prevention methods listed should be used when cold temperatures and windy conditions are present (mainly during winter months), and what to do in the case of an emergency caused by cold stress.



19.3.2.2 Goal

Prevent any injuries to employees due to exposure to cold temperatures and explain what to do in the case of an emergency caused by cold stress.

19.3.2.3 Policy

Procedures

An assessment will be conducted to identify the types of jobs or employees who are at risk for cold exposure.

Workers should be under constant protective observation by a co-worker or supervisor.

Employees will be informed of the dangers associated with working around unstable snow and ice build ups.

Cold weather supplies will be regularly inspected and restocked when necessary.

Training

Employees who are required to work in cold weather conditions shall receive initial and annual training regarding the health effects of cold exposure and the contents of this program.

Training shall Specifically Cover

Proper cold weather protection must be worn by employees when working in cold, wet, and windy conditions.

Cold temperatures and increased wind speed (wind chill) cause heat to leave the body more quickly, putting workers at risk of cold stress. Anyone working in the cold may be at risk.

Administering proper first aid treatment on cold induced injuries or illnesses.

Cold weather supplies will be regularly inspected and restocked when necessary

Signs and symptoms of cold weather induced health problems such as hypothermia, frostbite, and trench foot:

Hypothermia

- Normal body temperature (98.6°F) drops to 95°F or less,
- Mild Symptoms: alert but shivering, and
- Moderate to Severe Symptoms: shivering stops; confusion; slurred speech; heart rate/breathing slow; loss of consciousness; death.

Frostbite

- Body tissues freeze, e.g., hands and feet. Can occur at temperatures above freezing, due to wind chill. May result in amputation and
- Symptoms: numbness, reddened skin develops gray/ white patches, feels firm/hard, and may blister.

Trench Foot (also known as Immersion Foot)

- Non-freezing injury to the foot, caused by lengthy exposure to wet and cold environment. Can occur at air temperature as high as 60°F, if feet are constantly wet,
- Symptoms: redness, swelling, numbness, and blisters, and
- Risk Factors include dressing improperly, wet clothing/skin, and exhaustion.



Prevention

Preventive measures shall be implemented to avoid cold induced injuries.

Regularly used walkways and travel ways shall be sanded, salted, or cleared of snow and ice as soon as practicable.

RALIN Responsibilities

- Train employees on cold stress hazards and prevention,
- Provide engineering controls such as radiant heaters, and
- Gradually introduce workers to the cold; monitor workers; schedule breaks in warm areas.

Employee Responsibilities

- Know the symptoms; monitor yourself and co-workers.
- Drink warm, sweetened fluids (no alcohol).
- Dress properly:
 - Layers of loose-fitting, insulating clothes, Insulated jacket, gloves, and a hat (waterproof, if necessary)
- Insulated and waterproof boots.

Emergency Situations

Proper first aid treatment on cold induced injuries or illnesses

For Hypothermia

Call 911 immediately in an emergency. To prevent further heat loss:

- Move the worker to a warm place.
- Change to dry clothes.
- Cover the body (including the head and neck) with blankets, and with something to block the cold (e.g., tarp, garbage bag). Do not cover the face.
- If medical help is more than 30 minutes away:
- Give warm, sweetened drinks if alert (no alcohol).
- Apply heat packs to the armpits, sides of chest, neck, and groin. Call 911 for additional rewarming instructions.

For Frostbite

Follow the recommendations "For Hypothermia":

- Do not rub the frostbitten area.
- Avoid walking on frostbitten feet.
- Do not apply snow/water. Do not break blisters.
- Loosely cover and protect the area from contact.



- Do not try to rewarm the area unless directed by medical personnel. For Trench (Immersion) Foot
- Remove wet shoes/socks.
- Air dry (in warm area).
- Keep affected feet elevated and avoid walking.
- Get medical attention.

19.3.3 General Waste Management

RALIN's pre-construction efforts establish the amount of waste to be generated through estimates based on prior project history/ data prior to any project being underway. Containers for recycling and waste are accounted for in project budgets for all RALIN projects

Quantities for waste disposal activities are specific to each individual project's scope of work.

Every RALIN project has containers specific to waste type for recycling purposes. All personnel on RALIN projects will dispose properly handle and/ or store waste to promote recycling (through segregation) and to minimize the potential for a spill or impact to the environment. All outdoor receptacles must be covered to prevent dispersion of waste materials and to control any potential for run-off.

During initial site orientations, employees will be made aware of instructed as to the proper method to dispose of wastes. Instruction include disposal of non-hazardous wastes, trash, or scrap materials.

Personnel will be trained to manage and properly dispose of all wastes generated that are classified as hazardous.

General Waste Management/ Housekeeping will be a part of daily routines. In addition, activities to establish clean and organized work environments must correspond with the pace of the work. Housekeeping is an important part of daily work and jobsites will be kept clean and neat, and free from tripping and fire hazards.

There will be no onsite dump pits, nor will there be any open air burning without permits obtained from the local Fire Marshall prior to the activity.

Some common housekeeping practices for general wastes:

- ✦ Clean up all areas every day, including but not limited to, jobsite, vehicles, shop, office, equipment, and tools.
- ✦ Inspect your workplace daily for debris. Dispose of wastepaper, empty cartons, garbage, and scrap material.
- ✦ Clean up anything that is spilled on the floor as soon as possible.
- ✦ Keep aisles and walkways clear of all obstructions. Scrap lumber and other debris will always be kept clear from work areas. [1926.25(a)]
- ✦ Store materials neatly and keep them away from traffic areas.
- ✦ At the end of each phase of work, return all tools and excess material to proper storage. Clean up all debris before moving on to the next phase. Each employee is responsible for keeping work areas clean.
- ✦ Containers will be provided for collection and separation of all refuse. Covers are required on containers used for flammable or harmful substances. [1926.25(c)]



- ✦ Use non-flammable containers for disposing of scrap and waste substances. The containers should be located at convenient places.
- ✦ Know the locations of first aid and firefighting equipment. Keep the route of access to this equipment free of debris.
- ✦ Plastic bottles, scraps, paper cups, and similar rubbish shall be placed by trades' employees in trash containers for that purpose. No glass containers onsite.
- ✦ Rubbish, debris, and waste materials shall be removed from the work area daily by trade's employees.
- ✦ Nails shall be withdrawn from used lumber [1926.250(b)(8)(i)]. All nails/ screws/ sharp points will be removed from any material not immediately placed into waste containers. Form and scrap lumber with protruding nails shall be kept clear from all work areas.
- ✦ Remove combustible scrap and debris at regular intervals. [1926.25(b)]
- ✦ Vehicles and/or equipment must be free of loose debris, dirt, mud, etc., before operation on public roads.
- ✦ Whenever materials and/or trash are dropped more than twenty (20) feet, an enclosed chute shall be used. [1926.252(a)]
- ✦ Plastic bottles, scraps, paper cups, and similar rubbish shall be placed by trades' employees in trash containers for that purpose. No glass containers onsite.
- ✦ Stairways, ladders, ramps, platforms, walkways, and work areas shall be kept clear and clean of loose material and trash.
- ✦ All material must be kept back from the outer edge of a building a minimum of 10' 0" at building perimeter and 6' 0" at interior floor openings.
- ✦ Containers where combustible waste are disposed of (e.g., wood, paper, etc.) will be placed no closer than 10' (feet) from any building with proper fire protection staged at proper distances.

19.3.4 Spill Prevention/ Response

19.3.4.1 Training

Employees will be instructed on the proper response procedures for spilled materials. The training will include materials available for use, proper waste disposal, and communication procedures.

19.3.4.2 Storage

Chemical substances will be stored in accordance with manufacturer and regulator guidance in proper containers to minimize the potential for a spill. Chemicals shall be kept and stored in closed containers and exposure to storm water when feasible.

Areas where chemicals may be used or stored will be maintained using good housekeeping best management practices. This includes, but is not limited to, air quality, fire protection, clean and organized storage, labeling, and secondary containment where necessary.



19.3.4.3 Spill Control

Adequate spill kits will be procured for projects with appropriate supplies for potential spills. Supplies must be easily accessible when required, and considerations must be made for both the type and quantity of materials.

In fueling areas, absorbent should be pre-packaged in (e.g., small bags) for convenient use and small drums should be available for storage. Absorbent materials should not be washed down sanitary sewer or storm drains. *19.3.4.4*

Spill Response

Less than 10 Gallons

Personnel that spill or identify a spill of any reportable quantity of a substance on a RALIN project will notify the RALIN project superintendent in order to respond properly to minimizing impact to personnel and the environment. Information to be reported the project superintendent will include type and quantity of materials spilled.

The project superintendent will manage cleanup and proper disposal in accordance with manufacturer's recommendations.

10 Gallons or Larger

RALIN and Associates, historically and to this date, does not interact with materials and chemicals in quantities that require a "spill" to be reported to the National Response Center (NRC). Therefore, RALIN will create policies as appropriate if the scope of work requires an adjustment per regulatory requirements.

19.3.5 Gases, Vapors, Fumes, Dusts, and Mists

Exposure to toxic gases, vapors, fumes, dusts, and mists at a concentration above those specified in the "Threshold Limit Values of Airborne Contaminants for 1970" of the ACGIH, shall be avoided. (American Conference of Government Industrial Hygienists) [1926.55(a)]

When engineering and administrative controls are not feasible to achieve full compliance, protective equipment or other protective measures shall be used to keep the exposure of employees to air contaminants within the limits prescribed. Any equipment and technical measures used for this purpose must first be approved for each particular use by a competent industrial hygienist or other technically qualified person. [1926.55(b)]

19.3.6 Liquefied Petroleum Gas

Each system shall have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type.

[1926.153(a)(1)]

All cylinders shall meet DOT specifications. [1926.153(a)(2)]

Every container and vaporizer shall be provided with one or more approved safety relief valves or devices.

[1926.153(d)(1)]

Containers shall be placed upright on firm foundations or otherwise firmly secured. [1926.153(g) & (h)(11)]

Portable heaters shall be equipped with an approved automatic device to shut off the flow of gas in the event of flame failure. [1926.153(h)(8)]

Storage of LPG within buildings is prohibited. [1926.153(j)]



Storage locations shall have at least one approved portable fire extinguisher, rated not less than 20-b: c. [1926.153(L)]

19.3.7 Compressed Gas Cylinders

Put valve protection caps in place before compressed gas cylinders are transported, moved or stored. [1926.350(a)(1)]

Compressed gas cylinders shall be secured by a cart, chain, etc. always. [1926.350(a)(7)]

Cylinder valves will be closed when work is finished and when cylinders are empty or being moved. [1926.350(a)(8)]

Compressed gas cylinders shall always be secured in an upright position except, if necessary, for short periods of time while cylinders are actually being hoisted or carried. [1926.350(a)(9)]

Oxygen and fuel gas cylinders (in storage), shall be separated by a five (5) foot high non-combustible wall. The wall must have a fire resistance rating of at least one (1) half-hour or a twenty (20) foot separation. [1926.350(a)(10)]

Keep cylinders at a safe distance or shield from welding or cutting operations and place where they cannot become part of an electrical circuit. [1926.350(b)(1) & (b)(2)]

No damaged or defective cylinders shall be used. [1926.350(c)(3)]

Oxygen and fuel gas regulators must be in proper working order while in use. [1926.350(h)]

19.3.8 Asbestos

It is the policy and intent of RALIN to provide a safe working environment for all RALIN employees, and trade or vendor employees, on each of RALIN jobsites and to ensure all employees and trades/vendors comply with 29 CFR 1926.1101 and the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Asbestos is not as common of a construction material as it was years ago. Therefore, contact with asbestos containing materials will be generally during renovations of buildings that were built before the year 1975.

The typical areas where asbestos containing materials are found are:

- ✦ Plumbing and mechanical pipe insulation
- ✦ Floor and ceiling tile
- ✦ Floor and ceiling tile glues and adhesives
- ✦ Asbestos lined pipes, typically used in underground situations

A survey of the jobsite for asbestos containing materials must be performed by an approved testing company prior to any work being performed on the jobsite. This is typically performed by the owner of the property, and a copy of the results, are forwarded to RALIN

These areas require special attention and demolition by authorized personnel only. The superintendent of each jobsite should contact RALIN if asbestos containing materials are detected in a building under construction, demolition, or renovation.

The following is a list of precautions that should be followed when asbestos containing materials are known to be present. Only certified, fully licensed, and insured asbestos abatement contractors shall remove asbestos.



- ✦ A negative pressure environment must be placed around the asbestos-containing material to prevent loose particles of asbestos from entering the atmosphere.
- ✦ No sawing, cutting, chipping, grinding, or any other procedure that will cause loose particles (friable) of asbestos to enter the atmosphere is permitted.
- ✦ Air purifying respirators, gloves, and disposable coveralls will be required for employees who must work with and remove asbestos-containing materials.
- ✦ When a quantity of asbestos-containing material is to be removed, trash bags that are capable of being sealed airtight and marked **ASBESTOS CONTAINING MATERIAL** must be used. The trash bags must be taken to an approved landfill.
- ✦ Employees are to be provided a hand-washing station and an area to change clothes before entering the work area.

An area must be provided for breaks. There shall be **NO SMOKING OR EATING** in work areas.

- ✦ Proper training of employees that are to work with asbestos-containing material is to be performed by the superintendent or a competent person before the work begins.
- ✦ Negative pressure fans containing HEPA filters shall be used in large areas to ensure that there are no asbestos particles leaving the containment area.
- ✦ HEPA filters shall be used in all vacuum cleaners that are used to collect loose materials, and the contents of the vacuum cleaners are to be disposed of in sealed and clearly marked trash bags.
- ✦ Clean a HEPA vacuum with the same level of protection as the environment being addressed as to not contaminate yourself or the work area while cleaning.
- ✦ Prior to cleaning HEPA vacuums, read and follow manufacturer recommendations. A second HEPA vacuum is recommended to help clean the first one.
- ✦ Follow these steps when cleaning or changing filters and bags in a HEPA vacuum:
 - The vacuum should only be opened and cleaned in an asbestos work area.
 - Wear a respirator and protective clothing when changing vacuum cleaner bags or filters, or when cleaning the unit.
 - Cover floors with a plastic drop cloth.
 - When opening the vacuum, mist the air. Remove the full bag and dispose of it in a properly labeled asbestos waste bag.
 - Wet wipe the inside of the HEPA vacuum and clean it with the second HEPA vacuum.
 - Replace the bag.



- Wipe down the vacuum and plastic drop cloth. Dispose of the drop cloth as asbestos waste.
- Decontaminate in accordance with decontamination procedures.
- Dispose of protective suits and HEPA cartridges as asbestos waste.
- ✦ "Asbestos waste" includes any type of asbestos containing material (ACM) and contaminated materials that are removed during an O&M task.
- ✦ Disposable supplies are also considered asbestos waste. Used poly sheet plastic, duct tape, rags, disposable suits, and used HEPA filters, are some examples of asbestos waste.
- ✦ Asbestos waste must be sealed in airtight containers.
- ✦ Asbestos waste containers must be labeled. An OSHA warning label and EPA NESHAP labels must be on every waste package. Labels warn people that the package contains asbestos. The EPA NESHAP label lists the name of the asbestos generator and the location of the job.
- ✦ Waste containers must be airtight. Standard practice uses 6 mil plastic bags or barrels. When using plastic bags, suck excess air out of bags using a HEPA vacuum. Bags must then be sealed with duct tape and "goose necked" (neck of the bag is taped closed, folded over, and taped again).
- ✦ Asbestos barrels must include airtight liners and sealable tops.
- ✦ Asbestos waste not available for disposal immediately must be stored in a safe place (such as a lockable closet) with warning signs. All asbestos waste must be disposed of at an EPA-approved waste disposal site by a permitted waste hauler. Asbestos waste cannot be thrown out as normal garbage.
- ✦ Employees exposed to asbestos, must be evaluated by a physician professionally qualified as a B reader of x-rays.

19.3.9 Lead

19.3.9.1 Purpose

The following section describes the procedures and precautions to be adopted on all jobsites in which employees could receive significant exposures to lead dust or fumes. Lead fumes are generated from welding or cutting on steel, girders, or other metals coated with lead-based paint, soldering to join copper pipe, radiator repair, construction activities with fume exposures in aluminum, brass or bronze foundries, electronics or battery plants, and glass and ceramic facilities. Lead dusts are commonly associated with the disturbance of contaminated ground, sandblasting, or abrasive action on surfaces with lead paint, demolition of interior walls painted with lead paint, and decontamination of certain manufacturing operations.



19.3.9.2 Policy

- ✦ Prior to any demolition or retrofit, all work areas will be surveyed by a competent person to determine existing and predictable lead hazards. It is the responsibility of the overall superintendent of each jobsite to ensure that the survey is conducted.
- ✦ Appropriate material samples will be taken and sent to an approved laboratory to determine the lead content in each material under question. Paints, coatings, and alloys with lead in concentration of 0.4% or more shall be considered a lead source.
- ✦ Where a potential exposure to lead dust exists, spray-misting equipment shall be used for dust control.
- ✦ In an enclosed area, during welding or cutting on surfaces with lead containing paints, local exhaust ventilation will be used to remove the fumes. The ventilation shall be evaluated periodically to maintain its effectiveness. If local exhaust is not possible, then the paint will be stripped away from the surface to be welded or cut to twelve (12) inches on each side of the cut or welding point. Proper respiratory protection and other PPE must be provided to the employee doing the scraping.
- ✦ In an open-air setting for welding and cutting on lead-contaminated surfaces, respiratory protection is mandatory with respirators approved by the National Institute of Occupational Safety and Health (NIOSH).
- ✦ Each employee and trade on a RALIN project must comply with the 29 CFR Part 1926.62.

19.3.9.3 Air Sampling

For potential lead exposures that cannot be eliminated through engineering means, personal air samples shall be conducted to determine the extent of exposure. The samples shall be for a complete shift and represent each potentially exposed job classification in each work area for the shift with the highest potential exposure. Until sample results are available, workers in the immediate area shall be required to wear respirators according to each established exposure or activity below:

Half mask air purifying respirators	Powered air purifying respirators	Supplied air respirators
<u>Moderate</u>	<u>High</u>	<u>Extreme</u>
Manual demolition structures / walls	Lead in mortar: burning	Abrasive blasting
Manual scraping	Lead in paint: tool cleaning	Welding
Manual sanding	Cleanup spent abrasives	Cutting
Heat gun applications	Abrasive blasting enclosure:	Torch burning
Power tool clean with dust collector		
Spray painting		

Until sampling results are available, employees shall be provided with appropriate protective clothing, suitable change areas, hand-washing facilities, and blood sampling for analysis of blood lead and zinc protoporphyrin (ZPP) levels.



19.3.9.4 Negative Results

If the initial personnel samples on each exposed job category show that the airborne lead concentrations are below thirty (30) micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), the result is negative. A written record must be documented that shows:

- ✦ Date
- ✦ Location
- ✦ Job activity
- ✦ Name
- ✦ Social security number
- ✦ The name of the person who made this determination should also be included. ✦ No further testing is required unless the nature of the activity changes.

All surfaces shall be kept free of accumulations of lead dust or fumes. Vacuums with HEPA filters shall be used for cleanup. Compressed air cleaning is prohibited.

Hand washing facilities will be provided. Where showers are not available, employees will be required to wash their hands and face at the end of a work shift, and before taking breaks, eating, smoking, etc. If disposable coveralls and foot protectors are provided, they will be disposed of in approved containers before the employee leaves the work area.

19.3.9.5 Action Levels

Within five days, each employee will be notified in writing of the test results that represent that employee's exposure.

Records of air monitoring and medical evaluation tests shall be kept for five (5) years.

If any samples show job categories above the thirty (30) $\mu\text{g}/\text{m}^3$ action level but below the fifty (50) $\mu\text{g}/\text{m}^3$ permissible exposure limit (PEL), follow-up samples must be taken at least every six (6) months on each employee classification that has a potential lead exposure.

Initial medical examinations, including lead and zinc ZPP blood level tests, are required for anyone who must work in an area or activity in which the airborne concentration of lead exceeds the thirty (30) $\mu\text{g}/\text{m}^3$ action limit. If the test results show blood lead concentrations greater than forty (40) $\mu\text{g}/\text{dL}$, additional blood tests shall be conducted every two (2) months. For employees with exposures above the action level for any thirty (30) days in a twelve (12) month period, tests for lead and ZPP levels in the blood will also be conducted at two (2) month intervals. Samples will be taken under the direction of a licensed physician and analyzed by an approved laboratory. Follow-up blood tests must be conducted within two (2) weeks of notification for employees with blood concentrations greater than fifty (50) $\mu\text{g}/\text{dL}$, and the employee will be removed from any workplaces with potential lead exposures.

Training in addition to that described above in the "Negative Results" section will be provided and will include:

- ✦ The contents of the lead standard
- ✦ Specific nature of operations that could lead to lead overexposures
- ✦ Proper use of respirators



- ✦ Medical surveillance program Engineering controls
- ✦ Lead exposure control program
- ✦ Employees' right of access to records
- ✦ Suitable work practices

19.3.9.6 Permissible Exposure Limit (PEL)

If initial air test results show that employee exposure concentrations exceed the PEL, a written notice shall be provided to the employee advising him or her that the exposure was above the PEL and giving a description of the corrective action to be taken to bring concentrations within acceptable limits. Additional air tests must be conducted on at least a quarterly basis.

Engineering and work practice controls will be used to bring employee exposure concentrations below the PEL. When mechanical ventilation is used, the performance of the system shall be evaluated and documented daily.

For locations or activities for which respiratory protection is mandatory, the use of respirators will conform to the company's respiratory protection program, including the provisions for selection, medical evaluation, fit testing, maintenance, and training.

Where employees are subject to airborne lead concentrations in excess of the PEL or where they may come into contact with lead compounds that could cause skin or eye irritation, employees will be required to wear protective clothing such as coveralls, hats, protective footwear, and/or face shields or goggles. Protective clothing shall be cleaned and provided on at least a weekly basis.

Food, beverage, and tobacco products are not allowed in areas where airborne lead exposures exceed the PEL. Clean change areas are to be provided, including separate lockers for work clothing and street clothing, shower facilities, and lead-free eating facilities. Employees are required to wash both hands and face prior to eating, drinking, smoking, or applying cosmetics. No employees from high lead concentration areas may enter an eating facility unless surface lead dust has been removed by vacuuming or other cleaning method that collects lead dust. Adequate hand-washing facilities will be provided.

The requirements for blood tests and ZPP are the same as in under "Action Level".

The training requirements are the same as those in under "Action Level".

Warning signs must be posted in areas where the PEL is being exceeded. The signs will read:

WARNING!
LEAD WORK AREA
POISON
NO SMOKING OR EATING
NO ADMITTANCE WITHOUT AUTHORIZATION

Regulated areas will be established and roped off. Non-essential workers will be routed around these areas.

19.3.9.7 Exposure Control

The following controls will be used to keep airborne lead concentrations below the action level of thirty (30) $\mu\text{g}/\text{m}^3$:



<u>Activity</u>	<u>Control</u>
Soft demolition / interior walls (lead based paint)	Mist drywall prior to sawing or breaking
Area cleanup lead contaminated dust	HEPA vacuum
Welding or cutting – coatings with lead (enclosed space)	Local exhaust ventilation or clean metal for four inches
Welding or cutting – coatings with lead (open air)	Respiratory protection or clean metal for four inches
Abrasive blasting / lead coatings	Supplied air respirators
Spray painting / lead content	Use paint with no lead content

For each activity in which lead is emitted, a description will be provided including:

- ✦ The activity
- ✦ The nature of the lead source
- ✦ Equipment in use
- ✦ Engineering and other controls
- ✦ Crew size
- ✦ Work practices and procedures
- ✦ Maintenance practices
- ✦ Any engineering plans or studies used to select the controls should also be documented.

Frequent and regular inspections will be provided at the jobsites by a competent person.

Copies of all air monitoring tests, which identify airborne lead concentrations, will be attached to this program.

A detailed schedule of equipment procurement, construction contracts, and other plans for implementation of the protection program will also be attached.

19.3.10 Hexavalent Chromium

19.3.10.1 Policy

Hexavalent chromium [Cr(VI)] compounds are widely used in the chemical industry as ingredients and catalysts in pigments, metal plating and chemical synthesis. “Hexa-chrom” can also be found in the construction industry through welding on stainless steel or on Hexa-chrom painted surfaces. The major health effects include lung cancer, nasal septum and skin ulcerations and contact dermatitis. The purpose of this policy is to prevent employee exposure to Hexa-chrom compounds during construction activities. Each contractor working on a RALIN project must comply with 29 CFR Part 1926, Construction Industry Regulations, Subpart Z – Section 1126, Chromium (VI), in addition to the following guidelines.



19.3.10.2 Procedures

Permissible Exposure Limit (PEL)

- Since this construction activity is limited to specialty work, RALIN will direct the Trade to provide specific Job Hazard Analysis (JHA's) and Pre-Task Planning (PTP) meetings to address potential exposure.
- The Employer must ensure that no employee is exposed to an airborne concentration Cr(VI) in excess of five (5) micrograms per cubic meter of air ($5 \mu\text{g}/\text{m}^3$) calculated as an eight (8) hour time-weighted average (TWA).
- Engineering controls will be the preferred method to achieve the Permissible Exposure Limit (PEL).

Exposure Determination

The trade must determine the eight (8) hour TWA exposure for each employee exposed to Cr(VI). This may be accomplished using two options; scheduled or performance-oriented monitoring.

Scheduled Monitoring

- The trade must perform initial monitoring to determine the eight (8) hour TWA for each employee based on a sufficient number of personal breathing zone samples.
- If the trade does representative sampling, it must be conducted on the employee(s) expected to receive the highest exposure.
- If the monitoring indicates that employee exposures are below the action level ($1/2$ the PEL or $2.5 \mu\text{g}/\text{m}^3$), and this is confirmed by another monitoring seven (7) days later, the employer may discontinue monitoring.
- If the monitoring indicates that employee exposures are at or above the action level, the trade must perform periodic monitoring at least every six (6) months or above the PEL must repeat every three (3) months.
- Performance Option: The employer shall determine a TWA exposure for each employee based on any combination of air monitoring data or objective data enough to characterize employee exposure.

Methods of Compliance

- As stated previously, engineering and work practice controls must be used to reduce and maintain employee exposure to Cr(VI) to or below the PEL.
- If feasible engineering and work practice controls are insufficient to reduce exposure below the PEL, then respiratory protection must be used.
- The trade will not be allowed to rotate employees to different jobs to achieve compliance with the PEL.

Respiratory Protection

- Respiratory protection use must comply with RALIN Respiratory Protection Program.
- The trade must provide respiratory protection in the following circumstances:
 - Periods necessary to install or implement feasible engineering or work practice controls.
 - Work operations where an employer has implemented all feasible engineering and work practice controls and such controls are not enough to reduce the PEL.
 - Emergencies

Protective Work Clothing and Equipment

- Where there may be a hazard to the skin or eyes from exposure to Cr (VI) the trade must provide, at no cost, protective clothing or equipment to the employee.
- The trade must ensure that the employees remove all clothing and equipment that may be contaminated with Cr (VI) when the work is complete or at the end of the shift.
- The trade must ensure that chromium-contaminated clothing is not removed from the workplace.
- When contaminated protective clothing or equipment is removed for laundering or cleaning, the trade must ensure that it is stored and transported in impermeable bags or containers.
- The trade must inform any person who launders or cleans clothing or equipment of the potential effects of exposure to Cr (VI) and that the clothing or equipment should be laundered or cleaned in a manner that minimizes skin or eye contact.

Hygiene Areas and Practices

- Where protective clothing and equipment is required, the trade must provide change rooms that comply with 29 CFR 1926.51.
- Where skin contact may occur, the trade must provide hand washing facilities that comply with 29 CFR 1926.51.

Medical Surveillance

- The trade must make medical surveillance available, at no cost, to employees who meet the following criteria:
 - Those who are or may be occupationally exposed to Cr (VI) at or above the action level for thirty (30) or more days a year.
 - Those who are experiencing signs or symptoms of adverse health effects associated with Cr (VI) exposure.
 - Those exposed in an emergency.

Communication of Chromium

- Must follow the same communication of hazardous chemicals highlighted in RALIN Hazard Communication Program.

Recordkeeping

- The trade must maintain the following data records:
 - Air monitoring
 - Historical monitoring
 - Objective data
 - Medical surveillance

19.3.10.3 Roles and Responsibilities

RALIN management conducts inspections of the workplace for compliance with this policy.

- Discuss policy applications during project orientations and pre-planning meetings with trades.
- Conduct pre-planning meetings and require the use of Job Safety Analysis (JSA) and Pre-Task Planning (PTP) meetings.



- Trade Management will comply with and furnish materials necessary to meet the requirements of RALIN policy.
- Attend and participate in any and all project orientations, pre-planning meetings, JSA discussions and PTP meetings.
- Trades' employees attend and participate in any and all project orientations, pre-planning meetings, JSA discussions and PTP meetings.
- Trades' employees will comply with this policy.

19.3.11 Silica

19.3.11.1 Policy

Exposure to silica can lead to silicosis, a serious and sometimes fatal respiratory disease. Silicosis develops from being exposed to and breathing in silica dust. Excessive amounts of silica dust may be generated during activities such as: sandblasting, rock drilling, roof bolting, foundry work, stonecutting, drilling, quarrying, brick / block / concrete cutting, gunite operations, lead-based paint encapsulate applications, asphalt paving, cement products manufacturing, demolition operations, hammering, and chipping and sweeping concrete or masonry.

Refer to the [Silica section](#) of this EHS program for RALIN's comprehensive policy regarding respirable crystalline silica.

19.3.12 Mold

19.3.12.1 Policy

RALIN Mold Policy was established to develop suggested practices to assist and provide guidance to the company in connection with possible mold contamination. The company has developed specific protocols to guide RALIN supervision regarding mold, including the remediation process. All documents and forms are in the Claims folder in the RALIN Document Management System.

The suggested practices begin once mold has been detected in the building and continue through complete remediation.

The key to these practices is rapid response with prudent and reasonable judgment made depending on each situation.

19.3.12.2 Procedures

- Initial Identification and Assessment – Once mold has been discovered, the company is to investigate, document and identify the problem and assess the magnitude of the situation. An initial call must be made to Safety Coordinator.
- Notification – All communications shall be legally protected by addressing the correspondence to RALIN and copying only those with a need to know.
- Remediation Evaluation – Working in conjunction with RALIN the supervisors should determine the level of remediation needed and the need for external expertise.
- Evaluate Responsibility – It is critical that the source of the mold is determined, and a root cause is identified.
- RALIN will determine what caused the mold contamination and who is responsible for the remediation.



- Parties on Notice – As soon as reasonably possible, the Claims Manager shall place the culpable parties on notice.
- Refer to RALIN Purchasing Manual for guidance in twenty-four (24) hour and three (3) day notice letters per Subcontract Form 36. The Project Manager must notify the trade that RALIN is proceeding to remediate the mold issue and that the trade will be held accountable for the cost.
- Crisis Management – Depending on the extent of contamination, there may be a need for public relations involvement to minimize exposure.
- Remediation Protocol – RALIN will manage the remediation if the mold with either a consultant and/or remediation contractor. In no case will RALIN employees be involved in the remediation.
- Closing Report – Maintaining Legal Privilege, complete Interim Mold Closing report and Forward to RALIN

19.3.13 Nuisance Dust

Nuisance dust is generally created by normal construction activities and should be controlled or contained within the construction area.

- When working within an office / public environment, special precautions need to be taken to protect the quality of air by all possible means. Some examples are increasing the outside air flow to the Air Handlers, adding additional filters on return air diffusers, creating negative pressure environments, using HEPA vacuums and negative pressure fans to filter the environment.
- When working with cleaners and solvents needed for cleanup, always read all SDS(s) before using in a controlled air environment, which could affect surrounding personnel.
- Always contact the employer of surrounding employees with a schedule of work activities and coordinate any special activities that may affect the quality of air near them.
- Always ask surrounding employers if any of their employees have medical conditions, which may be triggered by nuisance dust, fumes, mist, etc. from construction activity. These employees need to be relocated as far away from construction activities as possible. Asthma, allergies or bronchitis type medical conditions may be affected with even the smallest amount of dust or fumes entered the environment.
- Always contact RALIN when nuisance dust conditions may occur around the general public, prior to beginning construction.
- Workers required to work around nuisance dust environments may be given NIOSH HEPA 95+ respirators or required to wear proper respirators per company policy and respirator program.

19.3.14 Erosion Control

19.3.14.1 Erosion and Sediment Control Plan

It is the intent of RALIN to protect the environment and state waterways through proper erosion and sediment control methods set forth by the governing federal, state, or local authority of the Environmental Protection Division Department of Natural Resources. The following narrative concerns scopes of work performed with the state of Georgia.

RALIN will comply with all laws and regulatory requirements applicable to the job site, no matter the location.

Each jobsite that involves land disturbance of any amount requires a Land Disturbance Activity (LDA) permit from the governing authority which has jurisdiction where the jobsite is located or file a Notice of Intent (NOI) to be covered under Georgia's National Pollutant Discharge Elimination System (NPDES) permit if there is no Local Issuing Authority (LIA) or if the project involves the disturbance of land over one acre it requires a LDA Permit and the filing of an NOI (Notice of Intent). There are other thresholds for applying for a NPDES permit, and those requirements are found in Georgia's General permit number GAR100001, or GAR100002, or GAR100003.



Every project where RALIN is a permittee, there shall be a person on site with a current Level 1A training card (blue) issued by the Georgia Soil and Water Conservation Commission (GSWCC) when land disturbing activities are underway. Every contractor working under RALIN who disturbs the earth will either have a current Level 1A card or an "Awareness Card" (white).

A NOI must be submitted fourteen days prior to any land disturbance. The proper office to which the NOI is submitted can be found in the General Permits or on GSWCC website (www.gaswcc.org). It is the responsibility of the owner or operator or both to obtain the Land Disturbing Activity (LDA) Permit and/or the NOI. The NOI is to be submitted using some recognized service that can track the submittal such as USPO, UPS, FedEx or courier. The receipt for mailing is enough proof of submittal. Retain a copy of the permits and submittal receipts on site and for three years after the Notice of Termination (NOT) is submitted. The NOT is submitted everywhere a NOI was submitted.

19.3.14.2 Important Points

There must be an Erosion, Sedimentation and Pollution Control Plan (ES&PC Plan or Plan) prepared by a professional engineer, architect or other design professional licensed in the State of Georgia who has completed the Level 2 certification course. That plan calls for certain certifications by the designer such as having visited the site prior to preparing the plan, that the plan meets the requirements of the "Manual for Erosion and Sediment Control in Georgia", and the soil and water quality of the site. This plan must be submitted to the LIA when applying for the LDA.

If there is no LIA, the plan must be submitted to the Environmental Protection Division (EPD) when submitting the NOI.

If there is a LIA, there is no need to submit the plan to EPD unless the disturbed area is over fifty acres.

The plan will be divided into three phases and the Best Management Practices (BMPs) must be set forth for each phase: initial, intermediate, and final phase. The plan must be either approved by the LIA, GSWCC, EPD or other approved plan reviewer who has been properly certified by completing the same Level 2 course as the designer.

Within seven days of beginning initial construction the design professional will visit the site to determine if the BMPs have been installed per his plan and if any changes must be made. Procure any necessary change orders and proceed to make any additions or corrections. Procure from the designer a letter stating he has made the visit, and all is in order. This is a must. The "BMP Defense" states that RALIN has a complete defense against any allegation of non-compliance if the BMPs are properly designed, installed, and maintained. This letter will provide the first two items of the Defense.

Inspections as set forth in the General Permit are required to be performed daily (when construction is going on), weekly and monthly by all permittees. These inspections will be performed under the direction of or by the person possessing the Level 1A or higher certification, and he will sign the inspection report. Any deficiencies or repairs will be corrected immediately. Reports are to be kept on site until the NOT is submitted and for three years after.

If the plan calls for monitoring, monitoring will be done at the points so designated on the plan. Monitoring will be done during normal business hours and on normal business days per the permit. The first monitoring will be within forty-five minutes of the first ½ inch rainfall event after clearing and grubbing has been completed. The second occasion to monitor is the first ½ inch rainfall event after mass grading is done or ninety days after the first monitoring, whichever comes first. If all is in order that is all the monitoring that is necessary. If all is not in order, make any necessary repairs or additions and monitor again until the results are in line with the plan. Samples must be analyzed within forty-eight hours and a summary of that monitoring submitted to EPD by the 15th day of the



month following the month in which the monitoring was done. Keep copies on site and for three years after the NOT.

If any corrections are necessary, make them and note on the plans. If the change involves a design change involving hydrology factors the designer must sign off on it and the plan resubmitted for approval. Local inspectors can only point out noncompliance with the plan or where lack of maintenance has caused a violation. They are not qualified to make adjustment to the design. They can issue a "Stop Work Order" for any land disturbance, not general construction, if a stream buffer has been encroached upon or this is the third violation of the permit.

When the entire project has reached final stabilization and all storm water discharges from the site have ceased a NOT must be submitted. Wherever a NOI was sent, send the NOT. Use certified mail or other tracking methods. Keep a copy of the NOT for three years.

Any correspondence should be sent via certified mail (or similar) and keep a copy of all plans, permits, reports, inspections, monitoring, videos, pictures, newspaper clippings, etc. for three years after the NOT.

The following is a list of activities, which will help maintain erosion and sediment control:

- All excavations shall be conducted in such a manner to maintain and minimize the erosion of sediment onto the project site.
- Whenever feasible, natural vegetation shall be retained, protected, and supplemented.
- The disturbed area shall be kept to a minimum whenever possible and shall be stabilized as quickly as possible or at least within fourteen days.
- No land disturbance shall endanger or encroach upon adjoining properties or buffer zones.
- Grading equipment shall not cross state waterways without means of bridges or culverts.
- Permanent vegetation and structural erosion control methods must be installed as soon as practical.
- All construction entrances / exits will have soil underlayment / stabilization fabric installed with a minimum cover of 6" - 8" of stone. As a minimum, the area should be 20'-0" in width and 50'-0" in length or whatever is shown on the approved plan.
- Entrances / Exits used for heavy trucks may require a truck wash-down station to remove dirt, mud, and loose debris from vehicles or equipment before they can enter public streets. Position such operations such that the mud does not flow off the site and the vehicles do not track through what was washed off.
- All surrounding streets and roads surrounding the jobsite, including entrances and exits onto the project, will require a street cleaning / wash truck or a street sweeper to keep all streets free of construction debris. This should be used on an as needed basis or in accordance with the erosion control specifications that pertain to the jobsite. If this becomes the "norm", redo the exit and tire washing operation as this should not occur.
- Establish a parking area (for employees) that is paved or composed of gravel. Only allow vehicles on un-graveled or unpaved areas that need to be there and keep that to a minimum. Each driver is responsible for their own vehicle including local fines (\$2,500+).



Section 20 - HAZARD COMMUNICATION PROGRAM

20.1 Purpose

RALIN has developed a Hazard Communication (HazCom) Program to ensure a safe working environment for all company employees, and trade and vendor employees.

RALIN will make every effort to accomplish this goal and provide a safe workplace through employee training, compiling hazardous chemical information, and labeling all containers. The Safety Committee is the overall coordinator of this program. The superintendents and project managers are responsible for container labeling, warning signs, safety data sheets (SDS), and employee training. Under this program, employees will be informed of the content of the Hazard Communication Program, the hazardous chemicals on the jobsite, safe handling procedures, and measures to take to protect themselves when using these chemicals. Each employee is required to sign a Hazardous Communication Certificate.

20.2 Goal

The goal of this program is to provide information to employees regarding substance, chemical and material hazards about handling, manipulating and personal exposures.

20.3 Policy

20.3.1 List of Hazardous Chemicals

The superintendent will maintain a list of all hazardous chemicals not exempted by OSHA's "Consumer Product" exemption. This list will be posted in the superintendent's trailer and available for all employees upon request.

20.3.2 Safety Data Sheets (SDS)

The superintendent and/or project manager will maintain a notebook containing RALIN's Hazard Communication Program and SDS sheets. This notebook will be readily available to all employees on the jobsite during any hours of operations.

Most substances maintained on a RALIN project are covered within OSHA's "Consumer Product" exemption.

The consumer product exemption applies to the use of consumer products only if the employer can demonstrate that products are used in the same manner (e.g., with the same frequency and duration of use) as a normal consumer would utilize them for personal use (at home).

If employees are routinely exposed to hazardous chemicals, then they would be required to be afforded the chemical hazard information available through SDS and hazard communication training. It is the responsibility of the employer to determine employee exposure and ascertain if the frequency of use/exposure is indeed not more than that which would be experienced by a normal consumer.

Information on the SDS sheets must contain the following:

- Name of product
- Hazardous ingredients and primary entry into body
- Physical data
- Fire and explosion data
- Health hazards
- Reactivity
- Spill or leak procedure
- Special protection information



- Special precautions

Each superintendent will monitor employees under his supervision for proper training and proper precautions prior to the hazardous chemical's introduction to the jobsite.

Each trade is required to supply a Hazard Communication Program and SDS(s) to RALIN. The company will rely on manufacturers, labels, or SDS(s) as an evaluation of the various hazards of the chemicals used on the jobsite.

20.3.3 Labels and Other Forms of Warning

The superintendent and/or project manager is designated to ensure that all hazardous chemicals on the construction site are properly labeled, tagged, or marked with the following information:

- Identity of the hazardous chemical(s)
- Appropriate hazard warnings
- Name and address of the manufacturer, importer, or other responsible party

Since chemical manufacturers are required to label their containers of hazardous chemicals, RALIN will use these labels as the primary means of warning employees about the product. Labels are not to be removed from any container or defaced in any manner. If a label is missing or illegible, notify the jobsite foreman or superintendent immediately.

The superintendent and/or project manager will refer to the corresponding SDS(s) to verify label information. Small containers into which materials are drained for use that day by the employee drawing the material do not require labeling if the container does not leave the employee's work area within his shift and the material is returned to the original storage container at the end of the work shift. The superintendent and/or project manager will check all containers upon receipt onsite, and monthly thereafter, to ensure that all containers on the site are labeled and that the labels are up to date.

20.3.4 HazCom Training

Each employee who works with or is potentially exposed to hazardous chemicals will receive initial training on the Global Harmonization System (GHS)/ Hazard Communication Program and the safe use of those hazardous chemicals by the using trade. Additional training will be provided by the using trade for employees whenever a new hazard is introduced into their work areas.

The training will emphasize these elements:

- Global Harmonization System
- A summary of the standard and this written program.
- Hazardous chemical properties including visual appearance and odor, and methods that can be used to detect the presence or release of hazardous chemicals.
- Physical and health hazards associated with potential exposure to workplace chemicals.
- Procedures to protect against hazards; e.g., personal protective equipment, work practices, and emergency procedures.
- Where safety data sheets are located, how to understand their content, and how employees may obtain and use appropriate hazard information.
- Employees shall be routinely questioned to ensure they understand the hazard communication program.

It will be company policy to provide training regularly in "Toolbox" Safety Training Sessions as the hazards change or when a new hazard is introduced to the jobsite.



20.3.5 Trade Employees

RALIN will advise trades of hazardous chemicals. In addition, the trades will be notified of the location and availability of the SDS(s).

Each trade bringing chemicals onsite must provide the appropriate hazard information, including the labels used and the precautionary measures to be taken in working with and storing these chemicals. Each trade will submit an SDS book, including an index, to RALIN superintendent at least ten (10) days prior to mobilization on the jobsite.

20.3.6 Non-Routine Tasks

Employees shall be trained in the use of hazardous materials when those materials are used in performing nonroutine tasks. Non-routine tasks may include work that is not consistent with typical duties or tasks that involve work with chemicals that may not be labeled.

20.3.7 Community Right-to-Know

Each jobsite location will cooperate with Federal, State, County and City officials to comply with requirements of the OSHA standards regarding hazardous materials onsite.

Other contractors, trades, and trades of trades will be notified of the RALIN Hazard Communication Program and the location of SDS(s) on the jobsite.

Section 21 - RESCUE PLAN

21.1 Purpose

Provide general guidance on considering solutions and developing guidance on various rescue plans for dynamic conditions often encountered on a RA-LIN site.

21.2 Goal

Create plans in accordance with these templates to properly ensure that rescue plans are in place in the case of a fall or confined space emergency.

21.3 Policy

Each RALIN jobsite shall evaluate and develop a rescue plan to account for all expected instances where workers have the potential to need assistance after an accident. Some examples include:

- Fall(s);
- Confined Space(s);
- Cave-In / Material Engulfment;
- Caught Between/ Struck By;
- Explosions;
- Fires;
- Adverse Weather;
- Medical Conditions;
- Vehicle Accident;
- Workplace Violence;
- Spills; and
- Submersion (e.g. Water).

21.3.1 Roles and Responsibility

RALIN project management is responsible for developing rescue plans, training project workers, and implementing rescue plans.

21.3.2 Training

All employees must be trained in the following as it pertains to rescue plans:

- Emergency Contact Information; and
- Site Specific Rescue Plans.

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the rescue plan changes or when a worker demonstrates insufficient skill or understanding regarding rescue operations.



Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

21.3.3 Inspection and Maintenance

Prior to every shift and major task beginning, rescue specific equipment will be inspected to verify operational readiness. Defective or damaged equipment shall not be used and shall be removed until a replacement is provided, or maintenance restores the equipment to original working order.

21.3.4 Evaluations of Site-Specific Conditions

Evaluations of site-specific conditions are paramount to develop and create an effective rescue plan. Common factors to consider follow.

21.3.4.1 Communication Barriers and Limitations

Consider any factor that may limit communications: verbal, visual, audible, digital or otherwise. Some of the following are examples:

- The native language of worker(s) may confuse a situation or delay rescue efforts.
- Radio service connectivity may be affected due to distance, surrounding structures, ongoing weather or battery power on portable or mobile devices.
- Cellular service connectivity may be affected due to network issues, surrounding structures, ongoing weather or battery power on portable or mobile devices.
- Internet service connectivity may be affected due to network issues, ongoing weather or battery power on portable or mobile devices.
- Noisy environments may prevent audible communications from being understood.
- An injured worker may be unable to communicate due to the extent of injuries.

21.3.4.2 Equipment Requirements

Consider equipment needs to aid in the rescue of worker(s) based on the scope of work being performed. Factors or hazards to account for when evaluating worker rescue whether responding to or transporting a worker:

- Heights or depths may require high angle rescue equipment, rope, lifts, cranes, winches, tripods, etc.
- Challenging terrain or routes may require walking, ATVs, boats, helicopters, etc.
- Limited means of egress (e.g. confined spaces) may require specialty extraction equipment.
- Atmospheric issues may require specialty PPE (e.g. SCBA, Level D), instrumentation, ventilation, etc.
- Energy sources may require skilled or specialized workers with equipment to remove or minimize the hazard for rescuers or the victim.
- Entrapment may require excavation equipment, shoring, ventilation, winches, tripods, etc.
- Fire or Explosive issues may require intrinsically safe devices, ventilation, specialized PPE, etc.
- Hazardous Materials may require ventilation, specialized PPE, cleanup equipment, etc.



21.3.4.3 Survival Time

Consider maximum amounts of time where worker's injuries still exist as non-life threatening.

21.3.4.4 Emergency Responders

Contact coordinate with and discuss with all local emergency responder's specific to site conditions and potential scenarios. Consider:

- 911 Service speed;
- Professional rescue response time (OSHA requires response to aid an injured worker to be 3-4 minutes);
- If OSHA response time cannot be met, then what are the alternatives. Some examples may be:
 - Alternative work practices
 - Remove the hazard
 - Control the hazard
 - PPE
 - Standby Contracted Rescue
 - Train Onsite Rescue Crew
- Per OSHA's 29 CFR Part 1910.151(b) – In the absence of an infirmary, clinic, or hospital in near proximity to the workplace which is used for the treatment of all injured employees, a person or persons shall be adequately trained to render first aid. Adequate first aid supplies shall be readily available.
- Types of injuries; and
- Capabilities of Local Emergency Response. Some examples may be:
 - Hazardous Materials
 - Confined Space
 - High Angle
 - Engulfment
 - Entrapment
 - Responder safety
 - What PPE will be required
 - Obtain air monitoring samples
 - Assess hazards
 - Characteristics of space
 - Type of Rescue
 - Offensive (rescue)
 - Defensive (recovery)

21.3.4.5 Victim Safety

Consider potential conditions of a victim, such as:

- Is the victim conscious?
- Is the victim unconscious?
- Will medical attention be required?
- Will medical personnel need to be notified?
- What type of rescue equipment will be required to safely remove the victim?
- Is there a timeline associated with the rescue because of the condition of the victim?

21.3.4.6 General Public Control and Safety

The general public around an area where an accident occurs may present additional hazards to the well-being of the injured and workers. Consider all of the following additional factors to manage the impacts of an event.

- Perimeter Control:
 - Police
 - Barrier tape, ropes, barricades
 - Controlling traffic
 - Limit access to the rescue area to assigned personnel
- Rapid Intervention Team
 - o Provides safety backup
 - o Dressed in same PPE as entry, ready to go
 - o Cannot be assigned to another task during the rescue
- Post Rescue
- Debrief
- Re-supply
- Documentation
- Post incident analysis

21.3.4.7 Site Specific Rescue Plan Development

The site-specific rescue plan shall be formatted with further explanation by each of the following sections:

Purpose

Goal

Roles and Responsibilities Policy

Rescue Types

e.g., Confined Spaces



Roles and Responsibilities

Survival Time Projections / Characteristics

- ✦ Type
- ✦ Function
- ✦ Configuration
- ✦ Construction
- ✦ Size
- ✦ Entry Points (size, number, location)

Appropriate equipment, Apparatus, Material

Communication

Means and Methods

Equipment

- ✦ Slings
- ✦ Rescue Basket
- ✦ Ropes
- ✦ Victim Stabilizers
- ✦ Winches

Multi-Party Coordination

Response Plan

Rescue Team Mobilization

Establish Air Supply for Rescuer and Victim

Ventilation of Space

Air Monitoring of Space

Establish Air Supply for Rescuer and Victim

Control of all sources of energy and engulfment hazards - Including
LOTO, Blocking, etc.

e.g. Fall Events

Roles and Responsibilities

Survival Time Projections

Characteristics

Appropriate equipment, Apparatus, Material

Communication

Means and Methods

Equipment

- ✦ Slings
- ✦ Rescue Basket
- ✦ Ropes



- ✦ Victim Stabilizers
- ✦ Winches

Response Plan

Rescue Team Mobilization

Rigging

Control of all sources of energy and engulfment hazards - Including LOTO,
Blocking, etc. Training

Required Training

Training Frequency

Trained Personnel Needs (numbers, experience, training)



Section 22 - FIRST AID

22.1 Purpose

Per OSHA's 29 CFR Part 1910.151(b) – In the absence of an infirmary, clinic, or hospital in near proximity to the workplace which is used for the treatment of all injured employees, a person or persons shall be adequately trained to render first aid. Adequate first aid supplies shall be readily available.

22.2 Goal

The goal of this program is to provide first aid to an injured worker as soon as possible after an injury has occurred (and prior to professional medical assistance) in order to minimize the impact of the event.

22.3 Policy

RALIN requires at least one person onsite from RALIN to be trained currently in CPR and 1st Aid (endorsed by the American Red Cross or American Heart Association). The requirement is managed by RALIN safety representative.

First aid must be available (per OSHA 29 CFR Part 1910.151(c)) where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

Every RALIN project must have at least one OSHA approved [First Aid Kit](#). First aid kits must be inspected weekly and documented on a weekly inspection sheet (RALIN Form RSF-0020). First aid kits shall consist of appropriate items determined to be adequate for the environment in which they will be used

Proper equipment for prompt transportation of the injured person to a physician or hospital or a communication system for contacting necessary ambulance service shall be provided. Nearby medical facilities and 911 services are authorized to fulfill this requirement.



Section 23 - BLOODBORNE PATHOGEN

23.1 Purpose

The purpose of this section is to clarify RALIN's obligations toward OSHA's bloodborne pathogen standard. Per OSHA's 29 CFR Part 1910.1030(b), a bloodborne pathogens are pathogenic micro-organisms that are present in human blood and can cause disease in humans.

23.2 Goal

The goal of this program is to mitigate potential exposures to bloodborne pathogens for all employees.

23.3 Policy

An occupational exposure is defined as "reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties". In addition, "contaminated" is defined as "the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface".

RALIN does not reasonably anticipate occupational exposure to contaminants from the performance of any employee's duties therefore no written exposure control plan is required. As a result, employees will not need access to an exposure control plan. If an exposure control plan is created, then employees will have access to a copy of the exposure control plan.

In addition, a 1993 standard interpretation specifies that in addressing the OSHA Advisory Committee of Construction Safety and Health on May 19, Dorothy L. Strunk, Acting Assistant Secretary, informed the committee that a policy decision had been made that the **bloodborne pathogens standard does not apply to the construction industry**.

This same letter mentions, "[29 CFR 1926.21(b)(2)] requires that the employer instruct each employee in the recognition and avoidance of unsafe conditions and in the regulations applicable to his or her work environment in order to control or eliminate any hazards or other exposure to illness or injury. Under this provision, the employer is required to train designated first aid providers in the hazards of bloodborne pathogens."

RALIN's first aid trained personnel are all trained regarding bloodborne pathogens. This training will be provided at the time of initial assignment and training maintained as "current" or within 1 year if the client requires training to be above and beyond professionally recognized institutions or OSHA requirements. Training records will be maintained for 3 years from the date of training. A link to this interpretation:

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=20998

Any exposures to bloodborne pathogens (during an event of injury, etc.) within a RALIN site will treat all body fluids as potentially infectious and universal precautions will be observed.

When the possibility of occupational exposure is present, PPE will be provided at no cost to the employees such as gloves, gowns, etc. PPE shall be used unless employees temporarily declined to use under rare circumstances. PPE shall be repaired and replaced as needed to maintain its effectiveness.

All equipment or environmental surfaces shall be cleaned & decontaminated after contact with blood or other infectious materials.



Hand washing facilities will be readily available at all work locations or if hand washing facilities are not feasible, then an appropriate antiseptic hand cleanser in conjunction with cloth/paper towels or antiseptic towelettes will be provided by the RALIN.

Accurate medical records for each employee with occupational exposure will be maintained for at least the duration of employment plus 30 years.

Hepatitis B Vaccine be made available to all employees with occupational exposure at no cost



Section 24 - PERSONAL PROTECTIVE EQUIPMENT (PPE)

24.1 Purpose

Prior to all daily task(s) beginning, employees will determine through a job safety analysis (JSA) if hazards are present or are likely to be present, which necessitate the use of PPE.

24.2 Goal

The goal of this program is to ensure that employees utilize personal protective equipment as a final control to reduce risks of injury or illness when design, engineering controls and administrative controls do not eliminate a potential hazard.

24.3 Policy

24.3.1 Roles and Responsibility

RALIN (all employers) is responsible for requiring the use of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions or where necessary to reduce hazards to employees [1926.28(a)] & [1926.95(a) thru (c)]. Employee-owned equipment is not permitted.

Trades are responsible for enforcing the use of protective equipment worn by employees.

24.3.2 Training

All employees must be trained in the following as it pertains to personal protective equipment (PPE):

- Hazard assessments;
- Determining type of PPE required;
- Proper use;
- Proper maintenance; and
- Proper inspection.

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of PPE changes or when the employee demonstrates lack of use, improper use, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

24.3.3 Inspection and Maintenance

Prior to every shift and major task beginning, PPE will be inspected for serviceability. Defective or damaged PPE shall not be used and shall be removed from service (removed from the project or disposed of properly).

PPE shall be cleaned and maintained according to manufacturer's recommendations.



24.3.4 Use

A written job safety analysis (JSA) will be performed to determine potential hazards/ exposures and designate appropriate PPE. A sign/ approved copy must be filed on site.

Protective equipment, 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 reliable 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 or physical contact.

Employees will properly fit PPE to the specific individual user. Fitting includes proper donning, doffing, cleaning, and maintenance.

Reflective vests must always be worn where work is adjacent to traffic or equipment/vehicle operations.

Gloves must be used whenever handling materials that may produce lacerations, abrasions, punctures, burns, or chemical contact. The appropriate gloves must be used for the type hazard to which the employee is exposed.

Hearing protection is required where noise is such that a normal conversation cannot be carried out without shouting at a two-foot distance.

Employees working over or near water, or where the danger of drowning exists, shall be provided with U.S. Coast Guard-approved life jackets or buoyant work vests. [1926.106(a)]

24.3.4.1 Clothing

- All clothing shall be maintained in good shape and worn correctly.
- No clothing with excessive holes shall be worn at work.
- No clothing shall be excessively loose—no “hanging” clothes, no “baggy” pants, etc.

24.3.4.2 Eye and Face Protection

- Eye and face protection must be worn when machines or operations present potential eye or face injury. [1926.102(a)(1)]
- Safety goggles or face shields shall be issued to employees who are engaged in chipping, grinding, or performing any operations where they are exposed to eye hazards. Eye Protection must meet ANSI Z87 requirements and be so marked.
- Employees involved in welding operations must wear filter lenses or plates of the proper shade number. [1926.102(b)(1)]
- Employees exposed to laser beams shall be furnished suitable laser safety goggles, which will protect for the specific wavelength of the laser and be optical density (O.D.) adequate for the energy involved. [1926.102(b)(2)]
- Eye and face protective equipment shall meet all requirements of ANSI Z 87.1-1968, “Practice of Occupational and Educational Eye and Face Protection”. [1926.102(a)(2)]
- Goggles will be worn over any employee-owned prescription glasses that do not meet industrial safety standards. [1926.102(a)(3)]



24.3.4.3 Foot Protection

- All employees are required to wear closed toe work shoes appropriate for the scope of work for that employee (e.g. electricians, roofers, steel worker, etc.).
- Employees shall wear shoes or boots that give ankle support and that have a hard sole on the jobsite.
- No sneakers, tennis shoes or open toed shoes are permitted on the jobsite.
- Additional toe protection shall be used when required.

24.3.4.4 Hard Hats

- Hard hats will be worn from start to finish of the job.
- Hard hats will be worn 100% of the time on the jobsite. Hard hats shall be worn correctly.
- Hard hats will be worn 100% of the time when off equipment and/or out of vehicles.
- Employees working in areas where there is a possible danger of head injury from impact, from falling or flying objects, or from electrical shock or burns, shall be protected by protective helmets. [1926.100]

24.3.4.5 Hearing Protection

- When engineering or administrative controls fail to reduce sound levels within the limits of Table D-2, ear protective devices shall be provided and used. [1926.52(b) & 1926.101(a)]
- Plain cotton is not an acceptable protective device. [1926.101(c)]
- In all cases where sound levels exceed the values shown in Table D-2 of the Safety and Health Standards, a continuing, effective hearing conservation program shall be administered. [1926.52(d)(1)]

Table D-2 Permissible Noise Exposures

Duration Per Day, Hours	Sound Level DBA Slow Response
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ or less	115



Section 25 - FALL PROTECTION PROGRAM

25.1 Purpose

This program is designed to provide guidance for all RALIN jobsites for establishing procedures to identify, evaluate, and always control falls from elevations. This program focuses on orientation, training, and enforcement to ensure fall protection guidelines are implemented and adhered to by all employees.

The management of RALIN has adopted a Fall Protection Program to eliminate fall events. All levels of management and supervision will be responsible and accountable for ensuring the success of the program by integrating this program into the way of doing business on RALIN sites.

Prior to all major task(s) beginning, employees will determine through a job safety analysis (JSA) what fall hazards are present or are likely to be present, which necessitate the use of fall protection.

25.2 Goal

The goal of this program is to eliminate all falls from elevations by identifying and managing all existing and potential fall exposures.

25.3 Policy

25.3.1 Roles and Responsibility

All levels of management and supervision are responsible for supporting and enforcing this program to ensure 100% compliance by all personnel. Management, estimating, scheduling, and project management personnel are responsible for pre-planning safety into the job by identifying and predicting potential fall exposures both during the preconstruction phase and during construction. Each discipline shall plan safety into the job with priorities placed on engineering solutions to the hazards. Each discipline is responsible for working with architects, consultants, and company safety professionals to design a safe workplace for all employees.

Personal fall protection systems shall only be used as a backup method to primary fall protection systems, such as guardrails, or when there is no other feasible or practical means for safely accomplishing the work.

All levels of management and supervision shall be accountable for the safety of jobsite personnel. Jobsite supervision is directly responsible for using this Fall Protection Program to control falls from elevations. Management teams shall have the goal of zero fall-related events for each jobsite. Measurement of performance will consider actual results related to this goal. Management, estimating, and scheduling personnel shall be accountable for pre-planning, designing, budgeting, and scheduling fall protection into each jobsite.

Trades are responsible for enforcing the use of fall systems, fall protection equipment or PFA(s) by employees.

25.3.2 Pre-Construction Planning

Pre-planning must begin during the pre-bid phase of each jobsite and continue.

25.3.2.1 Pre-Bid Phase:

- ✦ Management: Management shall review plans for jobsites during the pre-bid phase to determine the nature and scope of fall protection needs, as well as any necessary design changes and/or engineering controls needed.



- ✦ Estimating: Estimating personnel must include the cost for fall protection into the bid/proposal. Input from management should be utilized as necessary. The cost of subcontract bids should include the cost of implementing an acceptable Fall Protection Program.
- ✦ Contract Administration: The subcontract must include language requiring a Fall Protection Program.

25.3.2.2 Pre-Startup:

- ✦ Jobsite Management: The jobsite management team shall hold a review meeting prior to startup of any work on a jobsite. The purpose of the meeting shall be to review plans and to identify and evaluate all potential fall exposures in each phase of construction. The jobsite management team shall meet regularly to review the Fall Protection Plan and update as needed.
- ✦ Scheduling: Design changes, engineering controls, and installation of fall protection devices, i.e. anchorages, guardrails, static lines, etc., must be incorporated into the schedule to ensure completion in a timely manner.

🚧 **NOTE:** Existing or potential hazards must be eliminated by engineering controls and/or design changes whenever feasible.

25.3.3 Job Safety Analysis (JSA)

Supervisors must analyze all elevated tasks prior to assigning work to determine all existing and potential fall protection needs and to ensure adequate fall protection systems are provided by completing a JSA.

25.3.4 Training

All employees must be trained in the following as it pertains to fall systems, fall protection equipment or PFA:

- Assessments of hazards;
- Determining type of fall systems, fall protection equipment or PFA required;
- Proper use;
- Proper maintenance; and
- Proper inspection

Pre-task safety instruction must be given to each person assigned to work in elevated areas prior to commencing work activities. New hire safety orientation training must be conducted for all new hires in the beginning of employment. The orientation shall include the company's Fall Protection Program policy, procedures, and work rules. Fall Protection must be included in these meetings on a regular basis or when an upcoming work assignment may involve unusual or nonroutine fall exposures. Written documentation of all employees training shall be kept on file.

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of fall systems, fall protection equipment or PFA changes or when the employee demonstrates lack of use, deficiencies in training, improper use, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.



25.3.5 Fall Protection Plan(s)

Employers engaged in leading edge work, precast concrete construction work and residential construction work who can demonstrate that it is infeasible or creates a greater hazard to use conventional fall protection systems must develop and follow a fall protection plan.

Reference: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10927

Fall protection plans shall be prepared by a qualified person for the specified work site. OSHA's definition of a Qualified Person: "One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project."

25.3.6 Rescue Plan/ Self-Rescue Program

In the event of a fall, prompt rescue(s) must take place in order to prevent further injury to workers.

Employers performing work where fall protection is required, and employees may be exposed to falls where a fall's final stopping point leaves an employee at heights or in areas that are difficult to reach. If conventional rescue equipment (e.g. ladders, aerial lifts, mobile scaffolds, scissor lifts, etc. that are already on a jobsite) is unavailable, then employers must develop and inform employees of a "rescue plan" or "self-rescue program" specific to the project or jobsite.

Equipment and training must be procured to allow for a rescue of exposed employees or to allow an employee to self-rescue if the employee is in a condition to self-rescue.

Employers with employees working in an environment that requires rescue plans or a self-rescue program must perform training drills to ensure employees are proficient in the planned rescue(s) at least annually. Training shall be documented as mentioned above in the "Training" section.

Reference: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=9803&p_table=STANDARDS

25.3.7 Trade Fall Protection Program and Training

Prior to a trade mobilizing on a jobsite, if the trade will be engaged in leading edge work, precast concrete erection work, or residential construction work (See 1926.501(b)(2), (b)(12), and (b)(13)) who can demonstrate that it is infeasible or it creates a greater hazard to use conventional fall protection equipment shall submit a jobsite specific Fall Protection Program which addresses identifying, evaluating, and protecting employees from elevated falls per the applicable regulatory agency's standards (e.g. OSHA (1926.502(k), MSHA).

Trade shall demonstrate in writing that all of trade's employees have been adequately trained in fall protection.

If trade does not provide an adequate fall protection plan prior to mobilization, trade must comply with the RALIN Fall Protection Program at trade's own expense.

Trade's compliance with RALIN Fall Protection Program must include provisions for enforcement in each trade's subcontract agreement.

25.3.8 Inspection and Maintenance

Prior to every shift and major task beginning, fall protection devices such as lifelines, safety harnesses/lanyards, etc., will be inspected as required by the manufacturer's safety procedures for damage or deterioration. Defective



equipment shall be removed from service and repaired or destroyed. Fall protection devices subjected to shock loading imposed during fall arrest shall be removed from service.

25.3.9 Use

Fall protection equipment, shall be provided, used, and maintained in a sanitary and reliable condition. Employee owned equipment is not permitted. All PFA (personal fall arrest) retractable shall be ANSI A10 and ANSI 359 compliant.

All employees with potential fall exposures, per the applicable regulatory agency's standards (e.g. OSHA, MSHA) will be required to have fall protection in place and in use.

Fall protection systems shall include, but are not limited to the following areas:

- Guardrail Systems;
- Building construction activities;
- Demolition activities;
- Formwork;
- Reinforcing steel deliveries;
- Rigging, erection;
- Concrete placement;
- Structural / miscellaneous steel erection;
- Precast concrete erection;
- Scaffolding / Hoisting activities;
- Scaffolds, aerial lifts and ladders;
- Crane erection / dismantling;
- Hoisting areas including platforms, docks, chutes;
- Floor / Wall penetrations and exposures;
- Elevator shafts;
- Stairways;
- MEP shafts; and
- Perimeter edges

All exterior skin installation including, but not limited to, roofing, stone, masonry, waterproofing, and glazing

Fall protection options shall include, but are not limited to, the following:

- Guardrail Systems;
- Safety nets;
- Full body harnesses;



- Retractable lifelines and lanyards;
- Vertical and horizontal lifelines;
- Built-in hook points; and
- Written plans for fall protection

Personnel working on traveling powered work platforms or personnel lifting / hoisting devices shall also properly secure their safety lanyards.

All personal fall protection equipment must meet minimum requirements per the applicable regulatory agency's standards (e.g. ANSI, ASTM, OSHA, MSHA).

All contractors and trades shall be responsible for supplying their own fall protection systems and/or equipment.

Where employees are exposed to falling six (6) feet or more from an unprotected side or edge, a protection system must be selected and used, such as a guardrail system, safety net system, or a personal fall arrest system.

[1926.501(b)(1)]

A personal fall arrest system consists of an anchorage, connectors, a body harness, and may include a lanyard, a deceleration device, lifeline, or a suitable combination of these. [1926.500 (b)] & [1926.502(d)]

Each employee in a hoist area shall be protected from falling six (6) feet or more by guardrail systems or personal fall arrest systems. If guardrail systems (or chain gate or guardrail) or portions thereof must be removed to facilitate hoisting operations, as during the landing of materials, and a worker must lean through the access opening or out over the edge of the access opening to receive or guide equipment and materials, that employee must be protected by a personal fall arrest system. [1926.501(b)(3)]

Personal fall arrest systems, covers, or guardrail systems must be erected around holes (including skylights) that are more than six (6) feet above lower levels. [1926.501(b)(4)]

Each employee at the edge of an excavation six (6) feet deep or more shall be protected from falling by guardrail systems, fences, barricades, or covers. Where walkways are provided to permit employees to cross over excavations, guardrails are required on the walkway if it is six (6) feet or more above the excavation. [1926.501(b)(7)]

Each employee using ramps, runways, and other walkways shall be protected from falling six (6) feet or more by guardrail systems. [1926.501(b)(6)]

Each employee performing overhand bricklaying and related work six (6) feet or more above lower levels shall be protected by guardrail systems, safety net systems, or personal fall arrest systems, or shall work in a controlled access zone. All employees reaching more than ten (10) inches below the level of a walking/working surface on which they are working shall be protected by a guardrail system, safety net system, or personal fall arrest. [1926.501(b)(9)]

Each employee engaged in roofing activities on low-slope roofs with unprotected sides and edges shall be protected from falling by guardrail, safety net, or personal fall arrest systems or a combination of a

- Warning line system and guardrail system.
- Warning line system and safety net system.
- Warning line system and personal fall arrest system



A Safety Monitoring System or any combination with it will not be allowed on RALIN projects as a fall protection system.

Each employee on a steep roof with unprotected sides and edges six (6) feet or more above lower levels shall be protected by guardrail systems with toe-boards, safety net systems, or personal fall arrest systems. [1926.501(b)(11)]

Lifelines, safety belts, and lanyards shall be used only for employee safeguarding. They are never to be used for slings, towing, etc. [1926.104(a)]

Holes and Column Isolator Protection Policy:

Any hole in the slab must be protected by a cover. The cover must be labeled hole and marked with high visibility paint, also the cover shall support or be able to stop any lift that is on the surface. *Hole* means a gap or void 2 inches (5.1 cm) or more in its least dimension, in a floor, roof, or other walking/working surface. Each employee on a walking/working surface shall be protected from tripping in or stepping into or through holes by covers. Any depression in the slab must be identifiable for the workers to be aware of the change in slab elevation. This provision does not specify a minimum depth for the requirement to apply.

Column Isolator Protection must have a curb system in place to keep any mobile scaffolding from being able to fall into the column's hole. The curb should be built to keep the type of scaffold or lifts from tipping into the column hole. The curb must be painted with high visibility paint for identification purpose.

25.4 Wood Truss Installation

25.4.1 Exception

While installing or rolling wood trusses a competent spotter can be used in place of other fall protection means. This spotter will have on an orange hardhat will ensure that all employees working in the installation of wood trusses remain 6' back from the leading edge. This wood truss installation exception only pertains to leading edge and not the sides. Regular fall protection such as a PFAS, guardrails, or safety net must be used or in place for any work being done on the sides as well as when all trusses are in place. Any work after trusses are in place (bracing, insulation, etc.) will also require normal or regular fall protection.

Per OSHA in 1926 Subpart M Appendix E II

Where conventional fall protection is infeasible or creates a greater hazard at the leading edge and during initial truss connecting activity, it is permitted to allow a safety monitoring system for the minimum number of employees and time necessary to complete the task. The maximum number of workers to be monitored by one safety monitor is six (6).

25.4.2 Safety Monitoring System

A safety monitoring system means a fall protection system in which a competent person is responsible for recognizing and warning employees of fall hazards. The duties of the safety monitor are to:

- Warn by voice when approaching the open edge in an unsafe manner.
- Warn by voice if there is a dangerous situation developing which cannot be seen by another person involved with product placement, such as a member getting out of control.
- Make the designated erectors aware they are in a dangerous area.



- Be competent in recognizing fall hazards.
- Warn employees when they appear to be unaware of a fall hazard or are acting in an unsafe manner.
- Be on the same walking/working surface as the monitored employees and within visual sighting distance of the monitored employees.
- Be close enough to communicate orally with the employees.
- Not allow other responsibilities to encumber monitoring. If the safety monitor becomes too encumbered with other responsibilities, the monitor shall (1) stop the erection process; and (2) turn over other responsibilities to a designated erector; or (3) turn over the safety monitoring function to another designated, competent person. The safety monitoring system shall not be used when the wind is strong enough to cause loads with large surface areas to swing out of radius, or result in loss of control of the load, or when weather conditions cause the walking-working surfaces to become icy or slippery.

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926SubpartMAppE>



Section 26 - AERIAL LIFTS

26.1 Purpose

This program is designed to provide guidance for all RALIN jobsites to establish safe use of aerial lifts.

26.2 Goal

The goal of this program is to ensure that all personnel utilize aerial lifts in the safest manner possible.

26.3 Policy

26.3.1 Roles and Responsibility

RALIN (all employers) is responsible for ensuring that aerial lifts are used in a safe manner.

Trades are responsible for enforcing the safe use of equipment by employees.

26.3.2 Training

All employees must be trained in the all proper inspection, safety features (e.g. fall protection, etc.) and proper use of an aerial lift in accordance with manufacturer's recommendations and regulatory requirements (OSHA, MSHA, etc.).

Employees shall have adequate training and proper authorization prior to operating any aerial lift. [1926.453(b)(2)(ii)]. Documentation that certifies the training must be available for review within 15 minutes.

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of equipment changes or when the employee demonstrates lack of use, improper use, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

26.3.3 Inspection and Maintenance

Prior to every shift aerial lifts will be inspected for serviceability. Defective or damaged equipment shall not be used and shall be removed from service (removed from the project or disposed of properly).

Aerial lifts shall be cleaned and maintained according to manufacturer's recommendations.

26.3.4 Use

All modifications to any aerial lift must have written approval from the manufacturer. [1926.453(a)(2)]

Lift controls shall be tested and inspected each day prior to use to determine that such controls are in safe working condition. Tests and inspections 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.

Boom and basket load limits specified by the manufacturer shall not be exceeded.



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. [1926.453(b)(2)(iv)]

An approved safety harness (fall restraint system) shall be worn and a lanyard attached to the boom or basket when working from an aerial lift. [1926.453(b)(2)(v)]

Fall restraint systems must be attached to the boom or basket in accordance with manufacturer's recommendations.

Never remove the guardrail while the aerial lift is in use. Always use the safety chain at aerial lift gate.

Always alert other employees on the aerial lift prior to changing the height or the position of the aerial lift.

The ground where boom lifts are used must be firm, level, and free of obstructions that could cause the lift to overturn.

Workers may only use aerial lifts to reach elevated work areas when the manufacturer allows for such use and the manufacturer's procedure is followed.

Equipment will have a working back-up alarm or use a spotter when operating in reverse.

Minimum clearance between electrical lines and any part of the equipment is at least 10 feet.

The operator's manual must always be with the equipment.



Section 27 - CONFINED SPACE PROGRAM

27.1 Purpose

The Confined Space Program is provided to protect authorized employees that will enter confined spaces and may be exposed to hazardous atmospheres, engulfment in materials, conditions which may trap or asphyxiate due to converging or sloping walls or contains any other safety or health hazards. Reference: Confined Spaces in Construction (29 CFR 1926 Subpart AA).

Where employees may enter permit confined spaces, this program must be made available prior to and during entry operations to employees or their representatives.

**NO ENTRY INTO A CONFINED SPACE WILL BE PERFORMED WITHOUT THE KNOWLEDGE OF THE
ONSITE RALIN SUPERINTENDENT.**

**ENTRY INTO A CONFINED SPACE (PERMIT OR NON-PERMIT) WITHOUT THE SUPERINTENDENT'S OR THE RALIN
CORPORATE SAFETY MANAGER'S APPROVAL WILL RESULT IN THE REMOVAL OF THE ENTIRE TRADE'S SITE CREW
FOR 48 HOURS FROM THE RECOGNIZED VIOLATION.**

The following forms will be currently documented and available at the specific location during entry into a **permit required confined space**:

1. RALIN Confined Space Permit
2. Entry Certification of Confined Space
3. Confined Space Evaluation (specific to the location being entered)
4. This plan (RALIN Confined Space Plan)

27.2 Goal

The goal of this program is to ensure that all risks associated with working around or in confined spaces are eliminated or minimized through safe work practices in accordance with regulator guidance and regular training.

27.3 Policy

27.3.1 Definitions

These Confined Space Entry Requirements are provided to protect authorized employees who will enter confined spaces and may be exposed to hazardous atmospheres or conditions.

27.3.1.1 Confined Space:

- ✦ Is large enough or so configured that an employee can bodily enter and perform work.
- ✦ Has limited or restricted means for entry or exit (tanks, pipes, manholes, vaults, trenches and pits are spaces that may have limited means of entry).
- ✦ Is not designed for continuous employee occupancy.



27.3.1.2 Permit Required Confined Space (PRCS):

Permit required confined space (permit space), is 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 covering walls or by a floor, which slopes downward and tapers to a smaller cross-section.
- ✦ Contains any other recognized serious safety or health hazard.

Each Permit-Required Confined Space will be marked "Confined Space - Entry Permit Required"

All employees required to enter confined or enclosed spaces must be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of required protective and emergency equipment. The employer shall comply with any specific regulations that apply to work in dangerous or potentially dangerous areas. Confined or enclosed spaces include, but are not limited to, storage tanks, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, and open top spaces more than four (4) feet deep such as pits, tubs, vaults, and vessels. [1926.21(b)(6)(i) and (ii)]

27.3.1.3 Hazardous Atmosphere:

A hazardous atmosphere is one that contains:

1. Flammable gas, vapor, or mist in excess of 10% of its LFL.
2. Combustible dust exceeding LFL (lower flammable limit).
3. Oxygen concentration <19.5% or >23.5%.
4. Atmospheric concentration above the OSHA PEL (permissible exposure limit).
5. Any other atmospheric condition that is IDLH (immediately dangerous to life and health).

27.3.2 Roles and Responsibility

The following section outlines responsibilities for management, controlling contractors, entry and host employers, entrants, entry supervisors and attendants. These policies are intended for RALIN employees working within and around confined spaces.

Trades performing work on RALIN projects will provide all necessary training, monitoring, gear and rescue services for all work they are to perform within confined spaces on RALIN projects.

27.3.2.1 Management

- ✦ Ensure confined space assessments have been conducted, disseminated to and available for review by all project personnel (RALIN and sub-contracted management)
- ✦ Ensure all permit required confined spaces are posted
- ✦ Annually review blank template for permits annually



- ✦ Annually review this program and all Entry Permits
- ✦ Ensure proper training for entry and rescue teams for RALIN employed entry crews (this does not include trades performing scopes of work involving confined spaces)
- ✦ Evaluate Rescue Teams/Service to ensure they are adequately trained and prepared for RALIN employed entry crews (this does not include trades performing scopes of work involving confined spaces)
- ✦ Ensure a rescue team is available for response during entry into spaces with IDLH atmospheres for RALIN employed entry crews (this does not include trades performing scopes of work involving confined spaces)
- ✦ Provide proper equipment for entry and rescue teams for RALIN employees

27.3.2.2 Controlling Contractor

Before entry, obtain host employer information about hazards and previous entry operations. Provide that information to each entity entering a permit space or any other entity at the site whose activities might result in a hazard in the space. After entry must debrief each entity that entered a permit space regarding hazards confronted or created.

27.3.2.3 Host Employer

Before entry, the host employer must provide (if it has it) to the controlling contractor:

- Location of each known permit space
- The hazards or potential hazards in each space or the reason it is a permit space.
- Any precautions that the host employer of any previous controlling contractor or entry employer implemented for the protection of employees in the permit space.

27.3.2.4 Entry Employer

The entry employer is the employer whom has employees entering a confined space.

Before entry, obtain information about confined spaces from controlling contractor and inform the controlling contractor of the permit procedures to be followed, including any hazards likely to be confronted or created. After entry, inform the controlling contractor of the procedures followed and hazards confronted or created.

Identify and evaluate the hazards of permit spaces.

Isolate the permit space and hazards in the space.

Control atmospheric hazards.

Specify acceptable entry conditions.

Ensure confined space assessments and evaluations have been conducted.

Ensure all permit required confined spaces are posted and employees informed.

Implement measures to prevent unauthorized entry.

Develop and implement procedures and practices for safe permit entry.

Designate authorized entrants, attendants, and entry supervisors, persons who test/monitor and provide training.

Provide employees at no cost, proper testing and monitoring, ventilating, communications, and lighting equipment.



Provide employees at no cost, barriers/shields, equipment for safe ingress/egress, rescue equipment and PPE.
Develop and implement procedures for summoning rescue, emergency services, and rescue teams/service.

27.3.2.5 Employees

- ✦ Follow program requirements
- ✦ Report any previously unidentified hazards associated with confined spaces

27.3.2.6 Entry Supervisor

Entry supervisors are responsible for the overall permit space entry and must coordinate all entry procedures, tests, permits, equipment and other relevant activities. The project supervisor will serve as the entry supervisor unless those duties are assigned by him/her to another qualified individual.

The following entry supervisor duties are required:

- ✦ Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure
- ✦ Verifies, by checking that the appropriate entries have been made on the permit, all test 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 when the entry is complete and there is a need for terminating the permit
- ✦ Verify that rescue services are available and that the means for summoning them are operable
- ✦ Remove unauthorized persons who enter or attempt to enter the space during entry operations
- ✦ Determine whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space that entry operations remain consistent with the permit terms and that acceptable entry conditions are maintained.

27.3.2.7 Entry Attendants

At least one attendant is required outside the permit space into which entry is authorized for the duration of the entry operation. Responsibilities include:

- ✦ Not monitoring more than one confined space by each single attendant.
- ✦ To be within voice and/or radio contact with all workers inside the confined space AT ALL TIMES. The safety attendant should not leave his position for any reason.
- ✦ To perform no other duties other than to monitor the workers inside the confined space.
- ✦ To have a fire extinguisher on hand at all times.
- ✦ To be highly distinguishable from the other workers.



- ✦ To know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure
- ✦ To be aware of possible behavioral effects of hazard exposure on entrants
- ✦ To continuously maintain an accurate count of entrants in the permit space and ensure a means to accurately identify authorized entrants
- ✦ To remain outside the permit space during entry operations until relieved by another attendant (once properly relieved, they may participate in other permit space activities, including rescue if they are properly trained and equipped).
- ✦ To communicate with entrants as necessary to monitor entrant status and alert entrants of the need to evacuate.
- ✦ To monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the entrants to immediately evacuate if: the attendant detects a prohibited condition, detects entrant behavioral effects of hazard exposure, detects a situation outside the space that could endanger the entrants; or if the attendant cannot effectively and safely perform all the attendant duties.
- ✦ To perform non-entry rescues as specified by that rescue procedure and entry supervisor
- ✦ The safety attendant should be trained in the jobsite emergency plans for fire and injured person, as well as have radio contact with the jobsite 911 contact person for an emergency.
- ✦ To summon rescue and other emergency services as soon as the attendant determines the entrants need assistance to escape the permit space hazards.
- ✦ To take the following action when unauthorized persons approach or enter a permit space while entry is under way:
 - Warn the unauthorized persons that they must stay away from the permit space,
 - Advise unauthorized persons that they must exit immediately if they have entered the space, and
 - Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.

27.3.2.8 Entrants

All entrants must be authorized by the entry supervisor to enter permit spaces, have received the required training, used the proper equipment, and observe the entry procedures and permit. The following entrant duties are required:

- ✦ Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- ✦ Properly use the equipment required for safe entry;
- ✦ Communicate with the attendant as necessary to enable the attendant to monitor the status of the entrants and to enable the attendant to alert the entrants of the need to evacuate the space if necessary;
- ✦ Alert the attendant whenever; the entrant recognizes any warning signs or symptoms of exposure to a dangerous situation, or any prohibited condition is detected; and

- ✦ Exit the permit space as quickly as possible whenever; the attendant or entry supervisor gives an order to evacuate the permit space, the entrant recognized any warning signs or symptoms of exposure to a dangerous situation, the entrant detects a prohibited condition, or an evacuation alarm activated.

27.3.2.9 Hazards

- ✦ Explosive / Flammable atmospheres
- ✦ Toxic atmospheres
- ✦ Engulfment
- ✦ Asphyxiation
- ✦ Entrapment
- ✦ Slips & falls
- ✦ Chemical exposure
- ✦ Electric shock
- ✦ Thermal / chemical burns
- ✦ Noise & Vibration

27.3.2.10 Hazard Control

Engineering controls

- ✦ Locked entry points
- ✦ Temporary ventilation
- ✦ Temporary lighting

Administrative controls

- ✦ Signs
- ✦ Employee training
- ✦ Entry procedures
- ✦ Atmospheric monitoring
- ✦ Rescue procedures
- ✦ Use of prescribed PPE

27.3.3 Training

Training for confined space entry must be provided at no cost to employee and in a language and vocabulary the employee understands.



Training must be provided before first duties are assigned or change in duties or change in operations or when evidence of deviation from procedures or inadequacies in knowledge.

The training must establish proficiency in the duties required and must introduce new or revised procedures.

Training documentation must include:

- Employee's name
- Name of trainer(s)
- Dates of training

Documentation must be made available to employees or their representatives for the period of time the employee works for the employer.

Training for Confined Space Entry includes:

1. Duties of Entry Supervisor, Entrant and Attendants
2. Confined Space Entry permits
3. Hazards of Confined Spaces
4. Use of Air Monitoring Equipment
5. First Aid and CPR Training
6. Emergency Action & Rescue Procedures
7. Confined Space Entry & Rescue Equipment
8. Rescue training, including entry and removal from representative spaces

27.3.4 General

27.3.4.1 Identification

Before work begins at the jobsite, a competent person must identify all confined spaces in which their employees may work.

The competent person must then identify each permit confined space through evaluation and testing. This will be done through performing a Confined Space Evaluation.

27.3.4.2 Signage

Each permit-required confined space will be marked "DANGER – PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER".

27.3.4.3 Inform

In addition to posting signage, employees must be informed of the location and danger of each permit confined space. This may be accomplished through new hire orientations, safety meetings, and JSAs.

Where employees are not authorized to enter confined spaces, they must be effectively barricaded/locked to prevent entry.



27.3.4.4 Alternative Procedures

Permits, attendants, entry supervisors and rescue plans are not required under the following conditions:

1. Physical hazards are eliminated or isolated so that the only hazard is actual or potential hazardous atmospheres.
2. Able to demonstrate that continuous forced air ventilation alone is sufficient to maintain safety and if ventilation stops working entrants can exit the space safely.
3. Monitoring and inspection data that supports the use of alternative procedures is developed and maintained. Data must be available to each employee who enters the permit space or their representative.
4. The following forms will be currently documented and available on the project site office during entry into a non-permit required confined space:
 - a. Entry Certification of Confined Space
 - b. Confined Space Evaluation (specific to the location being entered)
 - c. The site-specific RALIN Confined Space Plan

Where entry into the space is required to develop inspection data or monitoring, entry must be done in compliance with permit confined space procedures.

27.3.4.5 Atmospheric Monitoring

- Before an employee enters the space, the internal atmosphere must be tested with a calibrated direct reading instrument in the following order: 1) Oxygen, 2) Flammable gases/vapors and 3) Potential air contaminants.
- Oxygen levels in a confined space must be between 19.5 and 23.5 percent.
- LFL (lower flammable limits) must be below 10%.
- Contaminants must be below the PEL.
- Must provide employees or their representatives an opportunity to observe pre-entry testing.

27.3.4.6 Written Certification

The competent person must verify the space is safe for entry and that pre-entry measures have taken place.

The Written Certification Form must be completed and available to employees or their representatives.

27.3.4.7 Barricades/Fall Prevention

When the cover is removed, the opening must be immediately guarded by a railing, temporary cover or other barrier that will prevent an accidental fall through the opening and protect employees from foreign objects entering the space.

27.3.4.8 Ventilation

Continuous forced air ventilation must be used.

Employees must not enter space until ventilation has eliminated any hazardous atmosphere.

Ventilation must be directed to ventilate the immediate areas where an employee is or will be present and continue until all employees have left the space.

The air supply must be from a clean source and not increase hazards.



27.3.5 Entry Standard Operating Procedures

27.3.5.1 Rescue

27.3.5.1.1 Rescue Services

The employer must designate an entry rescue service whenever non-entry rescue is not selected.

When rescue and emergency services are designated, must evaluate their ability to respond in a timely manner, considering the hazards identified.

Inform each rescue team of hazards they may confront at the site.

Provide access to all permit spaces from which rescue may be necessary so that the rescue team can develop rescue plans and practice rescue operations.

Select a rescue team that:

- Has the capability to reach the victim within a time frame that is appropriate for the hazard(s);
- Is equipped for and proficient in, performing needed rescue services; and
- Agrees to notify in the event the rescue service becomes unavailable.

27.3.5.1.2 Non-Entry Rescue

Non-entry rescue is required unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. Whenever non-entry rescue is selected, must ensure retrieval systems are used and confirm prior to entry that emergency assistance would be available in the event non-entry fails.

A mechanical device must be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.

27.3.5.2 Reclassification

The following procedures are required for reclassification of non-permit or permit spaces.

27.3.5.2.1 Non-Permit Confined Spaces

A competent person must reevaluate the space and if necessary, reclassify as a permit space when:

- There are changes in use or configuration of a non-permit space that might increase hazards, or
- Indication the original evaluation may have been inadequate.

The basis for the reclassification must be documented and indicate that all hazards have been eliminated/isolated.

Written certification must include date, location of space and signature of person making the determination.

27.3.5.2.2 Permit Confined Spaces

A competent person may reclassify a permit space as a non-permit space when:

- The space poses no actual or potential atmosphere hazards (0% LFL/toxicity).
- All hazards are eliminated or isolated without entry into the space.

- The space may be reclassified as non-permit if non-atmospheric hazards remain eliminated/ isolated.

27.3.5.3 Entry Procedures 27.3.5.3.1

General Rules

- During all Confined Space Entries, the following Safety Rules must be strictly enforced:
- Rescue services will be on-site for immediately dangerous to life and health (IDLH) conditions while work is being performed.
- Only authorized and trained employees may enter a confined space or act as attendant.
- No Smoking is permitted in a confined space or near entrance/exit area.
- During permit confined space entries, an attendant must always be present.
- Constant visual or voice communication will be maintained between the attendant and employees entering a Confined Space.
- An early warning system must be established and operational for non-isolated engulfment hazards.
- No bottom or side entry will be made, or work conducted below the level any hanging material or material which could cause engulfment.
- If hazards are detected, employees must leave the space immediately. The competent person must then reevaluate the space to determine the source of the hazard(s) and necessary controls.
- A safe method of entering and exiting the space must be provided. To prevent injuries to others, a barricade will protect all openings to confined spaces when covers are removed.
- If a hoisting system is used, it must be designed specifically for hoisting personnel. A job made hoisting system is permissible if it is approved for personnel hoisting by a registered professional engineer, in writing, before use.
- Air and Oxygen Monitoring is required before entering any Permit-Required Confined Space. Oxygen levels in a Confined Space must be between 19.5 and 23.5 percent. Levels above or below will require the use of an SCBA or other approved air supplied respirator. Additional ventilation and Oxygen Level Monitoring is required when welding is performed. The monitoring will check Oxygen Levels, Explosive Gas Levels and Carbon Monoxide Levels. Entry will not be permitted if explosive gas is detected above one-half the Lower Explosive
- Limit (LEL).

27.3.5.3.2 Confined Space Entry Procedures

- ✦ Each employee who enters or is involved in the entry must:
 - Understand the procedures for confined Space entry
 - Know the hazards of the specific space
 - Review the specific procedures for each entry
 - Understand how to use entry and rescue equipment
- ✦ ALL employees must be properly trained.



- ✦ Ensure that external hazards including, but not limited to pedestrians and vehicles have controls in place to protect employees.
- ✦ Have adequate ventilation and lighting in place.
- ✦ Always check oxygen, explosive and toxic gases levels with certified testing equipment.
- ✦ Wear proper personal protective equipment necessary for task at hand.
- ✦ Have safety "attendant" in place at all times.
- ✦ Wear full body harness with lifeline attached when necessary for work that generates toxic fumes.
- ✦ Take frequent breaks and come up for fresh air.
- ✦ Never take cylinders or fuel into confined spaces.

27.3.5.4 Confined Space Entry Permits

Confined Space Entry Permits must be completed before any Employee enters a Permit-Required Confined Space.

Permits must be signed by the entry supervisor. Completed permit must be available at time of entry to entrants/representatives by posting at entry portal.

Permit duration may not exceed the time required to complete the assigned task identified on the permit. Permits will expire before the completion of the shift or if any pre-entry conditions change.

Permits must identify:

- ✦ Space to be entered
- ✦ Purpose of entry
- ✦ Date and authorized duration
- ✦ Authorized entrants by name
- ✦ Attendants by name
- ✦ Hazards of space
- ✦ Measures to eliminate or control hazards
- ✦ Acceptable entry conditions
- ✦ Results of testing/monitoring including initials of tester and time of testing
- ✦ Rescue services that can be summoned and means to summon
- ✦ Communications procedures
- ✦ Equipment needed
- ✦ Additional permits such as hot work.



The entry supervisor must terminate entry when operations covered by the permit are completed or suspend and reassess when a condition that is not allowed under permit arises and is not temporary. Entry permits must be retained for at least one year. *27.3.5.5 Contractor Entry*

All work by non-government employees that involves the entry into confined spaces will follow the procedures of this program. The information of this program and known specific hazards of the confined spaces to be entered will be provided to Contractor Management prior to commencing entry or work.

27.3.5.6 Emergency Procedures for Injured Person

- ✦ Follow normal procedures for injured person and fire (call 911, etc.).
- ✦ Never enter without testing oxygen, explosive and toxic gases levels.
- ✦ Wear proper personal protective equipment necessary.
- ✦ The injured person basket (man basket) and/or full body harness shall be used for retrieval of the injured worker.

Never enter the area without assistance and a safety “attendant” in place.

- ✦ If you are not sure of the situation, wait for the proper emergency medical personnel.

*****Note:** Over 50% of workers that die in a confined space area are attempting to rescue other workers.

*****Note:** Please refer to 1926.21 (b)(6)(i) & (ii) and 1910.146 for specific safety rules and regulations for Confined Space Entry.

27.3.5.7 Confined Space Entry Plan

- ✦ Before entering the confined space, make sure there is adequate ventilation and lighting. Oxygen levels, explosive levels and toxic fume levels should be checked before entering and periodically while in the confined space. The proper personal protective equipment (safety glasses, hard hats, hard soled shoes, proper respirator required for task at hand, etc.) should ALWAYS be worn.
- ✦ The safety “attendant” shall always be in place while work is being performed. If the safety attendant should leave his area for any reason, the alternate safety attendant shall be in place before work continues.
- ✦ Anyone required to work in a confined space where welding, waterproofing, grinding of concrete, or any other related activity that generates toxic fumes occurs will be required to wear a full body harness with lifeline attached **AT ALL TIMES**.

27.3.5.8 Atmosphere

The atmosphere must be tested each time before entering a confined space, especially during times when the task at hand creates toxic fumes and/or could cause an oxygen-enriched or depleted environment.

- ✦ The normal oxygen level is 21%. The minimum oxygen level to enter a confined space without a self-contained breathing apparatus is 19.5%. If the oxygen level is greater than 23.5%, the environment is oxygen enriched, and flammables and combustibles can ignite more rapidly and/or violently.



- ✦ Only a trained, qualified person should test the atmosphere for oxygen, explosives and toxic gases. The following gases are typical gases that may be found in a confined space:
 - Hydrogen sulfide
 - Carbon monoxide
 - Methane gas
 - Carbon dioxide
- ✦ Always test the bottom, middle, and top of the confined space area. Some gases are lighter or heavier than others and settle at different elevations.

Employees, or their representatives, are entitled to request additional monitoring at any time.

27.3.5.9 Ventilation

- ✦ Ensure that there is adequate ventilation and lighting.
- ✦ ALWAYS maintain ventilation and lighting.
- ✦ NEVER use pure oxygen to ventilate an atmosphere.
- ✦ If the oxygen level is below 19.5%, you will experience rapid fatigue.
- ✦ If the oxygen level is above 23.5%, the atmosphere becomes extremely flammable and combustible. If a fire should develop, everything will burn or ignite rapidly.

27.3.5.10 Respiratory Protection

- ✦ The proper respirator must be worn to match the task at hand.
- ✦ The workers must be properly trained in how to correctly wear and inspect the respirator they are required to wear.
- ✦ Any welding, cutting, brazing, painting, grinding, waterproofing, etc., which may produce toxic gases and/or deplete or enrich the oxygen levels in the confined space require that all workers inside the confined space wear full body harnesses with a life line attached in the event of an emergency where retrieval is necessary. These operations may also create a combustible atmosphere, which will also require the full body harness with the lifeline attached.
- ✦ If any operation causes an oxygen level of less than 19.5% and/or creates a combustible atmosphere where proper ventilation cannot increase the oxygen to acceptable levels, a self-contained breathing apparatus may be required to be worn by all workers. If a self-contained breathing apparatus is worn, then proper training will be required for all workers, including the safety attendant.



- ✦ If respirators are used, a written Respirator Program shall be implemented prior to entering any confined space.

27.3.5.11 Confined Space Entry Team

- ✦ **“Entrant”** – All workers / entrants of the confined space shall be thoroughly trained in the Confined Space Program.
- ✦ **“Attendant”** – All worker / entrants shall be constantly monitored by an attendant trained in the Confined Space Program.
- ✦ **“Entry Supervisor”** – Entry Supervisors shall supervise all Confined Space operations. Entry Supervisors shall be trained in the Confined Space Program.

27.3.6 Confined Space Hazards – Detailed

27.3.6.1 Flammable Atmospheres

A flammable atmosphere generally arises from enriched oxygen atmospheres, vaporization of flammable liquids, byproducts of work, chemical reactions, concentrations of combustible dusts, and desorption of chemical from inner surfaces of the confined space.

An atmosphere becomes flammable when the ratio of oxygen to combustible material in the air is neither too rich nor too lean for combustion to occur. Combustible gases or vapors will accumulate when there is inadequate ventilation in areas such as a confined space. Flammable gases such as acetylene, butane, propane, hydrogen, methane, natural or manufactured gases or vapors from liquid hydrocarbons can be trapped in confined spaces, and since many gases are heavier than air, they will seek lower levels as in pits, sewers, and various types of storage tanks and vessels. In a closed top tank, it should also be noted that lighter than air gases may rise and develop a flammable concentration if trapped above the opening.

The byproducts of work procedures can generate flammable or explosive conditions within a confined space. Specific kinds of work such as spray painting can result in the release of explosive gases or vapors. Welding in a confined space is a major cause of explosions in areas that contain combustible gas.

Chemical reactions forming flammable atmospheres occur when surfaces are initially exposed to the atmosphere, or when chemicals combine to form flammable gases. This condition arises when dilute sulfuric acid reacts with iron to form hydrogen or when calcium carbide contacts water to form acetylene. Other examples of spontaneous chemical reactions that may produce explosions from small amounts of unstable compounds are acetylene-metal compounds, peroxides, and nitrates. In a dry state, these compounds have the potential to explode upon percussion or exposure to increased temperature. Another class of chemical reactions that form flammable atmospheres arises from deposits of pyrophoric substances (carbon, ferrous oxide, ferrous sulfate, iron, etc.) that can be found in tanks used by the chemical and petroleum industry. These tanks containing flammable deposits will spontaneously ignite upon exposure to air.

Combustible dust concentrations are usually found during the process of loading, unloading, and conveying grain products, nitrated fertilizers, finely ground chemical products, and any other combustible material. High charges of static electricity, which rapidly accumulate during periods of relatively low humidity (below 50%) can cause certain substances to accumulate electrostatic charges of enough energy to produce sparks and ignite a flammable atmosphere. These sparks may also cause explosions when the right air or oxygen to dust or gas mixture is present.

27.3.6.2 Toxic Atmospheres

The substances to be regarded as toxic in a confined space can cover the entire spectrum of gases, vapors, and finely divided airborne dust in industry. The sources of toxic atmospheres encountered may arise from the following:

The manufacturing process (for example, in producing polyvinyl chloride, hydrogen chloride is used as well as vinyl chloride monomer, which is carcinogenic).

The product stored [removing decomposed organic material from a tank can liberate toxic substances, such as hydrogen sulfide (H₂S)].

The operation performed in the confined space (for example, welding or brazing with metals capable of producing toxic fumes).

During loading, unloading, formulation, and production, mechanical and/or human error may also produce toxic gases which are not part of the planned operation.

Carbon monoxide (CO) is a hazardous gas that may build up in a confined space. This odorless, colorless gas that has approximately the same density as air is formed from incomplete combustion of organic materials such as wood, coal, gas, oil, and gasoline; it can be formed from microbial decomposition of organic matter in sewers, silos, and fermentation tanks. Carbon monoxide is an insidious toxic gas because of its poor warning properties. Early stages of CO intoxication are nausea and headache. Carbon monoxide may be fatal at 1000 ppm in air, and is considered dangerous at 200 ppm, because it forms carboxyhemoglobin in the blood which prevents the distribution of oxygen in the body.

Carbon monoxide is a relatively abundant colorless, odorless gas; therefore, any untested atmosphere must be suspect. It must also be noted that a safe reading on a combustible gas indicator does not ensure that CO is not present. Carbon monoxide must be tested for specifically. The formation of CO may result from chemical reactions or work activities, therefore fatalities due to CO poisoning are not confined to any industry. There have been fatal accidents in sewage treatment plants due to decomposition products and lack of ventilation in confined spaces. Another area where CO results as a product of decomposition is in the formation of silo gas in grain storage elevators. In another area, the paint industry, varnish is manufactured by introducing the various ingredients into a kettle, and heating them in an inert atmosphere, usually town gas, which is a mixture of carbon dioxide and nitrogen.

In welding operations, oxides of nitrogen and ozone are gases of major toxicological importance, and incomplete oxidation may occur, and carbon monoxide can form as a byproduct.

Another poor work practice, which has led to fatalities, is the recirculation of diesel exhaust emissions. Increased CO levels can be prevented by strict control of the ventilation and the use of catalytic converters.

27.3.6.3 Irritant (Corrosive) Atmospheres

Irritant or corrosive atmospheres can be divided into primary and secondary groups. The primary irritants exert no systemic toxic effects (effects on the entire body). Examples of primary irritants are chlorine, ozone, hydrochloric acid, hydrofluoric acid, sulfuric acid, nitrogen dioxide, ammonia, and sulfur dioxide. A secondary irritant is one that may produce systemic toxic effects in addition to surface irritation. Examples of secondary irritants include benzene, carbon tetrachloride, ethyl chloride, trichloroethane, trichloroethylene, and chloropropene.

Irritant gases vary widely among all areas of industrial activity. They can be found in plastics plants, chemical plants, the petroleum industry, tanneries, refrigeration industries, paint manufacturing, and mining operations.

Prolonged exposure at irritant or corrosive concentrations in a confined space may produce little or no evidence of irritation. This may result in a general weakening of the defense reflexes from changes in sensitivity. The danger in this situation is that the worker is usually not aware of any increase in his/her exposure to toxic substances.

27.3.6.4 Asphyxiating Atmospheres

The normal atmosphere is composed approximately of 20.9% oxygen and 78.1% nitrogen, and 1% argon with small amounts of various other gases. Reduction of oxygen in a confined space may be the result of either consumption or displacement.

The consumption of oxygen takes place during combustion of flammable substances, as in welding, heating, cutting, and brazing. A more subtle consumption of oxygen occurs during bacterial action, as in the fermentation process. Oxygen may also be consumed during chemical reactions as in the formation of rust on the exposed surface of the confined space (iron oxide). The number of people working in a confined space and the amount of their physical activity will also influence the oxygen consumption rate.

A second factor in oxygen deficiency is displacement by another gas. Examples of gases that are used to displace air, and therefore reduce the oxygen level are helium, argon, and nitrogen. Carbon dioxide may also be used to displace air and can occur naturally in sewers, storage bins, wells, tunnels, wine vats, and grain elevators. Aside from the natural development of these gases, or their use in the chemical process, certain gases are also used as inerting agents to displace flammable substances and retard pyrophoric reactions. Gases such as nitrogen, argon, helium, and carbon dioxide, are frequently referred to as non-toxic inert gases but have claimed many lives. The use of nitrogen to inert a confined space has claimed more lives than carbon dioxide. The total displacement of oxygen by nitrogen will cause immediate collapse and death. Carbon dioxide and argon, with specific gravities greater than air, may lie in a tank or manhole for hours or days after opening. Since these gases are colorless and odorless, they pose an immediate hazard to health unless appropriate oxygen measurements and ventilation are adequately carried out.

Oxygen deprivation is one form of asphyxiation. While it is desirable to maintain the atmospheric oxygen level at 21% by volume, the body can tolerate deviation from this ideal. When the oxygen level falls to 17%, the first sign of hypoxia is deterioration to night vision which is not noticeable until a normal oxygen concentration is restored. Physiologic effects are increased breathing volume and accelerated heartbeat. Between 14-16% physiologic effects are increased breathing volume, accelerated heartbeat, very poor muscular coordination, rapid fatigue, and intermittent respiration. Between 6-10% the effects are nausea, vomiting, inability to perform, and unconsciousness. Less than 6% cause spasmodic breathing, convulsive movements, and death in minutes.

27.3.6.5 Mechanical Hazards

If activation of electrical or mechanical equipment would cause injury, each piece of equipment should be manually isolated to prevent inadvertent activation before workers enter or while they work in a confined space. The interplay of hazards associated with a confined space, such as the potential of flammable vapors or gases being present, and the build-up of static charge due to mechanical cleaning, such as abrasive blasting, all influence the precautions which must be taken.

To prevent vapor leaks, flashbacks, and other hazards, workers should completely isolate the space. To completely isolate a confined space, the closing of valves is not enough. All pipes must be physically disconnected, or isolation blanks bolted in place. Other special precautions must be taken in cases where flammable liquids or vapors may recontaminate the confined space. The pipes blanked or disconnected should be inspected and tested for leakage to check the effectiveness of the procedure. Other areas of concern are steam valves, pressure lines, and chemical

transfer pipes. A less apparent hazard is the space referred to as a void, such as double walled vessels, which must be given special consideration in blanking off and inerting.

27.3.6.6 Thermal Effects

Four factors influence the interchange of heat between people and their environment. They are: (1) air temperature, (2) air velocity, (3) moisture contained in the air, and (4) radiant heat. Because of the nature and design of most confined spaces, moisture content and radiant heat are difficult to control. As the body temperature rises progressively, workers will continue to function until the body temperature reaches approximately 102°F. When this body temperature is exceeded, the workers are less efficient, and are prone to heat exhaustion, heat cramps, or heat stroke. In a cold environment, certain physiologic mechanisms come into play, which tend to limit heat loss and increase heat production. The most severe strain in cold conditions is chilling of the extremities so that activity is restricted. Special precautions must be taken in cold environments to prevent frostbite, trench foot, and general hypothermia.

Protective insulated clothing for both hot and cold environments will add additional bulk to the worker and must be considered in allowing for movement in the confined space and exit time. Therefore, air temperature of the environment becomes an important consideration when evaluating working conditions in confined spaces.

27.3.6.7 Noise

Noise problems are usually intensified in confined spaces because the interior tends to cause sound to reverberate and thus expose the worker to higher sound levels than those found in an open environment. This intensified noise increases the risk of hearing damage to workers which could result in temporary or permanent loss of hearing. Noise in a confined space which may not be intense enough to cause hearing damage may still disrupt verbal communication with the emergency standby person on the exterior of the confined space. If the workers inside are not able to hear commands or danger signals due to excessive noise, the probability of severe accidents can increase.

27.3.6.8 Vibration

Whole body vibration may affect multiple body parts and organs depending upon the vibration characteristics. Segmental vibration, unlike whole body vibration, appears to be more localized in creating injury to the fingers and hands of workers using tools, such as pneumatic hammers, rotary grinders or other hand tools which cause vibration.

27.3.6.9 Other Hazards

Some physical hazards cannot be eliminated because of the nature of the confined space or the work to be performed. These hazards include such items as scaffolding, surface residues, and structural hazards. The use of scaffolding in confined spaces has contributed to many accidents caused by workers or materials falling, improper use of guard rails, and lack of maintenance to ensure worker safety. The choice of material used for scaffolding depends upon the type of work to be performed, the calculated weight to be supported, the surface on which the scaffolding is placed, and the substance previously stored in the confined space.

Surface residues in confined spaces can increase the already hazardous conditions of electrical shock, reaction of incompatible materials, liberation of toxic substances, and bodily injury due to slips and falls. Without protective clothing, additional hazards to health may arise due to surface residues.



Structural hazards within a confined space such as baffles in horizontal tanks, trays in vertical towers, bends in tunnels, overhead structural members, or scaffolding installed for maintenance constitute physical hazards, which are exacerbated by the physical surroundings. In dealing with structural hazards, workers must review and enforce safety precautions to assure safety.



Section 28 - CRANES

28.1 Purpose

The safe operation and proper maintenance of cranes on the site shall be the overall responsibility of each contractor and/or trade. Each contractor and/or trade shall also be held accountable for compliance with the applicable regulatory agency's crane rules and regulations for all cranes on a RALIN site.

28.2 Goal

The goal of this program is to ensure that all personnel utilize cranes in the safest manner possible.

28.3 Policy

Cranes are always sub-contracted out by RALIN and Associates. Cranes and the operations of cranes must meet all applicable regulatory requirements and guidelines.

28.3.1 Roles and Responsibility

RALIN (all employers) is responsible for ensuring that all cranes on a RALIN project are used in a safe manner.

Trades are responsible for enforcing the safe use of cranes by their employees (operating or ground workers).

28.3.1.1 Supervisor

The Supervisor shall personally talk to crane operators on the job. An operator will be used only after:

- ✦ The Supervisor is satisfied the operator is experienced on the type of equipment to be operated for the type of work being performed.
- ✦ Employees have been instructed to avoid overhead and suspended crane loads.
- ✦ All above ground electrical lines are flagged, de-energized, or insulated by the local electrical power company.

28.3.1.2 Contractor / Trade

The contractor and/or trade will make sure that rigging equipment is in good condition and provided with safety devices as applicable.

This includes such things as:

- ✦ Safety latches on hoisting hooks
- ✦ Chains, wire rope, slings, etc., are free from defects and conform with standard load ratings for work being done
- ✦ Eye splices conform to safety standards



28.3.2 Training

All employees involved in crane operations must be trained in the proper inspection, safety features and proper use of a crane in accordance with manufacturer's recommendations and regulatory requirements (OSHA, MSHA, etc.).

Each employer shall ensure that all employees involved in crane activities receive comprehensive training as to their responsibilities. This shall include hand signals and those authorized to give signals.

Operators and crew assigned to work with the equipment shall be trained on the procedures to be followed in the event of electrical contact with a power line.

Crane operators shall have adequate training and proper authorization prior to operating any crane. Documentation that certifies the training must be available for review within 15 minutes.

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of equipment changes or when the employee demonstrates lack of use, improper use, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

28.3.3 Inspection and Maintenance

Prior to every shift cranes will be inspected in accordance with 29 CFR 1926.1412. Defective or damaged equipment shall not be used and shall be removed from service until restored to an acceptable service condition.

All Equipment shall be inspected by a competent person prior to use. [1926.550(a)(5)]

A brief summary of required crane inspections and documented prior to every use:

- Daily
- Weekly
- Annual

Inspections for each shift are required for all cranes on our projects.

No crane will be brought onto the project without a current annual inspection by a qualified third party. A copy of the current annual inspection must always be provided to the project manager and remain in the crane.

Monthly Inspections are required for all cranes that reside on the project for greater than 30 calendar days, regardless of operating days during that period. Written documentation must be maintained at the project.

28.3.3.1 Recordkeeping

All records pertaining to crane inspections shall be kept onsite with the crane.

If, during any safety inspection, the operator or supervisor cannot produce the required crane inspection and certification sheets, the crane shall be shut down and inspected.

The crane operations and maintenance manual shall always be located on each crane in the cab.



28.3.4 Ground Conditions

Cranes shall not be assembled or used unless ground conditions are firm, drained (except for marshes/wetlands), and graded to a sufficient extent so that, in conjunction (if necessary) with the use of supporting materials, the equipment manufacturer's specifications for adequate support and degree of level of the equipment are met.

As the controlling contractor, RALIN must:

- Pre-plan and ensure that all ground preparations necessary are provided (to include transit/ travel to setup location).
- Inform the user of the equipment, and the operator, of the location of hazards beneath the equipment setup area (such as voids, tanks, utilities) that are identified in documents (such as site drawings, as-built drawings, and soil analyses) if they are available.
- Tower crane foundations must be a designed system, certified by a professional engineer, taking all loads and soil conditions into consideration.

1926.1402(b) Cranes must not be assembled or used unless ground conditions are firm, drained, and graded to a sufficient extent so that, in conjunction (if necessary) with the use of supporting materials, the equipment manufacturer's specifications for adequate support and degree of level of the equipment are met. The requirement for the ground to be drained does not apply to marshes/wetlands.

The controlling entity responsible (RALIN) for the project must ensure that ground conditions are adequate for crane support.

28.3.5 Outriggers

"Blocking" shall always be used under outrigger floats to prevent deflection or sinking. Outriggers shall always be fully extended.

Only rigid, tightly spaced blocking shall be used under outrigger floats.

28.3.6 Operator Requirements

Operator certification is required effective November 10, 2017. Until then, trades and crane rental companies must submit either proof of operator certification for the specific type of crane they will be operating, OR a letter of qualification explaining the operator's qualification to operate the intended crane.

Whenever there is a concern as to safety, the operator shall have the authority to STOP and REFUSE to handle loads until a qualified person has determined that safety has been assured

Effective November 10, 2017, crane operators must be certified by National Commission for the Certification of Crane Operators (NCCCO).

28.3.7 Prior to operation the project manager must:

Review and inspect the certification documentation for types of cranes the operator is certified to operate.

These guidelines do not overrule any local, state or federal requirements. In the event of conflict, the more stringent standard shall prevail.



28.3.8 Power Line Requirements for Crane Assembly/Disassembly

Before assembling or disassembling a crane, the competent person must determine if any part of the crane, load line or load (including rigging and lifting accessories) could get within 20 feet of a power line during the assembly/disassembly process. If so, we must meet the requirements in Option (1), Option (2), or Option (3), as follows:

Option (1) – De-energize and ground: Confirm from the utility owner/operator that the power line has been deenergized and visibly grounded at the worksite.

Option (2) – 20-foot clearance: Ensure that no part of the crane, load line or load (including rigging and lifting accessories), gets within 20 feet of the power line by implementing the measures specified in (b).

Option (3) – Table A clearance. (NOTE: Work within Table A requires advance notice to RALIN safety manager who will assist and coordinate such activities)

28.3.9 Preventing encroachment/electrocution

Where encroachment precautions are required under Option (2) or Option (3), the following requirements must be met:

Conduct a planning meeting with the competent-qualified person who will supervise the assembly/disassembly process, operator, assembly/disassembly crew and the other workers who will be in the assembly/disassembly area to review the location of the power line(s) and the steps that will be implemented to prevent encroachment/electrocution.

If tag lines are used, they must be non-conductive.

At least one of the following additional measures must be in place:

1. Use a dedicated spotter. The spotter must:
 - a. Be equipped with a visual aid to assist in identifying the minimum clearance distance. Examples of a visual aid include but are not limited to: a line painted on the ground; a clearly visible line on stanchions; a set of clearly visible line-of-sight landmarks (such as a fence post behind the spotter and a building corner ahead of the spotter).
 - b. Be positioned to effectively gauge the clearance distance.
 - c. Where necessary, use equipment that enables the spotter to communicate directly with the crane operator, in accordance with Section 1420 (Radio, telephone, or other electronic transmission of signals).
 - d. Give timely information to the crane operator so that the required clearance distance can be maintained.
2. Use of a proximity alarm.
3. A range control warning device.
4. A device that automatically limits range of movement.
5. An elevated warning line, barricade, or line of signs, in view of the operator, equipped with flags or similar high-visibility markings.



28.3.10 Assembly/disassembly below power lines prohibited

No part of a crane, load line or load (including rigging and lifting accessories), whether partially or fully assembled, is allowed below a power line unless the employer has confirmed that the utility owner/operator has de-energized and (at the worksite) visibly grounded the power line.

28.3.11 Assembly/disassembly inside Table A clearance prohibited

No part of a crane, load line or load (including rigging and lifting accessories), whether partially or fully assembled, is allowed within the minimum approach distance under Table A of a power line unless the employer has confirmed that the utility owner/operator has de-energized and (at the worksite) visibly grounded the power line.

28.3.12 Power lines presumed energized

Must assume that all power lines are energized unless the utility owner/operator confirms that the power line has been and continues to be de-energized and visibly grounded at the worksite.

28.3.13 Posting of electrocution warnings

There must be at least one electrocution hazard warning conspicuously posted in the cab so that it is in view of the operator and (except for overhead gantry and tower cranes) at least two on the outside of the equipment.

28.3.14 Power line safety (up to 350 kV) – Crane Operations

Before beginning crane operations, RALIN must:

1. Identify the work zone
 - a. Define a work zone by demarcating boundaries (such as with flags, or a device such as a range limit device or range control warning device) and prohibit the operator from operating the crane past those boundaries, or
 - b. Define the work zone as the area 360 degrees around the crane, up to the crane's maximum working radius.
2. Determine if any part of the crane, load line or load (including rigging and lifting accessories), if operated up to the crane's maximum working radius in the work zone, could get within 20 feet of a power line.
 - a. If so, the employer must meet the requirements in Option (1), Option (2), or Option (3), as follows:
 - i. Option (1) – De-energize and ground: Confirm from the utility owner/operator that the power line has been de-energized and visibly grounded at the worksite.
 - ii. Option (2) – 20-foot clearance: Ensure that no part of the crane, load line or load (including rigging and lifting accessories), gets within 20 feet of the power line by implementing the measures specified in (b).
 - iii. Option (3) – Table A clearance: (NOTE: Work within Table A requires advance notice to RALIN safety manager who will assist and coordinate such activities)



28.3.15 Preventing encroachment/electrocution

Where encroachment precautions are required under Option (2) or Option (3), the following requirements must be met:

Conduct a planning meeting with the operator and the other workers who will be in the area of the crane or load to review the location of the power line(s), and the steps that will be implemented to prevent encroachment/electrocution.

If tag lines are used, they must be non-conductive.

Erect and maintain an elevated warning line, barricade, or line of signs, in view of the crane operator, equipped with flags or similar high-visibility markings, at 20 feet from the power line (if using Option (2)) or at the minimum approach distance under Table A (if using Option (3)).

Implement at least one of the following measures:

- ✦ A proximity alarm set to give the operator sufficient warning to prevent encroachment.
- ✦ A dedicated spotter who is in continuous contact with the crane operator. Where this measure is selected, the spotter must:
 - Be equipped with a visual aid to assist in identifying the minimum clearance distance. Examples of a visual aid include but are not limited to: a line painted on the ground; a clearly visible line on stanchions; a set of clearly visible line-of-sight landmarks (such as a fence post behind the spotter and a building corner ahead of the spotter).
 - Be positioned to effectively gauge the clearance distance.
 - Where necessary, use equipment that enables the spotter to communicate directly with the crane operator.
 - Give timely information to the crane operator so that the required clearance distance can be maintained.
 - A device that automatically warns the operator when to stop movement, such as a range control warning device. Such a device must be set to give the operator sufficient warning to prevent encroachment.
 - A device that automatically limits range of movement, set to prevent encroachment.
 - An insulating link/device installed at a point between the end of the load line (or below) and the load.

28.3.16 Special Provisions

1. Prior to its initial use on the site, or after repairs have been made, each crane shall be thoroughly inspected by a Competent Person. The manufacturer's representatives or the vendor supplying the equipment (for leased or rented units) may be used for this purpose. Any deficiencies found shall be corrected before the equipment is placed into service.
2. A copy of the annual certification inspection shall be available on the job site.



3. Each contractor shall designate a Competent Person who shall inspect all cranes daily as a part of the contractor's jobsite inspection program. Such inspections shall be documented. Defective equipment shall be removed from service and repaired. At a minimum, the weekly inspection shall consist of:
 - ✦ Wire ropes, guys, hoist and trolley cable
 - ✦ Jib and counterweights
 - ✦ Hoist rope anchorage on winding drum
 - ✦ Safety latches and hooks
4. Each contractor supplying the equipment shall inspect each crane at least monthly and provide to RALIN a written report as to the results of the inspection. Defective equipment shall be removed from service.
5. Loads shall not be passed or suspended over persons.
6. Tag lines or guide ropes shall be used when needed to control swinging loads.
7. Barricades for employee safety shall be maintained around the swing radius of crane.

28.3.17 Use

All manufacturer specifications and limitations must be adhered to. [1926.550(a)(1)]

The manufacturer's instructions, procedures and prohibitions must be complied with when assembling and disassembling equipment.

1926.1404(a)(1) Supervision-competent-qualified person. Assembly/disassembly must be directed by a person who meets the criteria for both a competent person and a qualified person, or by a competent person who is assisted by one or more qualified persons ("A/D director").

1926.1404(a)(2) Where the assembly/disassembly is being performed by only one person, that person must meet the criteria for both a competent person and a qualified person. For purposes of this standard, that person is considered the assembly/disassembly (A/D) director.

A signal person must be provided for the following situations:

- The point of operation is not in full view of the operator;
- The view is obstructed when the equipment is traveling;
- If site specific conditions require it; or
- The operator or the person handling the load determines it is necessary due to site specific concerns.

The manufacturer must approve all modifications/additions in writing. A registered professional engineer must be qualified with respect to the equipment involved and must ensure the original safety factor of the equipment is not reduced.



Accessible areas of the "swing radius" shall be barricaded to prevent employees from being struck or crushed by the crane. [1926.550(a)(9)]

The use of a crane to hoist employees is prohibited. [1926.550(g)(2)]

Plan your work and train your crew prior to performing activities with cranes and rigging.

All Riggers and Signal persons must be certified by training.

Cranes must be inspected each shift, monthly and annually with documentation. RALIN must have a record on file collected by site management.

A professional engineer must plan all multi-crane lifts.

Forklifts, when configured like a crane, fall under this regulation.

Posting of electrocution warnings is required, one on the inside of the cab and two on the outside of the equipment.

Spotters are now required to watch for proper separation between any part of a crane or load and power lines.

Persons operating cranes with capacity rating greater than 1-ton will require certification.

Employers must provide certification and/or qualification at no cost to the employee.

Riggers working to assemble and disassemble cranes and all persons who may signal a crane have to be qualified.

Crane Operators have until November 10, 2017 to meet the new certification requirements.

Mobile Crane operators will require a "certification" such as from the National Commission for the Certification of Crane Operators (NCCCO) no later than November 10, 2017.



Section 29 - ELECTRICAL SAFETY AWARENESS

29.1 Purpose

This program is designed to increase awareness to all RALIN employees and trades of the hazards involved with electricity on RALIN projects and property.

29.2 Goal

The goal of this program is to ensure that all personnel are more knowledgeable about the hazards associated with electricity and to inform personnel of the means and methods available to eliminate or minimize exposure to shock, injury or property damage.

29.3 Policy

29.3.1 Roles and Responsibility

RALIN (all employers) is responsible for ensuring that all personnel are aware of electrical hazards.

29.3.2 Training

All employees working with electrical hazards as part of their normal daily work task(s) must be trained in the proper inspection and safety practices in accordance with regulatory requirements (OSHA, MSHA, etc.).

All employees must be trained in the electrical safety related work practices that pertain to their respective job assignments.

Employees who face a risk of electric shock but who are not qualified persons shall be trained and familiar with electrically related safety practices.

Employees shall be trained in safety related work practices as it pertains to clearance distances.

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of means and methods change or when the employee demonstrates lack of knowledge, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

29.3.3 Assured equipment grounding conductor program

The employer shall establish and implement an assured equipment grounding conductor program on construction sites covering all cord sets, receptacles which are not a part of the building or structure, and equipment connected by cord and plug which are available for use or used by employees. This program shall comply with the following minimum requirements:

- A written description of the program, including the specific procedures adopted by the employer, shall be available at the jobsite for inspection and copying by the Assistant Secretary and any affected employee.



- The employer shall designate one or more competent persons (as defined in 1926.32(f)) to implement the program.
- Each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug, except cord sets and receptacles which are fixed and not exposed to damage, shall be visually inspected before each day's use for external defects, such as deformed or missing pins or insulation damage, and for indications of possible internal damage. After de-energizing the device, extension cords or cord sets shall be removed from the site or have damaged portions removed by whomever identifies the deficiency immediately. Electrical equipment found damaged or defective shall not be used until repaired.
- The following tests shall be performed on all cord sets, receptacles which are not a part of the permanent wiring of the building or structure, and cord- and plug-connected equipment required to be grounded:
 - All equipment grounding conductors shall be tested for continuity and shall be electrically continuous.
 - Each receptacle and attachment cap or plug shall be tested for correct attachment of the equipment grounding conductor. The equipment grounding conductor shall be connected to its proper terminal.
- All required tests shall be performed:
 - Before first use;
 - Before equipment is returned to service following any repairs;
 - Before equipment is used after any incident which can be reasonably suspected to have caused damage (for example, when a cord set is run over); and
 - At intervals not to exceed 3 months, except that cord sets and receptacles which are fixed and not exposed to damage shall be tested at intervals not exceeding 6 months.

The employer shall not make available or permit the use by employees of any equipment which has not met the requirements of this paragraph (b)(1)(iii) of this section.

Tests performed as required in this paragraph shall be recorded. This test record shall identify each receptacle, cord set, and cord- and plug-connected equipment that passed the test and shall indicate the last date it was tested or the interval for which it was tested. This record shall be kept by means of logs, color coding, or other effective means and shall be maintained until replaced by a more current record. The record shall be made available on the jobsite for inspection by the Assistant Secretary and any affected employee.

29.3.4 Use

This electrical section applies to installations, both temporary and permanent, used on the jobsite. [1926.402(a)]:

All electrical conductors and equipment shall be approved. [1926.403(a)]

All energized electrical panels must always be locked and only accessible to qualified electricians.



Ground Fault Circuit Interrupters (GFCI) must be utilized for all temporary electrical power.

Electrical supply on RALIN sites must comply with a Grounding Conductor Program - 1926.404(b)

All 120-volt, single phase, 15-amp and 20-amp receptacles must be protected by G.F.C.I. [1926.404(b)(1)(ii)]

Ensure all electrical equipment is free from recognized hazards that are likely to cause death or serious harm to employees. [1926.403(b)]

All portable generators rated at 5KW or more used to power individual tools must be equipped with GFCI protection.

Splices must be soldered wire connections with insulation equal to the cable. [1926.403(e)]

Temporary lights shall not be suspended by their cords. [1926.405(a)(2)(ii)(F)]

All extension cords must be three wire types, and they must be equipped with a ground pin on the male end of the cord. They must also be protected from damage, and not fastened with staples, hung from nails or suspended from wires.

[1926.405(a)(2)(ii)(J)] & [1926.416(e)(2)]

All extension cords must be rated for hard or extra hard usage. 12-gauge extension cords are recommended. 14-gauge cords that are damaged may not be repaired; they must be removed from the site.

All extension cords (cord sets) shall be inspected daily, prior to use, for damage or defects. Any damaged cords, or cords missing ground pins, must be removed from the project. No cord or tool with a damaged ground plug shall be used.

Extension cords (cord sets) may not be "daisy chained". An extension cord must be used in one continuous length. The connection shall progress from a GFCI protected device to a single extension cord to the final tool or device. No more than one tap is allowed on a single length. In other words, a single extension cord may not be established with more than one tap at the end opposite of the original GFCI protected receptacle. If not using more than a single 100-foot extension cord is preventing a scope of work from being performed, the site superintendent is required to test and document that the intended use will not overload the circuit using the project's qualified sub-contracted electrician (this document must be maintained in the sub's onsite site-specific safety plan that is utilizing the daisy chain approach).

3-way pigtails with an integrated GFCI protection only are authorized.

Flexible cords and cables shall be protected from damage. [1926.405(a)(2)(ii)(I)]

Worn or frayed electrical cords or cables shall not be used. [1926.416(e)(1)]

Workspaces, walkways, and similar locations shall be kept clear of cords. [1926.416(b)(2)]

Cables passing through work areas will be covered or elevated to protect from damage. Boxes with covers for the purpose of disconnecting must be securely and rigidly fastened to mounting surface.

Romex or other non-flexible cords may not be used as extension cords.

No employee may work in proximity to any electric power circuit that may be contacted during work, unless protected against electric shock by de-energizing circuit and grounding it, or by guarding with effective insulation. [1926.416(a)(1)]

No employee may work in proximity to any electric power circuit that may be contacted during work, unless lockout and tagout procedures have been followed in accordance with Lock-Out/ Tag-Out.



In work areas where exact location of underground electric power lines is unknown, workers using bars or other hand tools which may contact lines must wear insulated protective gloves. [1926.416(a)(2)]

Only qualified electricians can make electrical repairs on equipment, tools, etc.

Safe work practices shall be employed to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts when work is performed near or on equipment or circuits which are or may be energized.

Conductors and parts of electrical equipment that have been de-energized but not been locked or tagged out shall be treated as live parts.

Employees working on or near exposed energized parts shall observe precautions associated with exposed live parts when involved involving in either direct contact or by means of tools or materials or near enough to an employee to expose that employee to any hazard that may be present.

Energized lines shall be de-energized and grounded or other protective measures shall be provided before work is started.

When an unqualified person is working in an elevated position near overhead lines, the location shall be such that the person and the longest conductive object he or she may contact cannot come closer to any unguarded, energized overhead line than the following distances:

- For voltages to ground 50kV or below - 10 feet (305 cm);
- For voltages to ground over 50kV - 10 feet (305 cm) plus 4 inches (10 cm) for every 10kV over 50kV."

When a qualified person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, the person may not approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in Table S5

TABLE S5

Voltage range (phase to phase)	Minimum approach distance
300V and less	Avoid Contact
Over 300V, not over 750V	1 ft. 0 in. (30.5 cm)
Over 750V, not over 2kV	1 ft. 6 in. (46 cm)
Over 2kV, not over 15kV	2 ft. 0 in. (61 cm)
Over 15kV, not over 37kV	3 ft. 0 in. (91 cm)
Over 37kV, not over 87.5kV	3 ft. 6 in. (107 cm)
Over 87.5kV, not over 121kV	4 ft. 0 in. (122 cm)
Over 121kV, not over 140kV	4 ft. 6 in. (137 cm)

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 ft. (305 cm) is maintained. If the voltage is higher than 50kV, the clearance shall be increased 4 in. (10 cm) for every 10kV over that voltage.

Employees may not enter spaces containing exposed energized parts unless illumination is if enables the employees to work safely.



Protective shields, protective barriers or insulating materials as necessary shall be used when working in confined or enclosed workspaces where electrical hazards may exist.

Conductive items or apparel (e.g. jewelry, clothing, etc.) shall not be worn unless they are rendered non-conductive by covering, wrapping or other insulating means.

Energized receptacles and lighting switches during construction stages must be covered by a hard-plastic cover.

The application of electrical tape to conductive parts is not an acceptable alternative to retaining receptacle covers in place or turning off power.



Section 30 - FIRE PREVENTION PLAN

30.1 Purpose

This program establishes a fire prevention plan for all RALIN employees and trades on RALIN projects and property.

30.2 Goal

The goal of this program is to ensure that all personnel are informed of the practices and expectations to prevent fires.

30.3 Policy

The facility specific plan must include:

- A list of all major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard;
- Procedures to control accumulations of flammable and combustible waste materials;
- Procedures for regular maintenance of safeguards installed on heat-producing equipment to prevent the accidental ignition of combustible materials;
- The name or job title of employees responsible for maintaining equipment to prevent or control sources of ignition or fires; and
- The name or job title of employees responsible for the control of fuel source hazards.

30.3.1 Roles and Responsibility

RALIN (all employers) is responsible for ensuring that all personnel are aware of fire prevention methods.

30.3.2 Training

All employees must be trained in fire prevention methods that pertain to their respective job assignments.

Training will be conducted prior to initial assignment and at least annually thereafter.

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of means and methods change or when the employee demonstrates lack of knowledge, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.



30.3.3 Fire Prevention

Flammable/combustible liquids must be stored in a metal safety can with spring-loaded cover and flash arrestor. No plastic gas cans are allowed.

Flammable liquids must only be used when at least 50 feet away from open flames and other sources of ignition.

No more than twenty-five (25) gallons shall be stored in a room outside of an approved storage cabinet. [1926.152(b)(1)]

Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids. [1926.152(a)(1)] & [1926.155(L)]

Post conspicuous and legible signs prohibiting smoking in service and refueling areas. [1926.152(g)(9)]

All containers must be labeled with appropriate hazardous warnings. Keep flammable liquids in closed containers.

No smoking within twenty-five (25) feet of any fuel storage and/or fueling operations.



Section 31 - FIRE SAFETY AND PROTECTION

31.1 Purpose

This program is designed to increase awareness to all RALIN employees and trades of the hazards involved with fire on RALIN projects and property.

31.2 Goal

The goal of this program is to ensure that all personnel are more knowledgeable about the hazards associated with fire and to inform personnel of the means and methods available to eliminate or minimize exposure to fire hazards.

31.3 Policy

RALIN requires the immediate and total evacuation of employees from the workplace upon the sounding of a fire alarm signal.

31.3.1 Roles and Responsibility

RALIN (all employers) is responsible for ensuring that all personnel are aware of fire hazards.

31.3.2 Training

All employees must be trained in the fire awareness and in fire safety related work practices and evacuations that pertain to their respective job assignments.

Training will be conducted prior to initial assignment and at least annually thereafter.

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of means and methods change or when the employee demonstrates lack of knowledge, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

31.3.2.1 Fire Extinguisher

Four things that must be present to maintain a fire:

- ✦ Fuel
- ✦ Heat
- ✦ Oxygen
- ✦ Chain reactions... take away **any one** of the first three and the fire will go out.

When using a fire extinguisher, one should be upwind from the fire during extinguishing.



Stay back 8' to 10' from a grease fire because the force of the pressure / powder from the fire extinguisher may cause the grease to splatter.

Four classes of fire extinguisher ratings:

- ✦ Wood, paper, plastic
- ✦ Flammable liquids
- ✦ Electrical
- ✦ Chemical

PASS is the word used to train people properly to use a fire extinguisher:

- ✦ **P**ull the pin.
- ✦ **A**im extinguisher at base of fire.
- ✦ **S**queeze handle.
- ✦ **S**weep extinguisher from side to side.

Mount fire extinguisher:

- ✦ Minimum of 4" off the floor but no more than 60" off floor
- ✦ 40 lb. extinguisher 3'-5' from floor

Everyone should check the fire extinguisher in work area daily to make sure it has adequate pressure and that the pin is still in the proper place.

All portable fire extinguishers are subjected to an annual documented maintenance check.

All portable fire extinguishers are subjected to monthly visual and documented inspections and an annual maintenance check.

At each testing, a maintenance tag is placed on the extinguisher to show inspection date.

31.3.3 Fire Protection

A fire protection program is to be followed throughout phases of the construction and demolition work involved. It shall provide for effective firefighting equipment to be available without delay and designed to effectively meet all fire hazards as they occur. [1926.150(a)(1)]

Firefighting equipment shall always be conspicuously located and readily accessible, and periodically inspected and maintained in operating condition. [1926.150(a)(2) through (a)(4)] Report any inoperative or missing equipment to the supervisor.

Fire extinguishers, rated not less than 2A, will be provided for each (3,000) square feet of building area (or major fraction). Travel distance from any point to the nearest fire extinguisher may not exceed (100) feet. [1926.150(c)(1)(i)] All extinguishers must be regularly inspected and maintained.

Workers must be trained in use of fire extinguishers should they choose to utilize one and not evacuate as RALIN policy requires.

Workers must observe all no smoking signs/requirements.

A minimum of a 5BC fire extinguisher is required on each piece of equipment and in each vehicle.



31.4 Wood Frame Fire Protection

Fire extinguishers, rated not less than 2A, will be provided for each (3,000) square feet of building area. Travel distance from any point to the nearest fire extinguisher may not exceed (100) feet. All fire extinguishers must be inspected and maintained regularly (monthly).

31.4.2 Water Supply

A temporary or permanent water supply, of sufficient volume, duration, and pressure, required to properly operate the firefighting equipment shall be made available as soon as combustible materials accumulate. Underground water mains are to be provided and shall be installed, completed, and made available for use as soon as practicable.

A ½-inch diameter garden-type hose line, not to exceed 100 feet in length and equipped with a nozzle, may be substituted for a 2A-rated fire extinguisher, providing it is capable of discharging a minimum of 5 gallons per minute with a minimum hose stream range of 30 feet horizontally. The garden-type hose lines shall be mounted on conventional racks or reels. The number and location of hose racks or reels shall be such that at least one hose stream can be applied to all points in the area.

31.4.3 Sprinklers

If the facility being constructed includes the installation of automatic sprinkler protection, the installation shall closely follow the construction and be placed in service as soon as applicable laws permit following completion of each story.

31.4.4 Fire Cutoffs

Fire walls and exit stairways, required for the completed buildings, shall be given construction priority. Fire doors, with automatic closing devices, shall be hung on openings as soon as practicable.

31.5 Builders Risk

1. Site Perimeter Fencing & Fire Extinguishers per OSHA Standard (every 3,000 sq ft)
2. Rate of Rise Detectors for every 50' of corridor on every floor of building
3. Electronic Border Guards every 80' of corridor on the 1st floor at grade
4. Outdoor Sensors at all stairwells
5. 24/7 monitoring of security systems to notify authorities when triggered
6. Hot Works Program with 30 minute fire watch when soldering or welding



Section 32 - FORKLIFTS AND INDUSTRIAL TRUCKS

32.1 Purpose

This program is designed to increase awareness to all RALIN employees and trades of the requirements involved with training regarding forklifts and industrial trucks.

32.2 Goal

The goal of this program is to ensure that all personnel are aware of the requirements involved with training regarding forklifts/ powered industrial trucks.

32.3 Policy

RALIN does not use any forklifts that require training to the extent required in the following narrative. RALIN does not have a forklift training program but will readdress the issue should the need arise. RALIN scopes of work do not fall under OSHA's 29 CFR Part 1910 and therefore do not apply.

32.3.1 Training

Trainers must have the knowledge and ability (qualified) to teach and evaluate fork-lift and industrial truck operators. Formal instruction for fork-lift and industrial truck operation will include lecture, discussion, interactive computer learning, videos, and written materials. Practical training will involve instructor demonstrations and trainee exercises. Operator evaluation - critiques are required and must be documented in accordance with Z490.1 and regulatory requirements.

Training content shall include controls, capacity/ stability (with and without loads), instructions, distances, refueling, ramps, visibility and balancer, counterbalances, etc.

Fork-lift and industrial truck operators are required to be re-evaluated every three (3) years.

Mandatory refresher training shall be provided when unsafe operations are observed, after an accident, if operation a different vehicle type, changes in conditions, etc.

Retraining of employees is required when unsafe operations are observed, after an accident, if operations require different vehicle types, the workplace changes (making the earlier training obsolete), means and methods change or when the employee demonstrates lack of knowledge, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

32.3.2 Use

Only trained and certified fork-lift and industrial truck operators may operate the equipment.

Operators will inspect the fork-lift and industrial truck equipment daily or before each shift.

When driving the forklift without a load, the forks should be no more than two (2) inches from the floor.

When forklifts are used to move material, be careful with overhead objects such as lights, etc.

Operators must verify trailer chocks, supports, and dock plates prior to loading/unloading.



Never drive fast or turn fast. When forklifts are not in use, put the forklift in park, lower the fork to the ground, and engage the parking brake.

Always be careful and use caution when navigating around corners. Always blow your horn when passing a doorway or approaching a corner. Only one person is permitted on a forklift at a time.



Section 33 - LADDER SAFETY

33.1 Purpose

This program is intended to provide all RALIN employees and trades with the requirements involved with using ladders safely.

33.2 Goal

The goal of this program is to ensure that all personnel may safely use ladders on RALIN projects.

33.3 Policy

33.3.1 Training

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of means and methods change or when the employee demonstrates lack of knowledge, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

33.3.2 Use

Ladders shall not be loaded beyond the maximum intended load for which they were built, or beyond the manufacturer's rated capacity.

126.1053(a)(1)(i) Each self-supporting portable ladder: At least four times the maximum intended load, except that each extra-heavy-duty type 1A metal or plastic ladder shall sustain at least 3.3 times the maximum intended load. The ability of a ladder to sustain the loads indicated in this paragraph shall be determined by applying or transmitting the requisite load to the ladder in a downward vertical direction. Ladders built and tested in conformance with the applicable provisions of appendix A of this subpart will be deemed to meet this requirement.

126.1053(a)(1)(ii) Each portable ladder that is not self-supporting: At least four times the maximum intended load, except that each extra-heavy-duty type 1A metal or plastic ladders shall sustain at least 3.3 times the maximum intended load. The ability of a ladder to sustain the loads indicated in this paragraph shall be determined by applying or transmitting the requisite load to the ladder in a downward vertical direction when the ladder is placed at an angle of 75 1/2 degrees from the horizontal. Ladders built and tested in conformance with the applicable provisions of appendix A will be deemed to meet this requirement.

126.1053(a)(1)(iii) Each Fixed ladder: At least two loads of 250 pounds (114 kg) each, concentrated between any two consecutive attachments (the number and position of additional concentrated loads of 250 pounds (114 kg) each, determined from anticipated usage of the ladder, shall also be included), plus anticipated loads caused by ice buildup, winds, rigging, and impact loads resulting from the use of ladder safety devices. Each step or rung shall be capable of supporting a single concentrated load of at least 250 pounds (114 kg) applied in the middle of the step or rung. Ladders built in conformance with the applicable provisions of appendix A will be deemed to meet this requirement.



Inspect ladders visually daily, before use and at frequent regular intervals. If any ladder is found defective, red tag it until it is repaired or discarded. NEVER use a defective ladder.

Portable and fixed ladders with broken or missing rungs or steps, broken or split side rails, or with other faulty or defective construction are prohibited. When ladders with such defects are discovered, withdraw them from service immediately. [1926.1053(b)(16)].

Job-made ladders will be constructed for their intended use and/or load. Rungs and/or cleats will be uniformly spaced, no more than twelve (12) inches apart [1926.1053(a)(3)(i) & (a)(3)(ii)] per regulatory requirements (OSHA, MSHA, ANSI, etc.).

Ladders shall be used only for the purpose for which they were designed.

No ladders shall be used in a horizontal position as platforms, runways, or scaffolds. Extension ladders must be retracted before transporting.

All ladders must be secure. Always face ladders when going up or down.

Materials and tools should be hoisted up or down ladders with a rope or other safe hoisting method.

Never use the top (platform) or the top step of a stepladder.

All employees working in a trench four (4) feet or more in depth must be within twenty-five (25) feet of a ladder, ramp, or stairs. [1926.651(c)(2)]

Under no circumstances will an employee use anything other than a ladder, scaffold, or ramp to enter and exit excavations over four (4) feet in depth. These methods will also be wholly within a protective system if the excavation is over five (5) feet in depth. If a ramp is used, the slope shall be flat enough for employees to enter and exit in an upright position.

Portable metal ladders may not be used for electrical work or where they may contact electrical conductors. [1926.1053(b)(12)]

Portable ladders must have non-conductive side rails. **No metal or aluminum ladders.**

Portable ladders must not be utilized in the folded up (or closed) position.

No field repairs may be made to manufactured ladders.

The top or top step of a stepladder shall not be used as a step.

Single rail ladders are not allowed.

All workers must face and maintain a 3-point contact when climbing or descending ladders.

Ladders must be secured properly (to prevent movement against the heaviest anticipated load) and tied off at the top wherever possible. At a minimum, extension ladders must be equipped with slip resistant feet.

When ladders are used for access to an upper elevation, the side rails must extend at least 36 inches above the landing.

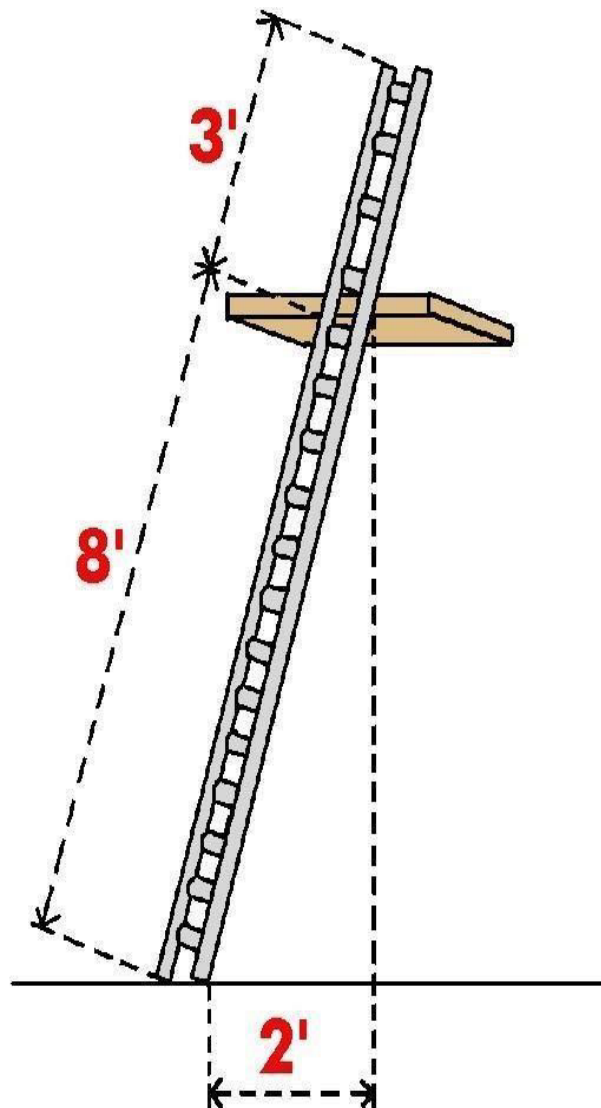
No A-Frame (a.k.a. Trestle Ladders) ladders are allowed on the project

Ladders must never be connected as a single assembly to gain additional height.

In general, ladders are to be used for access/egress and not as work platforms. Where work must be performed, it is preferable to use scaffolds or lifts.

Place portable ladders on a substantial base at a four (4) to one (1) pitch, ensure ladders have clear access at top and bottom, and extend a minimum of thirty-six (36) inches above landing. Secure against movement while in use. Where not practical, provide grab rails. [1926.1053(b)(1) thru (b)(7)]

Extension ladders must be set up so that the base of the ladder is set out at a distance from the wall equal to $\frac{1}{4}$ the working length of the ladder. See the following illustration...





Section 34 - LOCK-OUT / TAG-OUT PROGRAM

34.1 Purpose

Lockout/Tagout is the preferred method of isolating machines or equipment from energy sources. This program is designed to provide guidance and procedures for controlling the undesired release of energy (steam, hydraulic, tension, mechanical, electrical, gravitational or otherwise) in order to protect employees during maintenance, alterations or any other procedure where employees are exposed to these hazardous energy sources.

RALIN employees have specific policy in this area as lock-out/tag-out expectations and practices are considered.

To assist employers in developing a procedure which meets the requirements of the standard, the following simple procedure is provided for use with the lockout/tagout programs. This procedure may be used when there are limited numbers or types of machines/equipment, or there is a single power source. For more complex systems a more comprehensive procedure will need to be developed, documented, and utilized.

This procedure establishes the minimum requirements for the lockout/tagout of energy isolating devices. It shall be used to ensure that the machine/equipment is isolated from all potentially hazardous energy and locked out or tagged out before employees perform any servicing or maintenance activities where the unexpected energization, start-up, or release of stored energy could cause injury.

34.2 Goal

The goal of this program is to inform personnel of the means and methods available to eliminate or minimize exposure to energy hazards in the workplace.

34.3 Policy

34.3.1 RALIN Specific

RALIN employees are exposed to potential energized equipment in situations where hand and power tools are utilized. All other situations mentioned below shall be addressed by qualified technicians specific to the energy system.

Some typical examples are drills, screw guns, circular saws, reciprocating saw, chop saw, hammer drills (chisels), sump pumps, air tools, and lawn maintenance equipment.

When RALIN employees are exposed to components that under normal operating conditions would create energized conditions (e.g. electrical, mechanical, air), the employee will establish an air gap (distance from an energy source that may energize the equipment) of at least 4 feet to safely evaluate or replace pertinent pieces or parts. To create this air gap, tools or equipment shall be unplugged or detached. If an air gap cannot be established for maintenance or inspection needs, then a qualified (non-RALIN employee) technician is required.

For fueled (combustion) small engine equipment, the motor will be shut down. If an on/off switch is part of the system, then the equipment will be placed in the "off" position. If equipment shut down is impossible while addressing maintenance or inspection needs, then a qualified (non-RALIN employee) technician is required.

No RALIN employee shall maintain, repair or inspect:

- Energized HVAC or mechanical systems such as roof top units (RTU), diffusers, air filtration, fans, heavy equipment engines, etc.



- Energized electrical systems such as lights, temp lights, receptacles, switches, transformers, panels, welding machines, etc.
- Energized gas and fluid systems such as welders, sprinklers, hydraulics in heavy equipment, etc.
- Maintenance work on any automobiles or heavy equipment.

34.3.2 Roles and Responsibility

For qualified technicians or trades (e.g. electricians, mechanical techs, equipment mechanics) working on energized systems, that RALIN employees are not allowed to address for maintenance and or inspection, an authorized primary employee (e.g. foreman, team leader, etc.) has primary responsibility:

- For a set number of employees working under the protection of a group lockout or tagout device;
- To ascertain the exposure status of individual group members;
- To ensure that each employee shall attach a personal lockout or tagout device to the group's device while he/she is working and then removes it when finished; and
- Ensure the continuity of lockout or tagout procedures during shift change or personnel changes are covered by specific procedures to and documentation.

34.3.3 Training

All employees working with hazardous energy sources where lock-out/ tag-out may be required as part of their work task(s) must be trained in the proper inspection and procedures accordance with regulatory requirements (OSHA, MSHA, ANSI, etc.).

Each new or transferred employee who is affected, and other employees whose work operations are or may be in the area, shall be instructed in the purpose and use of the lockout/tagout procedure.

Retraining of employees is required as a result of a change in job assignments, in machines, a change in the energy control procedures, or a new hazard is introduced.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

34.3.4 Inspection

Periodic inspections of the energy control procedure (lock-out / tag-out) must be conducted and documented at least annually to ensure that the procedure is being followed.

The program should address who performs the inspection (it must be someone other than those actually using the lockout/tagout in progress).

An additional certified review of the inspection including date, equipment, employees & the inspector should be documented.



34.3.5 Preparation for Lock-Out or Tag-Out

Make a survey to locate and identify all isolating devices to be certain which switch(es), valve(s), or other energy isolating devices apply to the equipment to be locked or tagged out. More than one energy source (electrical, hydraulic, pneumatic, mechanical, or others) may be involved.

34.3.6 Sequence of Lock-Out / Tag-Out System Procedure

1. Notify all affected employees that a lockout / tagout system is going to be utilized and the reason, therefore. The authorized employee shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the hazards thereof.
2. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.).
3. Operate the switch, valve, or other energy isolating device(s) so that the equipment is isolated from its energy source(s). Stored energy, such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc., must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.
4. Ensure that the possibility of energy re-accumulating is eliminated.
5. Lockout/tagout the energy isolating devices with assigned individual lock(s) and/or tag(s).
6. After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate.

CAUTION: Return operating control(s) to "neutral" or "off" position after the test.

7. The equipment is now locked out or tagged out.

34.3.7 Restoring the Machines and/or the Equipment to Normal Production Operations

1. After the servicing and/or maintenance is complete and equipment is ready for normal production operations, check the area around the machines or equipment to ensure that no one is exposed.
2. After all tools have been removed from the machine or equipment, guards have been reinstalled, and employees are in the clear, remove all lockout/tagout devices to restore energy to the machine or equipment.

34.3.8 Procedure Involving More Than One Person

In the preceding steps, if more than one individual is required to lockout/tagout equipment, each shall place his/her own personal lockout device/tagout device on the energy isolating device(s). When an energy isolating device cannot accept multiple locks or tags, a multiple lockout/tagout device may be used. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in a lockout box or cabinet, which allows the use of multiple locks to secure it. Each employee will then use his/her own lock to secure the box or cabinet. As each person no longer needs to maintain his or her lockout protection, that person will remove his/her lock from the box or cabinet.



34.3.9 Basic Rules for Using Lock-Out / Tag-Out System Procedures

All equipment shall be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy isolating device where it is locked out or tagged out.

34.3.10 Use

Controls that are to be deactivated during work on energized or de-energized equipment or circuits shall be tagged. [1926.417(a)]

Equipment or circuits that are de-energized shall be rendered inoperative and shall have tags attached at all points where such equipment or circuits can be energized. [1926.417(b)]

Tags shall be placed to identify plainly the equipment or circuits being worked on. [1926.417(c)] Lockout and tagout devices shall include name of individual placing device.



Section 35 - NOISE EXPOSURE /HEARING CONSERVATION

35.1 Purpose

The purpose of this program is to establish an approach to protecting employee's hearing through analysis of noise monitoring, the use of PPE or work/rest regimens.

35.2 Goal

The goal of this program is to ensure that employees eliminate potential hearing loss through proper workplace assessments and, if required, PPE.

35.3 Policy

35.3.1 Roles and Responsibility

RALIN (all employers) is responsible for requiring the use of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions or where necessary to reduce hazards to employees [1926.28(a)] & [1926.95(a) thru (c)]. Employee-owned equipment is not permitted.

Hearing protection is available to all employees exposed to an 8-hour time-weighted average of 85 decibels at no cost to employees.

Hearing protection shall be replaced as necessary.

All employers are responsible for enforcing the use of hearing protection worn by employees.

35.3.2 Training

A training program shall be provided for all employees who are exposed to action level noise.

The training shall be repeated annually for each employee and updated consistent to changes in PPE and work processes.

RALIN shall make available to affected employees, copies of the noise exposure procedures and shall also post a copy in the workplace.

The employer shall also allow the Assistant Secretary and the Director access to records.

All employees must be trained in the following as it pertains to PPE for the Hearing Conservation Program:

- Hazard assessments;
- Determining type of action required;
- Proper use of PPE;
- Proper maintenance of PPE; and
- Proper inspection of PPE.

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of PPE changes or when the employee demonstrates lack of use, improper use, or insufficient skill or understanding.



Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

35.3.3 Inspection and Maintenance

Prior to every shift and major task beginning, hearing protection will be inspected for serviceability. Defective or damaged PPE shall not be used and shall be removed from service (removed from the project or disposed of properly).

PPE shall be cleaned and maintained according to manufacturer's recommendations.

35.3.4 Medical Evaluation

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

An audiometric testing program shall be established and maintained by making audiometric testing available to all employees whose exposures equal or exceed an 8-hour time-weighted average of 85 decibels.

Within 6 months of an employee's first exposure at or above the action level, a valid baseline audiogram shall be established against which future audiograms can be compared. When a mobile van is used, the baseline shall be established within 1 year.

A baseline hearing evaluation will be required if environmental factors expose employees to an 8-hour time-weighted average of 85 decibels or higher.

Prior to establishment of a baseline audiogram, at least 14 hours without exposure to workplace noise will be observed.

An annual audiogram will be provided to all employees participating in a Hearing Conservation Program.

If a standard threshold shift has occurred the employee will be notified in writing within 21 days of determination.

If a standard threshold shift (STS) occurs, use of hearing protection shall be re-evaluated and/or refitted. If necessary, a medical evaluation may be required and work assignment altered.

In all cases where sound levels exceed the values shown in Table D-2 of the Safety and Health Standards, a continuing, effective hearing conservation program shall be administered. [1926.52(d)(1)]



Table D-2 Permissible Noise Exposures

Duration Per Day, Hours	Sound Level DBA Slow Response
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ or less	115

Accurate records of all employee exposure and audiometric measurements shall be maintained as required by regulatory agencies.

35.3.5 Use

A written job safety analysis (JSA) will be performed to determine potential hazards/ exposures and designate appropriate PPE. A sign/ approved copy must be filed on site.

Protective equipment for ears shall be provided, used, and maintained in a sanitary and reliable condition wherever necessary based on the hazards of processes or environments encountered in the workplace.

Employees will properly fit PPE to the specific individual user. Fitting includes proper donning, doffing, cleaning, and maintenance.

Hearing protection is required where noise is such that a normal conversation cannot be carried out without shouting at a two-foot distance.

When engineering or administrative controls fail to reduce sound levels within the limits of Table D-2, ear protective devices shall be provided and used. [1926.52(b) & 1926.101(a)]

Plain cotton is not an acceptable protective device. [1926.101(c)]

The employer shall evaluate hearing protection for the specific noise environments in which the protection will be used.



Section 36 - SILICA PROTECTION PROGRAM

36.1 Purpose

The purpose of this program is to ensure the protection of all employees from the hazards associated with Respirable Crystalline Silica in accordance with OSHA guidelines.

These guidelines are designed to eliminate/reduce exposure against occupational silica exposure. Engineering and work practice control measures such as wet cutting and/or use of tools with dust collection systems will be used whenever feasible. When engineering controls are not feasible, respiratory protection may be required.

All scopes of work (RALIN or sub-contracted) on a RALIN project will be planned to properly eliminate or minimize Respirable Crystalline Silica through coordination and approval by the RALIN project management team designated to oversee the corresponding project.

This section applies to all occupational exposures to respirable crystalline silica in construction work, except where employee exposure will remain below 25 micrograms per cubic meter of air ($25 \mu\text{g}/\text{m}^3$) as an 8-hour time-weighted average (TWA) under any foreseeable conditions.

36.2 Goal

The goal of this program is to ensure that employees reduce respirable crystalline silica exposures to personnel to levels below OSHA's assigned action level and permissible exposure limit (PEL) within all employee occupational breathing zones.

36.3 Policy

No RALIN employee shall enter any area potentially contaminated with a silica hazard.

36.3.1 Definitions

Action Level means a concentration of airborne respirable crystalline silica of $25 \mu\text{g}/\text{m}^3$, calculated as an 8-hour TWA.

Assigned Protective Factor (APF) means the protection factor assigned to a respirator in accordance with the National Institute for Occupational Safety and Health (NIOSH).

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Director means the Director of the NIOSH, U.S. Department of Health and Human Services, or designee.

Don/ Doff means to properly put on or take off personal protective equipment (e.g. respirators, safety goggles, etc.).

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. The competent person must have the knowledge and ability necessary to fulfill the responsibilities set forth in paragraph (g) of this section.

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.

Indoor(s) means any area with at least one vertical or overhead barrier (e.g. concrete, steel decking, plywood, cmu, dirt, etc.) within 100 feet in any direction (360 degrees and overhead).

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 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.

Outdoor(s) means any area with no vertical or overhead barriers (e.g. concrete, steel decking, plywood, cmu, dirt, etc.) on any side within 100 feet in any direction (360 degrees and overhead).

Permissible Exposure Limit (PEL) means in excess of 50 µg/m³, 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 paragraph (h) of this section.

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. µg means microgram.

Vertical Barrier means a partition-type barrier (e.g. concrete, steel decking, plywood, cmu, dirt, etc.) at least 3 feet in height (relative to the lowest elevation in the work area)

Visible Airborne Dust(s) means any particulate that is observed suspended in the atmosphere/ air under any light condition for any amount of time.

Common Sources

Common sources of respirable crystalline silica include sand, stone, rock, concrete, brick, block, mortar, asphalt, drywall, soil, abrasive blasting agents, granite, and most other types of rock.

36.3.2 Roles and Responsibility

36.3.2.1 Corporate Safety Manager

- Develop and continuously improve policy and procedures regarding Respirable Crystalline Silica.
- Provide guidance and training to all personnel involving work processes where exposures to respirable crystalline silica is probable.
- Support and enforce RALIN policy regarding respirable crystalline silica.
- Remain educated in most current regulatory requirements regarding respirable crystalline silica.



- Administer RALIN's respirator program to personnel required to be protected using respirators in their work duties.
- Provide guidance on the most appropriate product selection for equipment, PPE, and engineered systems to address scopes of work involving respirable crystalline silica.

36.3.2.2 Project Management

- Includes senior project managers, project managers, assistant project managers.
- Attend training regarding respirable crystalline silica.
- Support and enforce RALIN policy regarding respirable crystalline silica.
- Support and enforce scheduling of personnel for respirator program requirements and respirable crystalline silica training programs.
- Verify that all trades performing work where workers are exposed to respirable crystalline silica train personnel in accordance with OSHA's respirable crystalline silica training requirements, administer an appropriate respirator program, and plan work to minimize exposures to all personnel.
- Verify that all trades performing work where workers are exposed to respirable crystalline silica provide current proof of a written exposure control plan and respirator program.
- Communicate the need for retraining or improvement to the corporate safety manager.

36.3.2.3 Superintendent

- Includes superintendents and assistant superintendents.
- Attend training regarding respirable crystalline silica.
- Support and enforce RALIN policy regarding respirable crystalline silica.
- Support and enforce scheduling of personnel for respirator program requirements and respirable crystalline silica training programs.
- Verify that all trades performing work where workers are exposed to respirable crystalline silica actively work to minimize exposures to all personnel.
- Communicate the need for retraining or improvement to the corporate safety manager.

36.3.2.4 Trades

- Includes any trade and any sub-tier of a trade's work force.
- Support and enforce RALIN policy regarding respirable crystalline silica.
- Provide current proof of a written exposure control plan and respirator program to the onsite RALIN project team.



- Train sub-contracted employees in accordance with OSHA's respirable crystalline silica training requirements and administer an appropriate respirator program.
- Ensure sub-contracted employees performing work where workers are exposed to respirable crystalline silica actively work to minimize exposures to all personnel.

36.3.2.5 All Other Field Personnel

- Includes laborers, carpenters, and foremen.
- Attend training regarding respirable crystalline silica.
- Support and enforce RALIN policy regarding respirable crystalline silica.
- Communicate the need for retraining or improvement to the corporate safety manager.

36.3.3 Exposure Control Plan 36.3.3.1 Task

Descriptions

[Reference 29 CFR 1926.1153\(g\)\(1\)\(i\)](#) A description of the tasks in the workplace that involve exposure to respirable crystalline silica.

The following list includes the most frequent tasks to expect an exposure to respirable crystalline silica on RALIN projects:

Concrete Demolition	Masonry Demolition	Demolition Activities
Concrete Mixing	Grout/ Mortar Mixing	Rock/Stone Blasting/ Drilling
Concrete Cutting/ Drilling	Masonry Cutting/ Drilling	Housekeeping Activities
Concrete Control Joint Cuts	Abrasive Blasting	Drywall (1% or > Silica) Install
Grading/Excavation	Asphalt Demolition	Asphalt Cutting/ Drilling

A more comprehensive list follows:

Material: Asphalt; Task: Cutting/sawing
Material: Asphalt; Task: Demolishing/disturbing
Material: Asphalt; Task: Earthmoving
Material: Asphalt; Task: Jackhammering
Material: Asphalt; Task: Sweeping/cleaning up
Material: Brick; Task: Abrasive blasting
Material: Brick; Task: Cutting/sawing
Material: Brick; Task: Demolishing/disturbing
Material: Brick; Task: Drilling/coring
Material: Brick; Task: Jackhammering
Material: Brick; Task: Sacking/patching
Material: Brick; Task: Sanding
Material: Brick; Task: Scabbling
Material: Brick; Task: Scarifying
Material: Brick; Task: Scraping

Material: Brick; Task: Sweeping/cleaning up
Material: Cement; Task: Abrasive blasting
Material: Cement; Task: Cutting/sawing
Material: Cement; Task: Demolishing/disturbing
Material: Cement; Task: Drilling/coring
Material: Cement; Task: Earthmoving
Material: Cement; Task: Grinding
Material: Cement; Task: Jackhammering
Material: Cement; Task: Milling
Material: Cement; Task: Mixing/pouring
Material: Cement; Task: Polishing
Material: Cement; Task: Sacking/patching
Material: Cement; Task: Sanding
Material: Cement; Task: Scabbling
Material: Cement; Task: Scarifying
Material: Cement; Task: Scraping
Material: Cement; Task: Sweeping/cleaning up
Material: Concrete; Task: Abrasive blasting
Material: Concrete; Task: Cutting/sawing
Material: Concrete; Task: Demolishing/disturbing
Material: Concrete; Task: Drilling/coring
Material: Concrete; Task: Earthmoving
Material: Concrete; Task: Grinding
Material: Concrete; Task: Jackhammering
Material: Concrete; Task: Milling
Material: Concrete; Task: Mixing/pouring
Material: Concrete; Task: Sacking/patching
Material: Concrete; Task: Sanding
Material: Concrete; Task: Scarifying
Material: Concrete; Task: Scraping
Material: Concrete; Task: Sweeping/cleaning up
Material: Concrete Block; Task: Abrasive blasting
Material: Concrete Block; Task: Cutting/sawing
Material: Concrete Block; Task: Demolishing/disturbing
Material: Concrete Block; Task: Drilling/coring
Material: Concrete Block; Task: Jackhammering
Material: Concrete Block; Task: Sacking/patching
Material: Concrete Block; Task: Sanding
Material: Concrete Block; Task: Scabbling
Material: Concrete Block; Task: Scarifying
Material: Concrete Block; Task: Scraping
Material: Concrete Block; Task: Sweeping/cleaning up
Material: Drywall; Task: Cutting/sawing
Material: Drywall; Task: Demolishing/disturbing
Material: Drywall; Task: Drilling/coring
Material: Drywall; Task: Sacking/patching
Material: Drywall; Task: Sanding



Material: Drywall; Task: Scraping
Material: Drywall; Task: Sweeping/cleaning up
Material: Fiber Cement products; Task: Cutting/sawing
Material: Fiber Cement products; Task: Demolishing/disturbing
Material: Fiber Cement products; Task: Drilling/coring
Material: Fiber Cement products; Task: Sweeping/cleaning up
Material: Grout; Task: Cutting/sawing
Material: Grout; Task: Demolishing/disturbing
Material: Grout; Task: Drilling/coring
Material: Grout; Task: Mixing/pouring
Material: Grout; Task: Sanding
Material: Grout; Task: Scraping
Material: Grout; Task: Sweeping/cleaning up
Material: Mortar; Task: Cutting/sawing
Material: Mortar; Task: Demolishing/disturbing
Material: Mortar; Task: Drilling/coring
Material: Mortar; Task: Mixing/pouring
Material: Mortar; Task: Sanding
Material: Mortar; Task: Scraping
Material: Mortar; Task: Sweeping/cleaning up
Material: Rock; Task: Drilling/coring
Material: Rock; Task: Earthmoving
Material: Rock; Task: Mixing/pouring
Material: Rock; Task: Sweeping/cleaning up
Material: Sand; Task: Earthmoving
Material: Sand; Task: Mixing/pouring
Material: Sand; Task: Sweeping/cleaning up
Material: Soil (fill dirt, topsoil, soil w/ fly ash added); Task: Drilling/coring
Material: Soil (fill dirt, topsoil, soil w/ fly ash added); Task: Earthmoving
Material: Soil (fill dirt, topsoil, soil w/ fly ash added); Task: Mixing/pouring
Material: Soil (fill dirt, topsoil, soil w/ fly ash added); Task: Sweeping/cleaning up
Material: Stone (including granite, limestone, quartzite, sandstone, shale, slate, cultured, etc.); Task:
Abrasive blasting
Material: Stone (including granite, limestone, quartzite, sandstone, shale, slate, cultured, etc.); Task:
Earthmoving
Material: Stone (including granite, limestone, quartzite, sandstone, shale, slate, cultured, etc.); Task:
Mixing/pouring
Material: Stone (including granite, limestone, quartzite, sandstone, shale, slate, cultured, etc.); Task:
Sweeping/cleaning up

36.3.3.2 Engineering Controls, Work Practices, and Respiratory Protection

Reference 29 CFR 1926.1153(g)(1)(ii) A description of the engineering controls, work practices, and respiratory protection used to limit employee exposure to respirable crystalline silica for each task.

ALL workers performing work in tasks/ areas where silica exposures are known to be actively present are required to use the project's personnel decontamination station to remove contaminants from their person prior to departing the project property.



For informational purposes, 29 CFR 1926.1153(c) Table 1 may be found at the following URL:

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=1270

- Abrasive Blasting

No RALIN employees will perform abrasive blasting.

Scopes of work requiring abrasive blasting will be performed in areas designated by and coordinated with the controlling contractor.

No personnel but the sub-contracted “abrasive blasting” personnel will be allowed to enter or work within the area to be addressed to include surrounding impacted areas (e.g. downwind hazard areas).
- Asphalt Cutting/ Drilling

Scopes of work performed for this task will be executed in accordance with 29 CFR 1926.1153(c) Table 1.
- Asphalt Demolition

Scopes of work performed for this task will be executed in accordance with 29 CFR 1926.1153(c) Table 1.
- Concrete/ Grout/ Mortar Mixing

All mixing operations will be performed outdoors. NO INDOOR MIXING STATIONS are allowed.

Any worker within 50 feet of the mixing station’s containment vessel, must wear respiratory protection with a minimum APF of 10. Site specific conditions may dictate a more stringent APF in some cases.

If site property restraints do not allow for outdoor mixing stations, then mixed materials must be delivered to the project site from off property mixing facilities.
- Concrete Control Joint Cuts

Scopes of work performed for this task will be executed in accordance with 29 CFR 1926.1153(c) Table 1.
- Concrete Cutting/ Drilling

Scopes of work performed for this task will be executed in accordance with 29 CFR 1926.1153(c) Table 1.
- Concrete Demolition

Scopes of work performed for this task will be executed in accordance with 29 CFR 1926.1153(c) Table 1.
- Demolition Activities

RALIN expects every occurrence of this type of activity to exceed the OSHA regulatory PEL of 50 µg/m³ due to the random nature of “demolition” operations. RALIN requires all workers within the work area affected (including downwind hazard areas) to don appropriate respiratory protection during active operations.

No personnel will doff respiratory protection within this work area after operations cease until a 30-minute wait time is observed with ventilation remaining operational to allow airborne contaminants to be evacuated from the area.

Per OSHA 29 CFR 1926.1153(c)(2)(i): For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust.

To evacuate air contaminants from the work area, proper ventilation (equipment and setup appropriate for the work area’s air volume) will be purchased and established by the employee’s employer. In areas where more than one trades must operate simultaneously, the controlling contractor will be responsible for coordinating proper ventilation equipment, setup and operation.



- Drywall (>1% Silica) Install Scopes of work involving installation of drywall and drywall compound shall require silica content of <1%.
- Grading/Excavation Scopes of work performed for this task will be executed in accordance with 29 CFR 1926.1153(c) Table 1.
- Housekeeping Activities See *Section 32.3.1.3 Housekeeping* section that follows this section.
- Masonry Cutting/ Drilling Scopes of work performed for this task will be executed in accordance with 29 CFR 1926.1153(c) Table 1.
- Masonry Demolition Scopes of work performed for this task will be executed in accordance with 29 CFR 1926.1153(c) Table 1.
- Rock/Stone Blasting/ Drilling Scopes of work performed for this task will be executed in accordance with 29 CFR 1926.1153(c) Table 1. Assumes no personnel are present during explosive release and do not return to the blast site until dust has settled or migrated into the air column to a distance away from personnel.

A comprehensive list corresponding to section 32.3.3.1 follows:

Material: Asphalt; Task: Cutting/sawing; Equipment and Control(s): 1) Hand-held Masonry Saw with Water (Table 1 Entry), 2) Walk-Behind Saw with Water (Table 1 Entry)

Material: Asphalt; Task: Demolishing/disturbing; Equipment and Control(s): Heavy Equipment with Cab Filtration System (Table 1 Entry)

Material: Asphalt; Task: Earthmoving; Equipment and Control(s): Respiratory Protection

Material: Asphalt; Task: Jackhammering; Equipment and Control(s): Jackhammer with Water (Table 1 Entry)

Material: Asphalt; Task: Sweeping/cleaning up; Equipment and Control(s): Respiratory Protection

Material: Brick; Task: Abrasive blasting; Equipment and Control(s): Respiratory Protection - Abrasive Blasting

Material: Brick; Task: Cutting/sawing; Equipment and Control(s): 1) Hand-Held Masonry Saw with Water (Table 1 Entry), 2) Stationary Masonry Saw with Water (Table 1 Entry)

Material: Brick; Task: Demolishing/disturbing; Equipment and Control(s): Respiratory Protection

Material: Brick; Task: Drilling/coring; Equipment and Control(s): Hand-Held Drill with Vacuum (Table 1 Entry)

Material: Brick; Task: Jackhammering; Equipment and Control(s): Respiratory Protection

Material: Brick; Task: Sacking/patching; Equipment and Control(s): Respiratory Protection

Material: Brick; Task: Sanding; Equipment and Control(s): Respiratory Protection

Material: Brick; Task: Scabbling; Equipment and Control(s): Respiratory Protection

Material: Brick; Task: Scarifying; Equipment and Control(s): Respiratory Protection

Material: Brick; Task: Scraping; Equipment and Control(s): Respiratory Protection

Material: Brick; Task: Sweeping/cleaning up; Equipment and Control(s): Vacuum

Material: Cement; Task: Abrasive blasting; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Cutting/sawing; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Demolishing/disturbing; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Drilling/coring; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Earthmoving; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Grinding; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Jackhammering; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Milling; Equipment and Control(s): Respiratory Protection



Material: Cement; Task: Mixing/pouring; Equipment and Control(s): Bucket Shroud with Vacuum Dust Control

Material: Cement; Task: Polishing; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Sacking/patching; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Sanding; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Scabbling; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Scarifying; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Scraping; Equipment and Control(s): Respiratory Protection

Material: Cement; Task: Sweeping/cleaning up; Equipment and Control(s): 1) Sweeping Compound, 2) Vacuum

Material: Concrete; Task: Abrasive blasting; Equipment and Control(s): 1) Abrasive Blasting System with Water, 2) Respiratory Protection - Abrasive Blasting

Material: Concrete; Task: Cutting/sawing; Equipment and Control(s): 1) Drivable Masonry Saw with Water (Table 1 Entry), 2) Hand-Held Masonry Saw with Water (Table 1 Entry), 3) Walk-Behind Saw with Water (Table 1 Entry)

Material: Concrete; Task: Demolishing/disturbing; Equipment and Control(s): 1) Heavy Equipment with Cab Filtration System (Table 1 Entry), 2) Hydraulic Breaker

Material: Concrete; Task: Drilling/coring; Equipment and Control(s): 1) Core Drill with Water (Table 1 Entry), 2) Drill Press with Hand-Held Drill and Vacuum (Table 1 Entry), 3) Hand-Held Drill with Vacuum (Table 1 Entry)

Material: Concrete; Task: Earthmoving; Equipment and Control(s): Respiratory Protection

Material: Concrete; Task: Grinding; Equipment and Control(s): 1) Hand-Held Angle Grinder with Vacuum (Table 1 Entry), 2) Hand-Held Grinder with Vacuum (Table 1 Entry), 3) Walk-Behind Grinder with Vacuum (Table 1 Entry)

Material: Concrete; Task: Jackhammering; Equipment and Control(s): Jackhammer with Water (Table 1 Entry)

Material: Concrete; Task: Milling; Equipment and Control(s): Highway Milling Machine with Water (Table 1 Entry)

Material: Concrete; Task: Mixing/pouring; Equipment and Control(s): Respiratory Protection

Material: Concrete; Task: Sacking/patching; Equipment and Control(s): Respiratory Protection

Material: Concrete; Task: Sanding; Equipment and Control(s): Respiratory Protection

Material: Concrete; Task: Scarifying; Equipment and Control(s): Walk-Behind Scarifier with Water (Table 1 Entry)

Material: Concrete; Task: Scraping; Equipment and Control(s): Respiratory Protection

Material: Concrete; Task: Sweeping/cleaning up; Equipment and Control(s): 1) Sweeping Compound, 2) Vacuum, 3) Water - Wet Surface

Material: Concrete Block; Task: Abrasive blasting; Equipment and Control(s): 1) Abrasive Blasting System with Water, 2) Respiratory Protection - Abrasive Blasting

Material: Concrete Block; Task: Cutting/sawing; Equipment and Control(s): 1) Hand-Held Masonry Saw with Water (Table 1 Entry), 2) Stationary Masonry Saw with Water (Table 1 Entry)

Material: Concrete Block; Task: Demolishing/disturbing; Equipment and Control(s): Respiratory Protection

Material: Concrete Block; Task: Drilling/coring; Equipment and Control(s): 1) Core Drill with Water (Table 1 Entry), 2) Hand-Held Drill with Vacuum (Table 1 Entry)

Material: Concrete Block; Task: Jackhammering; Equipment and Control(s): 1) Jackhammer with Vacuum (Table 1 Entry), 2) Jackhammer with Water (Table 1 Entry)

Material: Concrete Block; Task: Sacking/patching; Equipment and Control(s): Respiratory Protection



Material: Concrete Block; Task: Sanding; Equipment and Control(s): Respiratory Protection
Material: Concrete Block; Task: Scabbling; Equipment and Control(s): Respiratory Protection
Material: Concrete Block; Task: Scarifying; Equipment and Control(s): Respiratory Protection
Material: Concrete Block; Task: Scraping; Equipment and Control(s): Respiratory Protection
Material: Concrete Block; Task: Sweeping/cleaning up; Equipment and Control(s): 1) Sweeping Compound, 2) Vacuum, 3) Water - Wet Surface
Material: Drywall; Task: Cutting/sawing; Equipment and Control(s): Respiratory Protection
Material: Drywall; Task: Demolishing/disturbing; Equipment and Control(s): Respiratory Protection
Material: Drywall; Task: Drilling/coring; Equipment and Control(s): Respiratory Protection
Material: Drywall; Task: Sacking/patching; Equipment and Control(s): Respiratory Protection
Material: Drywall; Task: Sanding; Equipment and Control(s): 1) Hand Sander with Vacuum, 2) Low-Dust Drywall Joint Compound, 3) Pole Sander with Vacuum
Material: Drywall; Task: Scraping; Equipment and Control(s): Respiratory Protection
Material: Drywall; Task: Sweeping/cleaning up; Equipment and Control(s): 1) Sweeping Compound, 2) Vacuum
Material: Fiber Cement products; Task: Cutting/sawing; Equipment and Control(s): Circular Saw with Dust Collection (Table 1 Entry)
Material: Fiber Cement products; Task: Demolishing/disturbing; Equipment and Control(s): Respiratory Protection
Material: Fiber Cement products; Task: Drilling/coring; Equipment and Control(s): Respiratory Protection
Material: Fiber Cement products; Task: Sweeping/cleaning up; Equipment and Control(s): 1) Sweeping Compound, 2) Vacuum
Material: Grout; Task: Cutting/sawing; Equipment and Control(s): Tuckpointing Grinder with Vacuum (Table 1 Entry)
Material: Grout; Task: Demolishing/disturbing; Equipment and Control(s): Respiratory Protection
Material: Grout; Task: Drilling/coring; Equipment and Control(s): Respiratory Protection
Material: Grout; Task: Mixing/pouring; Equipment and Control(s): Portable Mixing Station
Material: Grout; Task: Sanding; Equipment and Control(s): Respiratory Protection
Material: Grout; Task: Scraping; Equipment and Control(s): Respiratory Protection
Material: Grout; Task: Sweeping/cleaning up; Equipment and Control(s): Respiratory Protection
Material: Mortar; Task: Cutting/sawing; Equipment and Control(s): Tuckpointing Grinder with Vacuum (Table 1 Entry)
Material: Mortar; Task: Demolishing/disturbing; Equipment and Control(s): Respiratory Protection
Material: Mortar; Task: Drilling/coring; Equipment and Control(s): Respiratory Protection
Material: Mortar; Task: Mixing/pouring; Equipment and Control(s): 1) Bucket Shroud with Vacuum Dust Control, 2) Portable Mixing Station
Material: Mortar; Task: Sanding; Equipment and Control(s): Respiratory Protection
Material: Mortar; Task: Scraping; Equipment and Control(s): Respiratory Protection
Material: Mortar; Task: Sweeping/cleaning up; Equipment and Control(s): 1) Sweeping Compound, 2) Vacuum, 3) Water - Wet Surface
Material: Rock; Task: Drilling/coring; Equipment and Control(s): Heavy Equipment with Cab Filtration System (Table 1 Entry)
Material: Rock; Task: Earthmoving; Equipment and Control(s): Respiratory Protection
Material: Rock; Task: Mixing/pouring; Equipment and Control(s): Respiratory Protection
Material: Rock; Task: Sweeping/cleaning up; Equipment and Control(s): 1) Sweeping Compound, 2) Vacuum, 3) Water - Wet Surface
Material: Sand; Task: Earthmoving; Equipment and Control(s): Respiratory Protection



Material: Sand; Task: Mixing/pouring; Equipment and Control(s): Respiratory Protection
Material: Sand; Task: Sweeping/cleaning up; Equipment and Control(s): 1) Sweeping Compound, 2) Vacuum
Material: Soil (fill dirt, topsoil, soil w/ fly ash added); Task: Drilling/coring; Equipment and Control(s): Respiratory Protection
Material: Soil (fill dirt, topsoil, soil w/ fly ash added); Task: Earthmoving; Equipment and Control(s): Heavy Equipment with Cab Filtration System (Table 1 Entry)
Material: Soil (fill dirt, topsoil, soil w/ fly ash added); Task: Mixing/pouring; Equipment and Control(s): Respiratory Protection
Material: Soil (fill dirt, topsoil, soil w/ fly ash added); Task: Sweeping/cleaning up; Equipment and Control(s): Respiratory Protection
Material: Stone (including granite, limestone, quartzite, sandstone, shale, slate, cultured, etc.); Task: Abrasive blasting; Equipment and Control(s): 1) Abrasive Blasting System with Water, 2) Respiratory Protection - Abrasive Blasting
Material: Stone (including granite, limestone, quartzite, sandstone, shale, slate, cultured, etc.); Task: Earthmoving; Equipment and Control(s): Respiratory Protection
Material: Stone (including granite, limestone, quartzite, sandstone, shale, slate, cultured, etc.); Task: Mixing/pouring; Equipment and Control(s): Respiratory Protection
Material: Stone (including granite, limestone, quartzite, sandstone, shale, slate, cultured, etc.); Task: Sweeping/cleaning up; Equipment and Control(s): 1) Sweeping Compound, 2) Vacuum

36.3.3.3 Housekeeping

[Reference 29 CFR.1153\(g\)\(1\)\(iii\)](#) A description of the housekeeping measures used to limit employee exposure to respirable crystalline silica.

All of the following conditions will likely exist in some combination and simultaneously in a work area. All conditions must be evaluated, and employees protected for the most serious exposure present during active operations.

No dry sweeping or dry brushing is allowed 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.

Using sweeping compounds (e.g. non-grit, oil- or waxed-based) is an acceptable dust suppression housekeeping method.

Bulk Debris Clean-Up

Bulk debris clean-up refers to conditions where heavy equipment is required to manipulate, move, remove and/or dispose of silica containing materials.

RALIN expects every occurrence of bulk debris clean-up activity to exceed the OSHA regulatory PEL of 50 $\mu\text{g}/\text{m}^3$ due to the random nature of “demolition” operations. RALIN requires all unprotected workers within the work area affected (including downwind hazard areas) to don appropriate respiratory protection during active operations.

Refer to 29 CFR 1926.1153(c) Table 1 for other specific requirements under this condition.

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.

Bulk debris clean-up shall be accomplished using heavy equipment/ machinery meeting 29 CFR 1926.1153(c) requirements.

Prior to, and during active, outdoor (and when possible for indoor operations) bulk debris clean-up, all silica containing materials will be soaked with an appropriate amount of water to prevent ANY visible airborne dust from being released into the atmosphere/ air.

For indoor bulk debris clean-up, all personnel will wear one of the following respirators per each employee's preference: APF 10 respirators with full goggled eye protection or APF 25 respirators.

For indoor bulk debris clean-up and per OSHA 29 CFR 1926.1153(c)(2)(i): For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dusts.

For indoor bulk debris clean-up, no personnel will doff respiratory protection within this work area after operations cease until a 30-minute wait time is observed with ventilation remaining operational to allow airborne contaminants to be evacuated from the area.

For indoor bulk debris clean-up and to evacuate air contaminants from the work area, proper ventilation (equipment and setup appropriate for the work area's air volume) will be purchased and established by the employee's employer. In areas where more than one trades must operate simultaneously, the controlling contractor will be responsible for coordinating proper ventilation equipment, setup and operation.

Gross Debris Clean-Up

"Gross debris clean-up" refers to conditions where heavy equipment/ machinery is not a viable option so large hand tools (e.g. snow shovel) or hand removals of debris are necessary to move, remove and/or dispose of silica containing materials and a HEPA filtrated vacuum's hose diameter cannot accommodate the size of debris to be removed.

For gross debris clean-up activity, site specific conditions must be evaluated through an exposure assessment (see "[Exposure Assessment](#)" in this EHS Program) to determine if the OSHA regulatory action level of 25 $\mu\text{g}/\text{m}^3$ or PEL of 50 $\mu\text{g}/\text{m}^3$ are factors requiring proper PPE for personnel. If PPE is required, RALIN requires all workers within the work area affected (including downwind hazard areas) to don appropriate respiratory protection during active operations.

Prior to, and during active, outdoor (and when possible for indoor operations) gross debris clean-up, all silica containing materials will be soaked with an appropriate amount of water to prevent ANY visible airborne dust from being released into the atmosphere/ air.

For indoor gross debris clean-up, all personnel will wear one of the following respirators per each employee's preference: APF 10 respirators with full goggled eye protection or APF 25 respirators.

For indoor gross debris clean-up and per OSHA 29 CFR 1926.1153(c)(2)(i): For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dusts.

For indoor gross debris clean-up, no personnel will doff respiratory protection within this work area after operations cease until a 30-minute wait time is observed with ventilation remaining operational to allow airborne contaminants to be evacuated from the area.



For indoor gross debris clean-up and to evacuate air contaminants from the work area, proper ventilation (equipment and setup appropriate for the work area's air volume) will be purchased and established by the employee's employer.

In areas where more than one trades must operate simultaneously, the controlling contractor will be responsible for coordinating proper ventilation equipment, setup and operation.

Other Than Gross Debris Clean-Up

"Other than gross debris clean-up" refers to remaining debris and residue not qualified as "bulk" or "gross" debris and can be addressed with a HEPA vacuum or water rinse.

For other than gross debris clean-up activity, site specific conditions must be evaluated through an exposure assessment (see "Exposure Assessment" in section 32) to determine if the OSHA regulatory action level of 25 $\mu\text{g}/\text{m}^3$ or PEL of 50 $\mu\text{g}/\text{m}^3$ are factors requiring proper PPE for personnel. If PPE is required, RALIN requires all workers within the work area affected (including downwind hazard areas) to don appropriate respiratory protection during active operations.

For outdoor other than gross debris clean-up, personnel may wear an APF 10 respirator at their discretion unless conditions or supervision dictate otherwise.

For indoor other than gross debris clean-up, all personnel will wear an APF 10 respirator at a minimum unless conditions or supervision dictate otherwise.

For indoor other than gross debris clean-up and per OSHA 29 CFR 1926.1153(c)(2)(i): For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dusts.

If a water rinse method of removal is utilized, then water must be directed into a collection location that is either not expected to be disturbed after deposit for perpetuity or will be undisturbed until covered with topsoil or material layers that prevent further particle suspension into the atmosphere.

For indoor other than gross debris clean-up, if respiratory protection is worn, then no personnel will doff respiratory protection within this work area after operations cease until a 30-minute wait time is observed with ventilation remaining operational to allow airborne contaminants to be evacuated from the area.

For indoor other than gross debris clean-up and to evacuate air contaminants from the work area, proper ventilation (equipment and setup appropriate for the work area's air volume) will be purchased and established by the employee's employer. In areas where more than one trades must operate simultaneously, the controlling contractor will be responsible for coordinating proper ventilation equipment, setup and operation.

Decontamination Station

Every RALIN project where a silica exposure is present will be evaluated for the appropriate decontamination methods to be used for onsite personnel. Once an evaluation is completed, and prior to activities involving silica exposures beginning, decontamination stations will be established for personnel use.

All personnel with exposure to project generated silica will sanitize themselves, their equipment, tools, and their attire by using the sanitization station's project specific cleaning methods to remove residual silica and reduce offsite transfer.

No compressed air shall be used to clean clothing or surfaces where the 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.



As a general practice, personnel that are required to process through a decontamination station shall don a respirator with an APF 10 NIOSH rating prior to entering the station.

The respirator worn during decontamination will remain on until the personnel are completely clean and exit the station.

A HEPA vacuum properly maintained and operational with a filter that is at least 99.97 percent efficient in removing monodispersed particles of 0.3 micrometers in diameter may only be used for decontamination purposes.

Alternative decontamination (such as compressed air) are authorized but only with an engineered ventilation system that effectively captures the dust cloud.

OSHA Standard 29 CFR 1910.242(b) requires that compressed air used for cleaning purposes must be reduced to less than 30 psig (pounds per square inch gauge, 204 kPa) and that compressed air used for cleaning must only be permitted with effective chip guarding and personal protective equipment to protect the operator and other employees from the hazards of the release of compressed air and flying debris.

36.3.3.4 Disposal of Silica Containing Material(s)

All operations for final disposal of silica containing materials will require the same PPE protective posture as required in the previous "Housekeeping" section of this EHS Program.

Onsite Silica Containing Material Waste Containers

Containers such as dump trucks, roll-offs, trash cans, bagging methods must be able to be sealed as close to air tight as is reasonable to prevent local air movement (e.g. interior ventilation, vehicle/equipment traffic, wind, etc.) from dislodging silica particulate from the final transport disposal container during transport to final disposal.

Bulk Debris Clean-Up Materials

Dispose of this type of material into a covered dump truck or roll-off or into a final onsite location that has a high probability of never being disturbed again other than by natural environmental processes (e.g. wind, rain, erosion, etc.).

If materials are deposited onsite for final disposition, then take precautions to either flush and soak with water to wash fine and loose particulate into crevices, cracks and/or depressions or to bury materials to prevent local air movement (e.g. vehicle/equipment traffic, wind, etc.) from dislodging silica particulate from the final location.

If materials will be transported off the site, then transport to offsite locations via a qualified waste disposal service provider.

Water Rinsed Materials

If a water rinse method of removal is utilized, then water must be directed into a collection location that is either not expected to be disturbed after deposit for perpetuity or will be undisturbed until covered with topsoil or latered material that prevent further particle suspension into the atmosphere.

After the moisture within the known initial water rinse final deposit location has evaporated, any further disturbance must be thoroughly soaked prior to relocation or manipulation.

If materials are deposited onsite for final disposition, then take precautions to either flush and soak with water to wash fine and loose particulate into crevices, cracks and/or depressions or to bury materials to prevent local air movement (e.g. vehicle/equipment traffic, wind, etc.) from dislodging silica particulate from the final location.



If materials will be transported off the site, then transport to offsite locations via a qualified waste disposal service provider.

Gross Debris Clean-Up Materials

Dispose of these types of materials into appropriately sized disposal containers to properly prevent or limit any airborne release. Transport to offsite locations via a qualified waste disposal service provider.

Other Than Gross Debris Clean-Up Materials

Dispose of these types of materials into appropriately sized disposal containers to properly prevent or limit any airborne release. Transport to offsite locations via a qualified waste disposal service provider.

HEPA Collected Materials

Dispose of these types of materials into appropriately sized disposal containers to properly prevent or limit any airborne release. Transport to offsite locations via a qualified waste disposal service provider.

36.3.3.5 Work Area Access

Reference 29 CFR 1926.1153(g)(1)(iv) 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.

Construction projects are a dynamic environment. Every scope of work and/or task involving potential silica exposures shall be evaluated to determine if access to the area must be restricted 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.

“Silica” area means an area where an actual or potential threat of respirable crystalline silica employee exposure exist.

At all times, any public (non-RALIN personnel) exposure shall be considered to prevent any exposure outside of project construction limits.

The moment any worker realizes that another worker is unprotected and may be exposed to unacceptable levels of respirable crystalline silica, then all silica particulate producing operations shall be halted immediately.

Operations may resume when the condition is corrected.

On structures where silica particulate may migrate to another work elevation (e.g. floor below or above, basement), then controls shall be established to prevent personnel exposures in those areas.

Procedures to restrict access:

- Integrate a section to briefly educate workers on methods of demarcating restricted “silica” areas and site wide expectations into the current site-specific orientation.
- Conduct site wide meetings to inform personnel of new, changing or existing operations and expectations where “silica” areas are established as often as is necessary.
- On at least a daily basis, when work that may expose employees to a silica exposure is recognized or ongoing, then conduct a meeting with all onsite foremen/supervisors and a RALIN project management member or superintendent to disseminate the rules and conditions for the day.



- Crews responsible for silica related work will cordon off areas where a structure does not exist to serve as a barricade to prevent entry with red “DANGER” tape (installed to remain at least 36” off the elevation surface it crosses).
- Crews will coordinate with RALIN site project management or superintendent daily to determine downwind hazard areas to cordon off via red “DANGER” tape (installed to remain at least 36” off the elevation surface it crosses) or physical barriers to prevent access.
- In addition to any instance of “DANGER” tape placed to notify personnel of a silica hazard, signage informing explicitly of a “Danger... silica” hazard shall be posted at entrances/exits and/ or every 50 linear feet where personnel are not prevented physically from entering the area by means of a barrier, structure, door, etc. An acceptable sign example can be found at the following URL: https://www.safetycal.com/store/safety signs and labels/silica-hazard signs?gclid=CLXn7_2U2tYCFUhYDQodBJUGDg.
- Where unfiltered ventilation is exhausted, the exhaust area shall be restricted according to equipment’s air flow velocity limitations and downwind hazard limits.

36.3.3.6 Annual Written Exposure Control Plan Review

Reference 29 CFR 1926.1153(g)(2) The employer shall review and evaluate the effectiveness of the written exposure control plan at least annually and update it as necessary.

The annual review of RALIN’s written Exposure Control Plan will be performed in conjunction with the annual review of RALIN’s EHS Program. The review date is defined in Section 1 of this EHS Program.

36.3.3.7 Employee Availability

Reference 29 CFR.1153(g)(3) The employer shall make the written exposure control plan readily available for examination and copying, upon request, to each employee covered by this section, their designated representatives, the Assistant Secretary and the Director.

All RALIN and sub-contracted personnel will have access to this written Exposure Control Plan on RALIN’s website at the following URL: <http://ra-lin.com/about/safety/>.

36.3.3.8 Competent Person(s)

Reference 29 CFR 1926.1153(g)(4) The employer shall designate a competent person to make frequent and regular inspections of job sites, materials, and equipment to implement the written exposure control plan.

RALIN’s “competent person(s)” shall always have the authority to indefinitely stop, evaluate and redirect any work activities on a RALIN project. RALIN’s “competent person(s)” will include all the following personnel to implement the written exposure control plan through frequent and regular inspections of job sites, materials, and equipment:

- Corporate Safety Manager
- Field Safety Manager
- Project Manager
- Superintendent



36.3.4 Training

Training will ensure that each employee covered by this section can demonstrate knowledge and understanding of at least the following:

- The health hazards associated with exposure to respirable crystalline silica;
- The following specific hazards: cancer, lung effects, immune system effects, and kidney effects;
- Specific tasks in the workplace that could result in exposure to respirable crystalline silica;
- Specific measures the employer has implemented to protect employees from exposure to respirable crystalline silica, including engineering controls, work practices, and respirators to be used;
- The contents of this section;
- The identity of the competent person designated by the employer in accordance with 29 CFR 1926.1153(g)(4); and
- The purpose and a description of the medical surveillance program required by 29 CFR 1926.1153(h).

Each employee covered by this section shall have a copy of this section readily available at no cost.

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of PPE changes or when the employee demonstrates lack of use, improper use, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

36.3.5 Procedures

36.3.5.1 Pre-Construction Actions

RALIN does not allow the use of any compound used for abrasive cleaning or drywall products that contain 1% silica or greater. Employee sampling must be conducted to verify that concentrations released from the media being finished does not exceed allowable OSHA PEL's.

If PPE is required, refer to RALIN Respiratory Protection Program (and 29 CFR 1926.1153 and 29 CFR 1910.134) for specific guidelines.

Verify that all trades performing work where workers are exposed to respirable crystalline silica provide current proof of a written exposure control plan and respirator program.

36.3.5.2 Initial Project Mobilization

In order to determine whether a product contains silica, the Safety Data Sheet must be obtained and evaluated.

Verify that all trades performing work where workers are exposed to respirable crystalline silica train personnel in accordance with OSHA's respirable crystalline silica training requirements, administer an appropriate respirator program, and plan work to minimize exposures to all personnel.



All trades are to supply any exposure monitoring, testing, or engineering information regarding silica exposure in their operations prior to beginning work. An example may be the masonry contractor using brick / block saws and associated experience data that the trade has obtained.

36.3.5.3 Active Operations

Ensure sub-contracted employees performing work where workers are exposed to respirable crystalline silica actively work to minimize exposures to all personnel.

Always wet the dry materials and surfaces before cutting, chipping, grinding, sanding, sweeping or cleaning. This engineering control shall be used to the greatest extent feasible, so that airborne concentrations of silica are < 25 µg/m³.

For tasks performed using wet methods, apply water at flow rates enough to minimize release of visible dust. Enough flow shall be a solid flow of water with a diameter that is 3 times the width of the point of operation's tool (saw blade, drill bit, etc.) width.

When using water on a rotating blade (circular or band) operations, the strike point of the water shall be directed one (1) inch prior to the blades first entry direction.

When using water on jackhammer/ coring/ drilling operations, the strike point of the water shall be directly on the point of impact.

When a product cannot be designed out of the process, then engineering controls must be considered as a primary means to eliminate the hazard, whenever feasible.

An exposure assessment must be conducted in order to confirm that engineering and administrative controls in place are effective and whether personal protective equipment (PPE) is required or not.

After working with products that contain silica, everyone will be required to thoroughly wash their hands before eating, drinking or smoking. Eating, drinking or smoking near silica or in silica-regulated areas is strictly prohibited.

The site-specific safety orientation shall briefly educate workers on methods of demarcating restricted "silica" areas, site wide expectations for exposure, and the hazards associated with silica exposure.

Use power tools with built-in high-efficient particulate air (HEPA) dust extraction units/ shrouds to capture dust before it is released into the exhausted air.

For abrasive blasting, replace silica sand with less toxic materials. The National Institute for Occupational Safety and Health highly discourages the use of sand or any abrasive with more than 1% crystalline silica in it. As an alternative, garnet, slag and steel grit and shot may be suitable substitutes.

36.3.5.4 Alternative Exposure Control Methods

For tasks not listed in Table 1, or where the employer does not fully and properly implement the engineering controls, work practices, and respiratory protection described in Table 1, the employer shall ensure that no employee is exposed to an airborne concentration of respirable crystalline silica in excess of the PEL (50 µg/m³), calculated as an 8hour TWA.

36.3.5.5 Exposure Assessment

RALIN or the employer shall 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 in 29 CFR 1926.1153 (d)(2)(ii) or the scheduled monitoring option in 29 CFR 1926.1153 (d)(2)(iii) of this section.



Performance Option [29 CFR 1926.1153 (d)(2)(ii)]

The employer shall assess the 8-hour TWA exposure for each employee based on any combination of air monitoring data or objective data sufficient to accurately characterize employee exposures to respirable crystalline silica.

Scheduled Monitoring Option [29 CFR 1926.1153 (d)(2)(iii)]

The employer shall perform initial monitoring to assess the 8-hour TWA exposure for each employee based on one or more personal breathing zone air samples that reflect the exposures of employees on each shift, for each job classification, in each work area. Where several employees perform the same tasks on the same shift and in the same work area, the employer may sample a representative fraction of these employees in order to meet this requirement. In representative sampling, the employer shall 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, the employer may 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, the employer shall 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, the employer shall repeat such monitoring within three months of the most recent monitoring.

Where the most recent (noninitial) exposure monitoring indicates that employee exposures are below the action level, the employer shall 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 the employer may discontinue monitoring for those employees whose exposures are represented by such monitoring, except as otherwise provided in paragraph 29 CFR 1926.1153 (d)(2)(iv) of this section.

Reassessment of exposures. The employer shall 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 the employer has any reason to believe that new or additional exposures at or above the action level have occurred.

Methods of sample analysis. The employer shall ensure that all samples taken to satisfy the monitoring requirements of paragraph 29 CFR 1926.1153 (d)(2) of this section are evaluated by a laboratory that analyzes air samples for respirable crystalline silica in accordance with the procedures in Appendix A to this section.

Employee Notification of Assessment Results

Within five working days after completing an exposure assessment in accordance with paragraph 29 CFR 1926.1153 (d)(2) of this section, the employer shall 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, the employer shall describe in the written notification the corrective action being taken to reduce employee exposure to or below the PEL.

Observation of Monitoring

Where air monitoring is performed to comply with the requirements of this section, the employer shall 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, the employer shall provide the observer with protective clothing and equipment at no cost and shall ensure that the observer uses such clothing and equipment.

36.3.5.6 Respirators

Respirators will be provided to each employee affected by this program and administered in accordance with 29 CFR 1926.1153 and 29 CFR 1910.134.

Respiratory protection is required for tasks not listed in Table 1, or where the employer does not fully and properly implement the engineering controls, work practices, and respiratory protection described in Table 1:

- 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 enough to reduce exposures to or below the PEL.

Tracking Employee Respirator Use

Where an employee performs more than one task on Table 1 during 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.

36.3.5.7 Medical Surveillance

All medical surveillance will be implemented in accordance with 29 CFR 1926.1153(h).

Medical surveillance will be made available to all RALIN employees required under this section to use a respirator for 30 or more days per year at no cost, and at a reasonable time and place.

From OSHA's Final Rule: "OSHA clarifies that if an employee is required to wear a respirator at any time during a given day, whether to comply with the specified exposure control methods in paragraph (c) or to limit exposure to the PEL under the construction standard for respirable crystalline silica, that day counts toward the 30-day threshold."

36.3.5.8 Non-RALIN Personnel

Non-RALIN personnel shall comply with 29 CFR 1926.1153 on all RALIN projects.

Trade personnel subject to 29 CFR 1926.1153 shall provide a copy of the written exposure control plan applicable to the specific company employing the onsite subcontracted personnel.

Trade personnel subject to 29 CFR 1926.1153 shall provide a copy of the written respirator program applicable to the specific company employing the onsite subcontracted personnel.



Section 37 - RESPIRATORY PROTECTION PROGRAM

37.1 Purpose

The purpose of this program is to ensure the protection of all employees from respiratory hazards through proper use of respirators. Respirators are to be used only where engineering control of respirator hazards is not feasible, while engineering controls are being installed, or in emergencies.

These guidelines are designed to eliminate/reduce exposure against occupational air contaminant exposure. Engineering and work practice control measures such as wet cutting and/or use of tools with dust collection systems will be used whenever feasible. When engineering controls are not feasible, respiratory protection may be required. In these situations, respiratory protection, training, and medical evaluations will be necessary for the employees.

The Respiratory Protection Program is intended to address respirators only. This program will not address procedures for confined space work and the procedures involved with confined spaces as they are addressed in the Confined Spaces section of this RALIN EHS Program.

Consider respirator program specifics relative to protections provided by other standards (e.g., 1926.1153 Respirable Crystalline Silica) that may require additional criteria such as medical surveillance, B-Reader qualified PLHCPs, and periodic examinations.

37.2 Goal

The goal of this program is to ensure that employees eliminate potential breathing hazards through proper workplace assessments and, if required, respirators. Appropriate surveillance of work area conditions and degree of employee exposure or stress will be maintained.

37.3 Policy

RALIN employees shall be afforded the option of entering the respirator program with all the required evaluations, etc.

any time they identify the desire to do so.

37.3.1 Roles and Responsibility

RALIN employees are not authorized to perform work in atmospheres immediately dangerous to life and health (IDLH).

Employees required to work under a respiratory protection program will be provided respirators and any other cost elements involved with such a program at no cost to the employee.

Respiratory equipment will be provided to all employees that may be exposed to harmful vapors and oxygen deficient atmospheres.

In emergencies, when engineering or administrative controls are not effective in maintaining acceptable atmospheres, appropriate respiratory protective equipment shall be provided by the employer and shall be used. [1926.103] & [1910.134]



Safety Committee

The Safety Committee is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of this program. This authority includes hiring personnel and making equipment purchases necessary to implement and operate the program. The Safety Committee will develop written detailed instructions covering each of the basic elements in this program and is authorized to amend these instructions.

Management

The Safety Committee shall develop detailed written standard operating procedures governing the selection and use of respirators, using the NIOSH Respirator Decision Logic as a guideline. Outside consultation, manufacturer's assistance, and other recognized authorities will be consulted if there is any doubt regarding proper selection and use. Only the Safety Committee shall amend these procedures.

It is management's responsibility to determine what specific tasks require the use of respiratory protective equipment. Employees must be provided with equipment and adequate training on all equipment.

Superintendents

Superintendents are responsible for ensuring that the respiratory protection program is implemented in their areas. RALIN has expressly authorized the Superintendent to halt any operation where there is danger of serious personal injury; this includes respiratory hazards.

- Duties of the superintendents include:
- Ensuring that employees under their supervision have received appropriate training, fit testing, and medical evaluation.
- Monitoring respirator use
- Ensuring proper storage and maintenance of respiratory protection equipment.
- Conducting fit testing where required.
- Ensuring the availability of appropriate respirators and accessories.
- Being aware of tasks requiring the use of respiratory protection.
- Enforcing the proper use of respiratory protection when necessary.
- Ensuring that respirators are properly used, maintained, and stored.
- Continually monitoring work areas and operations to identify respiratory hazards.

Safety Manager (Program Administrator)

The Safety Manager is responsible for administering the respiratory protection program. Duties of the program administrator include:

- Identifying work areas, processes or tasks that require employees to wear respirators, and evaluating hazards
- Selection of respirators
- Administering the medical surveillance program
- Maintaining records required by the program
- Evaluating the program



- Ensuring training and fit testing are provided where necessary
- Updating written program, as needed

Employees

It is the responsibility of the employees to have an awareness of the respiratory protection requirements for their work areas. Employees are also responsible for wearing the appropriate respiratory protective equipment according to manufacturer instructions to include the maintenance of the equipment in a clean and operable condition. Furthermore, employees must immediately report any problems to their superintendent.

Employees shall comply with the following guidance.

- Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirator's limitations.
- Do not wear a respirator into atmospheres containing contaminants for which that respirator is not designed. For example, a respirator designed to filter dust particles will not protect against gases, vapors, or very small solid particles of fumes or smoke.
- Each user shall keep track of their assigned respirator so that users avoid using another user's assigned respirator.
- Respirators shall not be worn when conditions prevent a good face seal. Such conditions may be a growth of a beard and/or a growth of sideburns, a skullcap that projects under the face-piece, or temple pieces on glasses. No employees of RALIN required to wear respirators may grow a beard. The worker's diligence in observing these factors will be evaluated by periodic checks. To assure proper protection, the face-piece fit shall be checked by the wearer each time the wearer puts on the respirator. This shall be done by following the manufacturer's face-piece fitting instructions.

37.3.2 Training

Training in accordance with this program shall be completed by each employee covered by this program upon initial entry into the program and annually thereafter.

Employees required to use respiratory protective devices shall be thoroughly trained in their use. [1926.103] & [1910.134]

Prior to requiring an employee to use a respirator, the employee/ user shall be instructed and trained in the proper use of respirators and the respirator limitations. Training should provide the employee an opportunity to handle the respirator, have it fitted properly, test its seal on his/her face, wear it in normal air for a long familiarity period, and finally to wear it in a test atmosphere. Every respirator wearer shall receive fitting instructions, including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly.

Initial and annual respiratory protection program training will consist of the following content for the employee's knowledge:

- Content of respiratory protection program;
- Responsibilities of employees and supervisors;
- The hazardous nature of the air contaminant and other hazard controls;
- Respirators (types and selection);



- Fit and fit checks of respirators;
- Use of respirators;
- Function, limitations, and capabilities of respirators;
- Emergency situations;
- Donning, Doffing and Wearing;
- Inspection, Cleaning, Maintenance and Storage;
- Medical signs and symptoms of effective use; and
- Requirements of applicable regulator's respiratory protection rules or standards.

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of PPE changes or when the employee demonstrates lack of use, improper use, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

37.3.3 Medical Evaluation

For RALIN personnel, medical evaluations will be serviced via an acceptable medical care provider.

For evaluations serviced under Tanner Medical Centers in Carrollton, GA, an authorization for treatment form must first be completed by the corporate safety manager. Under "Accident /Injury Treatment Requests" mark "Other" and write

"Respirator Clearance and N95". Questionnaire must be in accordance with the questions included in Appendix C to Sec. 1910.134: OSHA Respirator Medical Evaluation Questionnaire (Mandatory)

Employees who are required to wear respirators must be medically evaluated before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators until a physician has determined that they are medically able to do so. Any employees refusing the medical evaluation will not be allowed to work in an area requiring respirator use.

Medical evaluation shall be confidential, during normal working hours, convenient, understandable, and the employee shall have the opportunity to discuss the results with the physician or other licensed health care professional (PLHCP) .

Persons will not be assigned to tasks requiring use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. A physician selected by RALIN will determine what health and physical conditions are pertinent. The respirator user's medical status shall be reviewed at least annually.

A licensed physician at our medical clinic, where all company medical services are provided, will provide the medical evaluations. Medical evaluation procedures are as follows:

The medical evaluation will be conducted using the questionnaire provided. The program administrator will provide a copy of this questionnaire to all employees requiring medical evaluations.

To the extent feasible, the company will assist employees who are unable to read the questionnaire (by providing help in reading the questionnaire). When this is not possible, the employee will be sent directly to the physician for medical evaluation.



All affected employees will be given a copy of the medical questionnaire to fill out, along with a stamped and addressed envelope for mailing the questionnaire to the company physician. Employees will be permitted to fill out the questionnaire on company time.

Follow-up medical exams will be granted to employees as required by the standard, and/or as deemed necessary by our medical clinic physician. For asbestos related evaluations, the physician must be qualified as a B reader of x-rays.

All employees will be granted the opportunity to speak with the physician about their medical evaluation, if they so request.

The program administrator will provide our medical clinic physician with a copy of this program, a copy of the Respiratory Protection standard, the list of hazardous substances by work area, and for each employee requiring evaluation:

- His or her work area or job title
- Proposed respirator type
- Length of time required to wear respirator
- Expected physical workload (light, moderate, or heavy)
- Potential temperature and humidity extremes
- Additional protective clothing required

After an employee has received clearance and begun to wear a respirator, additional medical evaluations will be provided under the following circumstances:

- Employee reports signs and/or symptoms related to their ability to use a respirator, such as shortness of breath, dizziness, chest pains, or wheezing
- The medical clinic physician or supervisor informs the program administrator that the employee needs to be reevaluated
- Information from this program, including observations made during fit testing and program evaluation, indicates a need for reevaluation
- A change occurs in workplace conditions that may result in an increased physiological burden on the employees

37.3.4 Selection Procedures

NIOSH-approved respirators will be selected based on the hazard assessment performed by the Corporate Safety Manager. RALIN shall select and provide an appropriate respirator based on the respiratory hazard(s) to which the worker is exposed and workplace and user factors that affect respirator performance and reliability.

Respiratory protective devices shall be approved by the National Institute for Occupational Safety and Health, or be acceptable to the U.S. Department of Labor, for the specific contaminant to which the employee is exposed. [1926.103] & [1910.134]

Employees are prohibited from bringing their own respirators onto the worksite

Choose respirators certified for use to protect against the contaminant of concern. NIOSH (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. Respirator packaging should provide information in regard to what the respirator is designed for and how much it will protect a human.

Respiratory protective devices shall be appropriate for the hazardous material involved, and the extent and nature of the work requirements and conditions. [1926.103] & [1910.134]

All selections will be made by the superintendent or foreman. Only MSHA / NIOSH certified respirators shall be selected and/or used.

Based on the hazards to which employees are exposed and in accordance with all OSHA, MSHA, NIOSH, ANSI, etc. standards, the Program Administrator has determined that a N95 NIOSH filtering dust mask is required for employees when performing tasks that may result in silica exposure.

Where practicable, the respirators will be assigned to individual workers for their exclusive use.

37.3.5 Assigned Protection Factors (APFs)

Employers must use the assigned protection factors listed in the table below to select a respirator that meets or exceeds the required level of employee protection. When using a combination respirator (e.g., airline respirators with an airpurifying filter), employers must ensure that the assigned protection factor is appropriate to the mode of operation in which the respirator is being used.

Assigned Protection Factors¹

Type of respirator ^{1, 2}	Quarter mask	Half mask ³	Full facepiece	Helmet/hood	Loose-fitting facepiece
1. Air-Purifying Respirator	5	10	50	.....	.....
2. Powered Air-Purifying Respirator (PAPR)	.....	50	1,000	⁴ 25/1,000	25
3. Supplied-Air Respirator (SAR) or Airline Respirator					
• Demand mode					
• Continuous flow mode	.....	10	50	⁴ .....	.....
• Pressure-demand or other positive pressure mode	.....	50	1,000	25/1,000	25
	.....	50	1,000	.....	.....
4. Self-Contained Breathing Apparatus (SCBA)					
• Demand mode					
• Pressure-demand or other positive-pressure mode (e.g., open/closed circuit)	.....	10	50	50	.....
	.....	.....	10,000	10,000	.....

Notes: ¹

Employers may select respirators assigned for use in higher workplace concentrations of a hazardous substance for use at lower concentrations of that substance, or when required respirator use is independent of concentration.



37.3.6 Fit Testing

Before an employee may be required to use any respirator with a negative or positive pressure tight-fitting facepiece, the employee must be fit tested with the same make, model, style, and size of respirator that will be used. This paragraph specifies the kinds of fit tests allowed, the procedures for conducting them, and how the results of the fit tests must be used.

The proper fit of respiratory equipment to the user is determined by a qualitative fit test according to 29 CFR 1910.134 Appendix A. Employees who take part in this program are not allowed facial area under the seal of the respirator.

Fit testing must be:

¹

These APFs do not apply to respirators used solely for escape. For escape respirators used in association with specific substances covered by 29 CFR 1910 subpart Z, employers must refer to the appropriate substance-specific standards in that subpart. Escape respirators for other IDLH atmospheres are specified by 29 CFR 1910.134 (d)(2)(ii).

²

The assigned protection factors in Table 1 are only effective when the employer implements a continuing, effective respirator program as required by this section (29 CFR 1910.134), including training, fit testing, maintenance, and use requirements.

³

This APF category includes filtering facepieces, and half masks with elastomeric facepieces.

⁴

The employer must have evidence provided by the respirator manufacturer that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater to receive an APF of 1,000. This level of performance can best be demonstrated by performing a WPF or SWPF study or equivalent testing. Absent such testing, all other PAPRs and SARs with helmets/hoods are to be treated as loose-fitting facepiece respirators and receive an APF of 25.

- Prior to initial use of the respirator;
- Whenever a different respirator facepiece (size, style, model or make) is used;
- At least annually thereafter.
- After medical evaluation or approval of questionnaire by licensed physician

The employer shall conduct an additional fit test whenever the employee reports, or the employer, PLHCP, supervisor, or program administrator makes visual observations of, changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.

If after passing a QLFT or QNFT, the employee subsequently notifies the employer, program administrator, supervisor, or PLHCP that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator facepiece and to be retested.

Employees will be trained in fit testing by performing negative and positive seal checks as outlined by the manufacturer.

The fit test will be administrated as follows:



Appendix A to § 1910.134: Fit Testing Procedures (Mandatory)

Part I. OSHA-Accepted Fit Test Protocols

A. Fit Testing Procedures -- General Requirements

The employer shall conduct fit testing using the following procedures. The requirements in this appendix apply to all OSHA-accepted fit test methods, both QLFT and QNFT.

1. The test subject shall be allowed to pick the most acceptable respirator from a enough respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.
2. Prior to the selection process, the test subject shall be shown how to put on a respirator, how it should be positioned on the face, how to set strap tension and how to determine an acceptable fit. A mirror shall be available to assist the subject in evaluating the fit and positioning of the respirator. This instruction may not constitute the subject's formal training on respirator use, because it is only a review.
3. The test subject shall be informed that he/she is being asked to select the respirator that provides the most acceptable fit. Each respirator represents a different size and shape, and if fitted and used properly, will provide adequate protection.
4. The test subject shall be instructed to hold each chosen facepiece up to the face and eliminate those that obviously do not give an acceptable fit.
5. The more acceptable facepieces are noted in case the one selected proves unacceptable; the most comfortable mask is donned and worn at least five minutes to assess comfort. Assistance in assessing comfort can be given by discussing the points in the following item A.6. If the test subject is not familiar with using a particular respirator, the test subject shall be directed to don the mask several times and to adjust the straps each time to become adept at setting proper tension on the straps.
6. Assessment of comfort shall include a review of the following points with the test subject and allowing the test subject adequate time to determine the comfort of the respirator:
 - (a) Position of the mask on the nose
 - (b) Room for eye protection
 - (c) Room to talk
 - (d) Position of mask on face and cheeks
7. The following criteria shall be used to help determine the adequacy of the respirator fit:
 - (a) Chin properly placed
 - (b) Adequate strap tension, not overly tightened
 - (c) Fit across nose bridge
 - (d) Respirator of proper size to span distance from nose to chin
 - (e) Tendency of respirator to slip
 - (f) Self-observation in mirror to evaluate fit and respirator position.



8. The test subject shall conduct a user seal check, either the negative and positive pressure seal checks described in Appendix B-1 of this section or those recommended by the respirator manufacturer which provide equivalent protection to the procedures in Appendix B-1. Before conducting the negative and positive pressure checks, the subject shall be told to seat the mask on the face by moving the head from side-to-side and up and down slowly while taking in a few slow deep breaths. Another facepiece shall be selected and retested if the test subject fails the user seal check tests.
9. The test shall not be conducted if there is any hair growth between the skin and the facepiece sealing surface, such as stubble beard growth, beard, mustache or sideburns which cross the respirator sealing surface. Any type of apparel which interferes with a satisfactory fit shall be altered or removed.
10. If a test subject exhibits difficulty in breathing during the tests, she or he shall be referred to a physician or other licensed health care professional, as appropriate, to determine whether the test subject can wear a respirator while performing her or his duties.
11. If the employee finds the fit of the respirator unacceptable, the test subject shall be given the opportunity to select a different respirator and to be retested.
12. Exercise regimen. Prior to the commencement of the fit test, the test subject shall be given a description of the fit test and the test subject's responsibilities during the test procedure. The description of the process shall include a description of the test exercises that the subject will be performing. The respirator to be tested shall be worn for at least 5 minutes before the start of the fit test.
13. The fit test shall be performed while the test subject is wearing any applicable safety equipment that may be worn during actual respirator use which could interfere with respirator fit.
14. Test Exercises.
 - (a) Employers must perform the following test exercises for all fit testing methods prescribed in this appendix, except for the CNP quantitative fit testing protocol and the CNP REDON quantitative fit testing protocol. For these two protocols, employers must ensure that the test subjects (i.e., employees) perform the exercise procedure specified in Part I.C.4(b) of this appendix for the CNP quantitative fit testing protocol, or the exercise procedure described in Part I.C.5(b) of this appendix for the CNP REDON quantitative fit-testing protocol. For the remaining fit testing methods, employers must ensure that employees perform the test exercises in the appropriate test environment in the following manner:
 - (1) Normal breathing. In a normal standing position, without talking, the subject shall breathe normally.
 - (2) Deep breathing. In a normal standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.
 - (3) Turning head side to side. Standing in place, the subject shall slowly turn his/her head from side to side between the extreme positions on each side. The head shall be held at each extreme momentarily so the subject can inhale at each side.
 - (4) Moving head up and down. Standing in place, the subject shall slowly move his/her head up and down. The subject shall be instructed to inhale in the up position (i.e., when looking toward the ceiling).



- (5) Talking. The subject shall talk out loud slowly and loud enough to be heard clearly by the test conductor. The subject can read from a prepared text such as the Rainbow Passage, count backward from 100, or recite a memorized poem or song.

Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond reach, his friends say he is looking for the pot of gold at the end of the rainbow.

- (6) Grimace. The test subject shall grimace by smiling or frowning. (This applies only to QNFT testing; it is not performed for QLFT)
- (7) Bending over. The test subject shall bend at the waist as if he/she were to touch his/her toes. Jogging in place shall be substituted for this exercise in those test environments such as shroud type QNFT or QLFT units that do not permit bending over at the waist.
- (8) Normal breathing. Same as exercise (1)

Each test exercise shall be performed for one minute except for the grimace exercise which shall be performed for 15 seconds. The test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of respirator shall be tried. The respirator shall not be adjusted once the fit test exercises begin. Any adjustment voids the test, and the fit test must be repeated.

Documentation and Recordkeeping

The program administrator maintains the following records:

- A written copy of this Program and the regulatory (e.g., OSHA, MSHA, ANSI, etc.) standard (this information is available to any interested employee).
- Training and fit testing records. Further, these records are updated as new employees are trained; when an existing employee receives refresher training; and/or when a new fit test is conducted. Written recommendations from the PLHCP on an employee's ability to use respirators
- OSHA - 29 CFR 1910.134 Appendix D: Information for Employees Using Respirators When Not Required Under the Standard

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 regulator (OSHA, MSHA, ANSI, etc.) 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.



37.3.7 Inspection

Regular inspections and evaluations to determine the continued effectiveness of the program shall be performed. The Superintendent will make frequent inspections of all areas where respirators are used to ensure compliance with the respiratory protection programs.

Respiratory protective equipment shall be inspected regularly and maintained in good condition. [1926.103] & [1910.134]

Respirators for emergency use, such as self-contained devices, will be thoroughly inspected at least once a month and after each use.

37.3.8 Cleaning and Maintenance

Respirators issued for the exclusive use of one worker will be cleaned after each day's use, or more often if necessary. Respirators used by more than one worker shall be thoroughly cleaned and disinfected after each use.

Cleaning Procedures are as follows:

Appendix B-2 to § 1910.134: Respirator Cleaning Procedures (Mandatory)

I. Procedures for Cleaning Respirators

- A. Remove filters, cartridges, or canisters. Disassemble facepieces by removing speaking diaphragms, demand and pressure- demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.
- B. Wash components in warm water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.
- C. Rinse components thoroughly in clean, warm preferably running water. Drain.
- D. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:
 1. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 deg. C (110 deg. F); or,
 2. Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 43 deg. C (110 deg. F); or,
 3. Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.
- E. Rinse components thoroughly in clean, warm, preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.
- F. Components should be hand-dried with a clean lint-free cloth or air-dried.
- G. Reassemble facepiece, replacing filters, cartridges, and canisters where necessary.
- H. Test the respirator to ensure that all components work properly.



- I. Must clean and disinfect respirators using the procedures in Appendix B-2, or equally effective manufacturer's procedures at the following intervals:
 - 1. as often as necessary to maintain a sanitary condition for exclusive use respirators,
 - 2. before being worn by different individuals when issued to more than one employee, and
 - 3. after each use for emergency use respirators and those used in fit testing and training
- J. Respirators will be regularly cleaned and disinfected. Respirators used routinely will be inspected during cleaning. Worn or deteriorated parts shall be replaced.

37.3.9 Storage

The central respirator cleaning and maintenance facility will store respirators in a clean and sanitary location. Storage areas will be determined on each jobsite.

Employees shall store respirators in a clean, re-sealable bag or container after it has been cleaned and disinfected. The respirator will be stored in a temperate location 40 to 90 degrees F and not subjected to freezing conditions. It must be protected from physical damage from being struck or crushed by other tools or equipment.

Respirators are to be stored in the box they came in and inside a clean cabinet or box. They are not to be stored in a gang or toolbox.

37.3.10 Use

Personnel responsible for supervising personnel working within atmospheres or environments that require use of respirators (and within a respiratory protection program) will provide regular and appropriate surveillance to the scope of work being performed.

Employees shall leave the area to wash or change cartridges as needed or as directed.

If a break-through or resistance is detected, then the employee shall leave the work area immediately (while maintaining PPE wear as best as is feasible) to address the issue.



Section 38 - SCAFFOLDING

38.1 Purpose

This program is intended to provide all RALIN employees and trades with the requirements involved with using scaffolding equipment.

38.2 Goal

The goal of this program is to ensure that all personnel work with and on scaffolding equipment in a safe manner on RALIN projects.

38.3 Policy

Scaffold means any temporary elevated platform (supported or suspended) and its supporting structure (including points of anchorage) used for supporting employees or materials or both. [1926.450(b)]

The following is a list of common types of scaffolds encountered on RALIN projects (this list is in no way all types of scaffold):

- Mason (Rolling and Fixed)
- Baker (Rolling and Fixed)
- Perry (Rolling and Fixed)
- Scissor Lifts
- Mast Lift
- Pump-Jack
- Tube and Coupler

38.3.1 Training

Employees shall have adequate training and proper authorization prior to working on or from scaffolding equipment. Training must include:

- Fall Protection;
- Tag System;
- Electrical Safety;
- Falling Object Protection;
- Scaffold Use; and
- Scaffold Load Capacity

Retraining of employees is required where changes at the worksite present a hazard about which an employee has not been previously trained; or where changes in the types of scaffolds, fall protection, falling object protection, or other equipment present a hazard about which an employee has not been previously trained; or where inadequacies



in an affected employee's work involving scaffolds indicate that the employee has not retained the requisite proficiency.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

38.3.2 Inspection and Storage

A competent person shall inspect scaffolds, scaffold components, and ropes on suspended scaffolds before each work shift and after any occurrence that could affect the structural integrity. The competent person also must ensure that prompt corrective action is taken. [1926.451(f)(3) & (d)(10)]

Trades must identify their scaffold competent person for scaffolds erected on RALIN projects. The competent person is required to inspect all scaffolds at the beginning of each day, to supervise all erection, modification, and dismantling of scaffolds; train all workers; and take immediate corrective action when a hazard occurs.

38.3.3 Use

38.3.3.1 Scaffold Tags

Unsafe or defective equipment or conditions shall be tagged out by the Competent Person promptly Compliance with this tagging system is mandatory.

ALL SCAFFOLDS WILL BE TAGGED within a visible line of sight of every scaffold access point (e.g. elevator shafts, corridors, stair wells, etc.).

All tags shall be complied with based on the following color-coding system.

- ✦ **Red** = Danger – Do Not Use
- ✦ **Green** = Go – Ready to Use

38.3.3.2 Rolling Tower Scaffold

The rolling tower can be no greater than 4 times the minimum base in height. For example: A 5'-0" width scaffold x 4 = 20'-0" height. All rolling towers must be the following.

- ✦ No work shall proceed until all wheel locks are in the "Lock" position.
- ✦ Must be the proper height.
- ✦ Scaffold sections and casters must be locked/pinned in place
- ✦ The access ladder must be secured to the scaffold and extend at least 36" above the landing.

38.3.3.3 Conditions for Riding on a Scaffold

- ✦ No work shall proceed until all wheel locks are in the "Lock" position.
- ✦ Floor surface level.
- ✦ The employee's feet on the scaffold are no higher than 5 feet.



- ✦ All tools must be off the scaffold.
- ✦ The scaffold must stay plumb and square while moving.
- ✦ Guardrails at 42" and 21".
- ✦ Minimum 3 1/2 " toe board.
- ✦ 20'-0" is the maximum height allowed.
- ✦ All braces and casters are bolted/ pinned.

38.3.3.4 Scaffold Decking / Boards

- ✦ All scaffold boards must have a minimum 12" overlap, nailed together.
- ✦ All scaffold boards must be cleated if the lap is less than 12".
- ✦ All personnel platforms must have a minimum 3 1/2" toe board.
- ✦ All material platforms should never be used as a personnel platform.
- ✦ All working levels of scaffolds must be fully planked.
- ✦ The scaffold platform shall be planked or decked as fully as possible with the space between the platform and uprights not more than one (1) inch wide. When side brackets or odd shaped structures result in a wider opening between the platform and the uprights, the space shall not exceed 9.5 inches. The platform shall not deflect more than 1/60 of the span when loaded. [1926.451(b)(1) & (f)(16)] ✦ All wooden scaffold boards must be of scaffold grade lumber.

38.3.3.5 Guardrails / Toe Boards

- ✦ All handrails must be 42" and 21".
- ✦ All toe boards must be a minimum of 3 1/2".
- ✦ X-braces are not adequate as a complete guardrail system.
- ✦ All guardrails must withstand 200 lbs. of force with no more than a 3" deflection.
- ✦ Must be installed on all scaffolds where associates may pass underneath or near the scaffold

38.3.3.6 Cross (X) Braces

- ✦ Never to be used as a complete guardrail system.
- ✦ Can be used as part of a guardrail system, in some cases.
- ✦ Never to be used as a ladder or any other means of access.
- ✦ If the X-brace must be removed to work, then metal tubing with clamps must take its place.
- ✦ Cross-braces shall not be used as a means of access. [1926.451(e)(1) & (e)(8)]
- ✦ Cross-braces may be used for handrails or mid rails on frame scaffolds where the cross lands at a height to serve that purpose. Where it is used as a mid-rail, a handrail still must be added. Where used as a handrail, amid rail still must be added.
- ✦ All cross-braces must be in place on frame-type scaffolds. ☒ Climbing cross-braces on scaffolds is strictly prohibited.



38.3.3.7 Scissor Lifts

- ✦ All modifications to any scissor lift must have written approval from the manufacturer.
- ✦ 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 any other device as a work platform.
- ✦ Never remove lift guardrails while lift is in operation. ☐ Always latch guardrail chain while lift is in operation.
- ✦ Never disable reverse alarm beeper on lift.
- ✦ Do not exit a lift until it has reached its lowest position.
- ✦ Always advise other workers on lift prior to changing height or position.
- ✦ Use extreme caution to avoid head injuries from objects above when raising lift.
- ✦ Personal fall arrest systems will be used in scissor lifts where required by manufacturer or owner. When required, a manufacturer's designated anchorage shall be used.
- ✦ Workers must not increase working heights by placing boards between the guardrails or by standing on buckets, ladders, or other devices. Workers must stand on the floor of the scissor lift at all times.
- ✦ Scissor lifts must be operated on firm; level footing that is free of obstructions that may cause the lift to overturn.

38.3.3.8 General Scaffold

- ✦ All scaffolds must be plumb, level, and square at all times on compacted soil.
- ✦ Base plates and a minimum 2" x 10" mudsill plate must be used on all frame scaffolds whether on solid ground, asphalt, or concrete.
- ✦ Base plates must be nailed to sill plate with a minimum of two nails.
- ✦ Never use bricks, blocks, rocks, etc. as support.
- ✦ All legs must have equal bearing.
- ✦ When scaffolds exceed 4 times the least base dimension, they must be tied off, guyed off, or have the base extended with outriggers to prevent tipping.

38.3.3.9 General Conditions

- ✦ A competent person must supervise the building / erection of the scaffolding.
- ✦ The employer shall have a competent person to determine the feasibility and safety of providing fall protection for employees erecting or dismantling supported scaffolds. [1926.451(g)(2)]



- ✦ Scaffolding erected outside the building / structure must be secured to the structure at least every: 20'-0" / 26'-0" Vertically AND 30'-0" Horizontally AND at each end of the scaffold.
- ✦ Scaffolding must never be lifted other than vertically.
- ✦ Fall Protection must be provided at and above 10'-0" on all scaffolds.
- ✦ "Baker" or "Perry" type scaffold shall be used per the manufacturer's written recommendations.
- ✦ Fall protection, such as guardrail and personal arrest systems, must be provided for each employee working on a scaffold more than ten (10) feet above a lower level. [1926.451(g)(1)] This must be accomplished with standard guardrail systems or personal fall arrest equipment.
- ✦ Each scaffold and scaffold component shall support, without failure, its own weight and at least four (4) times the maximum intended load applied or transmitted to it. Scaffolds shall be designed by a qualified person and constructed and loaded in accordance with such design. Scaffolds and scaffold components shall not be loaded in excess of their maximum intended loads or rated capacities, whichever is less. [1926.451(a)(1)]
- ✦ The work area for each scaffold platform and the walkway shall be at least eighteen (18) inches wide. [1926.451(b)(2)]
- ✦ Access must be provided when the scaffold platforms are more than two (2) feet above or below a point of access. Where climbing frames allow, associates may climb the frame. Climbing frames is prohibited on nonclimbing frames, such as "A" frame or walk-through scaffold frames. Where frames are not designed for climbing, either attachable scaffold ladders, or portable ladders must be used for safe access.
- ✦ Stilts may be used on a large area scaffold. [1926.452(y)(1)] (A large area scaffold is a pole, tube and coupler, systems or fabricated frame scaffold erected over the entire work area.)
- ✦ When a guardrail system is used, the guardrail height shall be equal to the height of the stilts and any alterations to the stilts shall be approved by the manufacturer. [1926.452(y)(2)]
- ✦ Scaffold systems must be tied off to a secure structure every twenty-six (26) feet vertically and every thirty (30) feet horizontally.
- ✦ Workers are not allowed to move Perry and Baker scaffolding while they are working on them by pulling/pushing. This may result in tipping of the scaffold. Perry and Baker scaffolding is subject to tipping due to the narrowness of the base. It is essential that outriggers be used whenever scaffolding exceeds four times the minimum base dimension.
- ✦ Metal scaffold frames must not be used within ten (10) feet of any energized power line.
- ✦ Frame scaffolds must have mudsills (preferable continuous) when constructed on the ground or asphalt.
- ✦ Workers involved in erecting or dismantling scaffolds must use fall protection unless the competent person has determined it is not feasible to do so.





Section 39 - TRENCHING / SHORING / EXCAVATIONS

39.1 Purpose

RALIN incorporates the following Excavation / Trenching Program to follow during its day-to-day operations.

The OSHA requirements for a “Competent Person” to be onsite are met by the trained employees of RALIN

Excavation and Trenching safety problems can be avoided by hazards awareness and recognition by employees on the jobsite. RALIN provides the opportunity for employees to attend “Competent Person” training to understand the potential for cave-in / engulfment of a trench, and the methods to protect employees from a cave-in / engulfment.

39.2 Goal

Through training of employees in hazard recognition, a safe and efficient method to provide a safe worksite is devised prior to excavation and maintained throughout the length of the excavation activity.

39.3 Policy

All soils on RALIN jobs are considered to be type “C” (C80) soil. Proper methods for type C” soil shall be assumed unless the soil is classified otherwise with supporting documentation and/or approval from RALIN’s safety department.

Regulatory Requirements:

- OSHA 1926.21
- OSHA 1926.32(f)
- OSHA 1926.650
- OSHA 1926.651
- OSHA 1926.652

39.3.1 Roles and Responsibility

RALIN provides training in safe methods of excavation and trenching and will determine the employees who have the authority to control any type of excavation work.

The “Competent Person” has the training required by OSHA to recognize potential hazards in excavation work, and has the authority to take corrective action, including but not limited to, stopping the work, directing the employees to exit the excavation, and providing safe methods of protection.

All employees of RALIN can recognize potential unsafe conditions and are to report such conditions to the “Competent Person” or the superintendent within 1 hour of the observation.

Trades performing work for RALIN must have Competent Persons available on the worksite. Trades must also employ safe methods of protecting employees from hazards—the same as those followed by RALIN

A Competent Person must inspect and approve all excavations / trenches PRIOR to any employee entering any excavations / trenches.

39.3.2 Training

All personnel working in environments likely to expose them to this program's intent shall be trained to recognize hazards associated with trenching, shoring and excavation.

Employees shall have adequate training and proper authorization prior to working in, on or around trenching, shoring and excavation operations. Training must include:

- Orientation;
- "Competent Person" Training;
- Safety Review of Jobsite;
- Refresher Training (if required);
- Soils Analysis Review;
- Use of Protective Systems Review; and
- Proper methods of protection.

Retraining of employees is required where changes at the worksite present a hazard about which an employee has not been previously trained; or where changes in the types of trenching, shoring and excavation present a hazard about which an employee has not been previously trained; or where inadequacies in an affected employee's work involving trenching, shoring and excavation indicate that the employee has not retained the requisite proficiency.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

39.3.3 Inspection

A competent person is defined as:

- One who can identify existing and predictable hazards in the surrounding, or working conditions that are unsanitary, hazardous, or dangerous to employees. One who must have training in and be knowledgeable about soils analysis, protective systems and Subpart "P"; and
- One who has the authority to take prompt corrective measures to eliminate hazards.

Daily inspections of excavations, the adjacent areas and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by a competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard-increasing occurrence. These inspections are only required when employee exposure is anticipated. [1926.651(k)(1)]

Inspections must be documented via a superintendent's log, etc. The excavation competent person must complete the daily excavation checklist prior to anyone entering the excavation for excavations and trenches 4 feet in depth or greater.

A competent person who has training, knowledge, and authority to identify hazards and take immediate corrective action must always be available on the job site when workers are required to enter any trench or excavation. On our projects, the superintendent is the excavation competent person.

Where a competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety. [1926.651(k)(2)]

39.3.4 General

Employees shall be protected from vehicular and equipment traffic via barricades, high visibility vests or shirts (outermost clothing), etc.

Employees must be protected from water accumulation, including the use of shields. No one may be allowed to work in excavations where water is accumulating.

For all excavations or trenches more than five feet in depth, slope the sides of the excavation or trench, 1.5 horizontal to 1 vertical, unless a competent person classifies the soil and determines that this is not necessary. Other alternatives are to use shoring or a trench box.

In all excavations or trenches 4 feet in depth or greater the soil must be classified and tested in accordance with OSHA standards. At least one manual and one visual test must be conducted and documented.

All excavations and trenches 4 feet in depth or greater must be protected from cave-in by sloping, shoring, shielding, or must be designed by a registered professional engineer. If the potential for a cave-in (as determined by the competent person) exists in areas less than 4 feet in depth, such protection must also be provided.

All excavations or trenches 20 feet in depth or greater must have the sloping, shoring or a protective system designed by a registered professional engineer, without exception.

In trenches deeper than four feet, a means of exit, such as ladders or steps, must be no more than twenty-five (25) feet of travel from any employee in the trench.

Fall protection or warning barricades must be erected around all open trenches or excavations to protect from fall hazards.

A ladder or other safe means of access & egress must be provided when the trench or excavation is over 4 feet deep.

Anyone entering an excavation must be trained in the hazards and protective methods required.

All spoil piles must be kept back a minimum of 2 feet from the edge of the excavation.

Where the possibility of a hazardous atmosphere exists, the air must be tested, and corrective actions taken if a hazardous atmosphere is detected.

The estimated location of utility installations that reasonably may be expected to be encountered during excavation work shall be determined prior to opening an excavation. This includes sewer, telephone, fuel, electric, water lines, or any other underground installations. [1926.651(b)]

Utility companies or owners shall be contacted within established customary local response times, advised of the proposed work, and asked to establish the location of the utility underground installations prior to the start of actual excavation. When utility companies or owners cannot respond to a request to locate underground utility installations within forty-eight (48) hours (unless a longer period is required by state or local law), or cannot establish the exact location of these installations, the company may proceed provided the company does so with caution, and provided detection equipment or other acceptable means to locate utility installations are used. [1926.651(b)(2)]

When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means. While the excavation is open, underground installation shall be protected, supported or removed as necessary to safeguard employees. [19226.651(b)(3) & (b)(4)]

Each employee in an excavation shall be protected from cave-ins by an adequate protective system except when excavations are made entirely in stable rock; or excavations are less than four (4) feet in depth and examination of the ground by a competent person provided no indication of a potential cave-in. [1926.652(a)(1)(i) & (a)(1)(ii)]

Protective systems shall have the capacity to resist without failure all loads that are intended or could reasonably be expected to be applied and/or transmitted to the system. [1926.652(a)(2)]

A copy of the tabulated data for excavation protective systems must be maintained at the jobsite during construction.

[1926.652(c)(3)(iii)]

Employees shall be protected from all materials or equipment that could pose a hazard by falling or rolling into excavations. Protection shall be provided by placing and keeping such materials or equipment at least two (2) feet from the edge of the excavations, or by using retaining devices that are enough to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary. [1926.651(j)(2)] No employee is authorized to work under loads of digging equipment where loads may fall.

A stairway, ladder, ramp or other safe means of egress shall be in trench excavations that are four (4) feet or more in depth to require no more than twenty-five (25) feet of lateral travel for employees. [1926.651(c)(2)]

Where employees or equipment are required or permitted to cross over excavations, walkways, or bridges, standard guardrails shall be provided. [1926.651(l)] & [1926.501(b)(7)]

39.3.5 Trench Boxes

Trench boxes are intended primarily to protect workers from cave-ins. The excavated area between the outside of the trench box and the face of the trench should be as small as possible. The space between the trench boxes and the excavation side are backfilled to prevent lateral movement of the box. Shields may not be subjected to loads exceeding those which the system was designed to withstand.

Only manufactured trench boxes may be used. The manufacturer's data for the box must be reviewed and be available on the site.

If damage to braces or other damage is noted, the box may not be used.

If the trench is deeper than the box, start sloping 18 inches below the top of the box.

The bottom of the box must be within two feet of the bottom of the trench.

Trench boxes are designed to be moved by connecting to the lifting hardware, not by pushing/pulling on the braces.

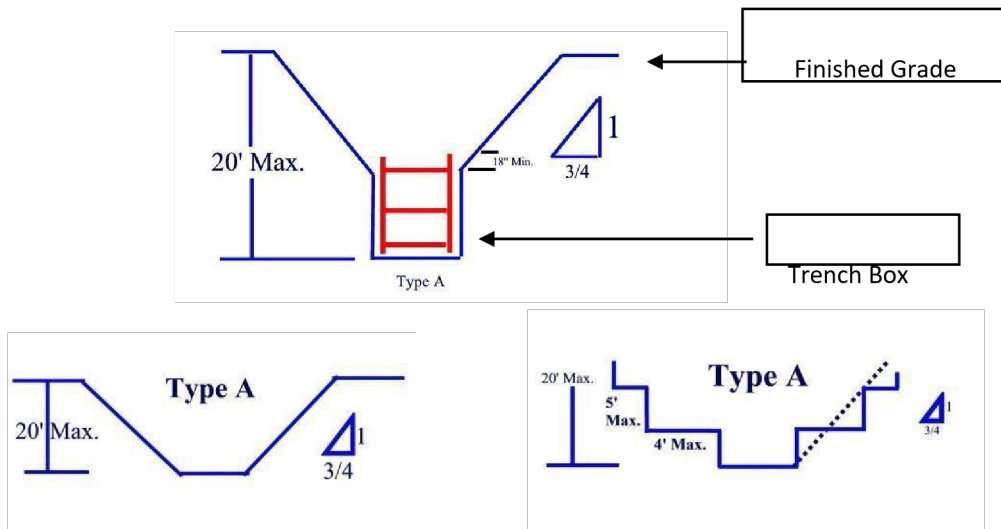
39.3.6 Soil Types

Type "A" Soil

Type "A" means cohesive soil with an unconfined compressive strength of 1.5 tons per square foot (tsf) or greater, or cemented granular soil such as hardpan, till, or caliche. No soil is Type A if any of the following conditions exist:

- ✦ The soil is fissured; or
- ✦ The soil is subject to vibration from heavy traffic, pile driving, or similar effects; or
- ✦ The soil has been previously disturbed; or
- ✦ The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater; or
- ✦ The material is subject to other factors that would require it to be classified as a less stable material.

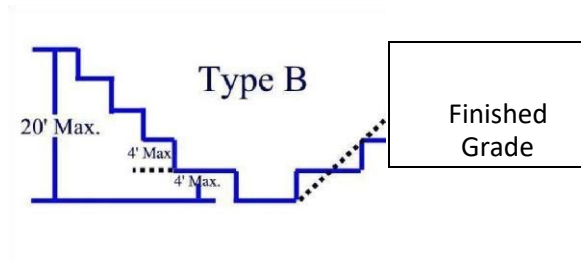
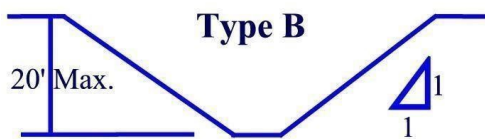
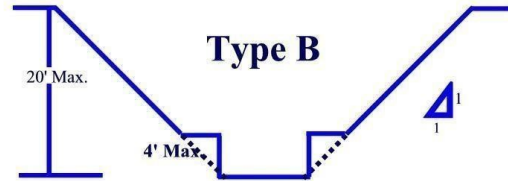
Samples of Proper Sloping and Benching



Type "B" Soil

Type "B" means:

- ✦ Cohesive soil with an unconfined compressive strength greater than 0.5 tsf but less than 1.5 tsf; or
- ✦ Granular soil that can stand on a slope of three horizontal to one vertical (3H:1V) or greater without slumping; or
- ✦ Soil that meets the unconfined compressive strength or cementation requirements for Type A,



Bottom of Trench
but is fissured, subject to vibration, or has previously been disturbed; and

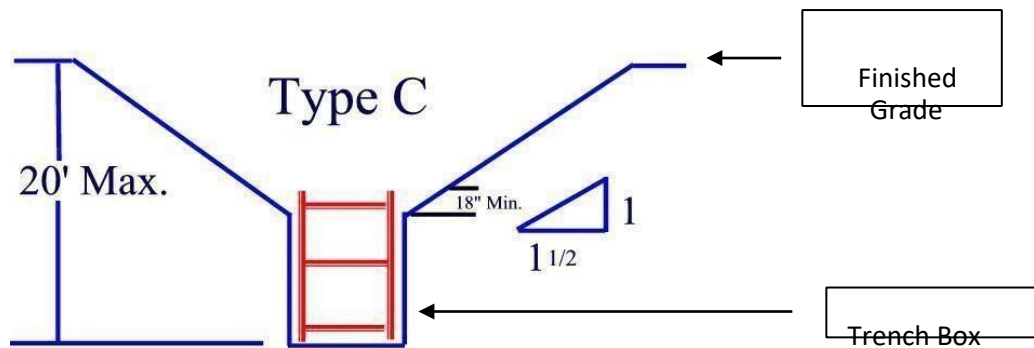
- ✦ Dry rock that is not stable; and
- ✦ Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontals to one vertical (4H:1V), but only if type material would otherwise be classified as Type B.

Samples of Proper Sloping and Benching

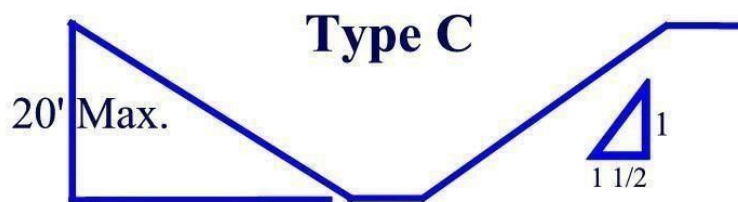
Type "C" (C80) Soil

Type "C" (C80) means:

- ✦ Cohesive soil with an unconfined compressive strength of 0.5 tsf or less; and
- ✦ Granular soil that cannot stand on a slope of three horizontal to one vertical (3H: 1V) without slumping; and
- ✦ Saturated or submerged soil; and
- ✦ Submerged rock that is not stable; and
- ✦ Soil in a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H: 1V)



Samples of Proper Sloping and Benching





Section 40 - STEEL ERECTION

40.1 Purpose

This section is intended to provide all RALIN employees and trades with the requirements involved with site layout, site-specific erection plan and construction sequence in accordance with 29 CFR 1926.752.

40.2 Goal

The goal of this program is to ensure that all operations involving the erection of steel adhere to safe work practices as prescribed by OSHA and acceptable trade specific behaviors on RALIN projects.

40.3 Policy

40.3.1 Definitions

Competent Person (defined in 29 CFR 1926.32) – One who can identify 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 them.

Connector – An employee who, working with hoisting equipment, is placing and connecting structural members and/or components.

Controlled Decking Zone (CDZ) – An area in which certain work (for example, initial installation and placement of metal decking) may take place without the use of guardrail systems, personal fall arrest systems, fall restraint systems, or safety net systems and where access to the zone is controlled.

Qualified Person (defined in 1926.32) – One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project.

Steel Erection – The construction, alteration or repair of steel buildings, bridges and other structures, including the installation of metal decking and all planking used during the process of erection. *NOTE: If project management speculates whether a project's scope of work is regulated by this section, then communicate the situation with RALIN's corporate safety manager for final disposition.*

40.3.2 Training

In accordance with 29 CFR 1926.761, only trained and competent persons shall supervise steel erection operations.

Site-specific scopes of work will determine the required training but competent person training for steel erection operations typically include training and experience with:

- Crane operations/signaling,
- Rigging,
- Multiple lift rigging procedure,
- Connector procedures,
- Controlled decking zone (CDZ) procedures,
- Fall protection,



- Welding, and
- Training in site specific aerial lift and mobile scaffolds/scissor lifts.

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of means and methods change or when the employee demonstrates lack of knowledge, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

40.3.3 Documentation

A document composed of competent person, site layout, site-specific erection plan and construction sequence(s) will be established for every RALIN project where steel erection is required as follows:

40.3.3.1 Competent Person

Shall contain narrative and/or documents from the individual's employer on company letterhead that provide supporting information for the qualifications and experience of this designated person. Some typical qualifications and experience this individual should possess:

- Rigging and Signaling
- Fall Protection
- Steel Erection
- Welding
- Crane Operator
- Forklift Operator
- Aerial Lift
- Mobile Scaffolds (Scissor Lifts)

40.3.3.2 Site Layout

RALIN shall ensure that the following is provided and maintained regarding site layout:

- Adequate access roads into and through the site for the safe delivery and movement of derricks, cranes, trucks, other necessary equipment, and the material to be erected and means and methods for pedestrian and vehicular control. Exception: this requirement does not apply to roads outside of the construction site.
- A firm, properly graded, drained area, readily accessible to the work with adequate space for the safe storage of materials and the safe operation of the erector's equipment.

40.3.3.3 Pre-Planning of Overhead Hoisting Operations

All hoisting operations in steel erection shall be pre-planned to ensure that the requirements of working under loads are met as follows:



- Routes for suspended loads shall be pre-planned to ensure that no employee is required to work directly below a suspended load except for:
 - Employees engaged in the initial connection of the steel;
 - Employees necessary for the hooking or unhooking of the load.
- When working under suspended loads, the following criteria shall be met:
 - Materials being hoisted shall be rigged to prevent unintentional displacement;
 - Hooks with self-closing safety latches or their equivalent shall be used to prevent components from slipping out of the hook; and
 - All loads shall be rigged by a qualified rigger.

40.3.3.4 Site-Specific Erection Plan

RALIN shall ensure that the following is provided and maintained regarding a site-specific erection plan:

- Where employers elect, due to conditions specific to the site, to develop alternate means and methods that provide employee protection in accordance with 1926.753(c)(5), 1926.757(a)(4) or 1926.757(e)(4), a site specific erection plan shall be developed by a qualified person and be available at the work site. Guidelines for establishing a site-specific erection plan are contained in 29 CFR 1926, Subpart R, Appendix A and are included in this section.
- 1926.753(c)(5) Safety latches on hooks shall not be deactivated or made inoperable except:
 - When a qualified rigger has determined that the hoisting and placing of purlins and single joists can be performed more safely by doing so; or
 - When equivalent protection is provided in a site-specific erection plan.
- 1926.757(a)(4) Where steel joists at or near columns span more than 60 feet (18.3 m), the joists shall be set in tandem with all bridging installed unless an alternative method of erection, which provides equivalent stability to the steel joist, is designed by a qualified person and is included in the site-specific erection plan.
- Or 1926.757(e)(4) No bundle of decking may be placed on steel joists until all bridging has been installed and anchored and all joist bearing ends attached, unless all of the following conditions are met:
 - The employer has first determined from a qualified person and documented in a site-specific erection plan that the structure or portion of the structure is capable of supporting the load;
 - The bundle of decking is placed on a minimum of three steel joists; The joists supporting the bundle of decking are attached at both ends; At least one row of bridging is installed and anchored;
 - The total weight of the bundle of decking does not exceed 4,000 pounds (1816 kg); and ○ Placement of the bundle of decking shall be in accordance with the following: the edge of the construction load shall be placed within 1 foot (.30 m) of the bearing surface of the joist end.



- 1926 Subpart R Appendix A
 - (a) General. This appendix serves as a guideline to assist employers who elect to develop a site-specific erection plan in accordance with 1926.752(e) with alternate means and methods to provide employee protection in accordance with 1926.752(e), 1926.753(c)(5), 1926.757(a)(4) and 1926.757(e)(4).
 - (b) Development of a site-specific erection plan. Preconstruction conference(s) and site inspection(s) are held between the erector and the controlling contractor, and others such as the project engineer and fabricator before the start of steel erection. The purpose of such conference(s) is to develop and review the site-specific erection plan that will meet the requirements of this section.
 - (c) Components of a site-specific erection plan. In developing a site-specific erection plan, a steel erector considers the following elements:

The sequence of erection activity, developed in coordination with the controlling contractor, which includes the following:

 - Material deliveries:
 - Material staging and storage; and
 - Coordination with other trades and construction activities
 - A description of the crane and derrick selection and placement procedures, including the following:
 - Site preparation;
 - Path for overhead loads; and
 - Critical lifts, including rigging supplies and equipment.
 - A description of steel erection activities and procedures, including the following:
 - Stability considerations requiring temporary bracing and guying;
 - Erection bridging terminus point;
 - Anchor rod (anchor bolt) notifications regarding repair, replacement and modifications;
 - Columns and beams (including joists and purlins); Connections;
 - Decking; and
 - Ornamental and miscellaneous iron
 - A description of the fall protection procedures that will be used to comply with 1926.760
 - A description of the procedures that will be used to comply with 1926.759
 - A description of the special procedures required for hazardous non-routine tasks
 - A certification for each employee who has received training for performing steel erection operations as required by 1926.761
 - A list of the qualified and competent persons
 - A description of the procedures that will be utilized in the event of rescue or emergency response
 - (d) Other plan information. The plan:
 - Includes the identification of the site and project; and
 - Is signed and dated by the qualified person(s) responsible for its preparation and modification.



40.3.3.5 Construction Sequence(s)

A construction sequence narrative shall be documented that establishes a written description of the anticipated sequence of erection that may include:

- References to column lines
- Unique assemblies, and
- Site-specific sequence limitations.

40.3.3.6 Written Notification from Testing Agent for Commencement of Steel Erection

A steel erection contractor shall not erect steel unless it has received written notification that the concrete in the footings, piers and walls or the mortar in the masonry piers and walls has attained, on the basis of an appropriate ASTM standard test method of field-cured samples, either 75 percent of the intended minimum compressive design strength or sufficient strength to support the loads imposed during steel erection.

40.3.3.7 Written Approval from Controlling Contractor to Steel Erector to Begin Erection Operations

Before authorizing the commencement of steel erection, the controlling contractor shall ensure that the steel erector is provided with the following written notifications:

- The concrete in the footings, piers and walls and the mortar in the masonry piers and walls has attained, on the basis of an appropriate ASTM standard test method of field-cured samples, either 75 percent of the intended minimum compressive design strength or sufficient strength to support the loads imposed during steel erection.
- Any repairs, replacements and modifications to the anchor bolts were conducted in accordance with 1926.755(b)

40.3.4 General

A pre-formatted template MS Office Word document plan is available at your request from RALIN corporate safety personnel.

RALIN's policy is 100% tie-off at all times.

The operator shall be responsible for those operations under the operator's direct control. Whenever there is any doubt as to safety, the operator shall have the authority to stop and refuse to handle loads until safety has been assured. [1926.753(c)(1)(iv)]

The controlling contractor shall bar other construction processes below steel erection unless overhead protection for the employees below is provided. [1926.759(b)]

Employees engaged in a steel erection activity who are on a walking/working surface with an unprotected side or edge more than fifteen (15) feet above a lower level shall be protected from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, positioning device systems, or fall restraint systems. [1926.760(a)(1)]

The employer shall provide a training program for all employees exposed to fall hazards. The program shall include training and instruction in CFR 29 Part 1926 Subpart M. [1926.761(b) & (b)(1) thru (b)(5)]



Section 41 - RIGGING AND MATERIAL HANDLING

41.1 Purpose

This program is intended to provide all RALIN employees and trades with the requirements involved with Rigging and Material Handling.

41.2 Goal

The goal of this program is to ensure that all personnel Hoist, Handle and Rig materials and equipment in a safe manner on RALIN projects.

41.3 Policy

41.3.1 Training

Only trained and authorized employees may rig loads. Proof of training for trades must be provided. Training must include:

- Hazards and regulations associated with working adjacent to overhead electric lines and equipment;
- Common load configurations and positioning;
- Use of taglines;
- Sling and hardware inspections;
- Chain/synthetic/wire rope slings;
- Common rigging hitches;
- Shackles, clips, hooks and similar attaching devices; and
- Come-along/chain hoist operations

Retraining of employees is required when the workplace changes, making the earlier training obsolete, the type of means and methods change or when the employee demonstrates lack of knowledge, or insufficient skill or understanding.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

41.3.2 Inspection and Storage

Wire ropes, chains, ropes and other rigging equipment will be inspected prior to use and as necessary during use to assure their safety. Remove defective rigging equipment from service immediately. [1926.251(a)(1)]

Planning for rigging includes a pre-use inspection of slings and hardware by the qualified rigger. The pre-use inspection does not replace the regular shift inspection by a competent person and is not intended to be a complete inspection of degree of damage.

If any rigging equipment damage is noted, the rigging should be removed from service and brought to the attention of the competent person.



Any rigging equipment, when not in use, shall be removed from the immediate work area. Rigging equipment must be properly stored at the end of the workday in a clean and dry location.

41.3.3 Use

General Rigging Requirements:

- No employee shall be allowed under a suspended load.
- Hooks on overhaul ball assemblies, lower load blocks, or other attachment assemblies shall be of a type that can be closed and locked, eliminating the hook throat opening. Alternatively, an alloy anchor type shackle with a bolt, nut and retaining pin may be used.
- All rigging equipment shall not be loaded in excess of its recommended safe working load.
- All rigging must have manufacturers tag indicating capacity.
- Keep sling angle 60° or greater. Never go below 30°.
- Ensure the load is not released until hands are removed from under the load.
- Ensure slings are hitched in a manner providing control of the load.
- Ensure sharp edges in contact with slings are padded to protect the sling and the load.
- Ensure slings are shortened or adjusted only by methods approved by the sling manufacturer or a qualified person.
- Always land loads on adequate blocking/dunnage.
- Never pull a sling out from under a load when the load is resting on the sling.
- Tag lines are required on loads.
- Special custom design spreader bars shall be marked to indicate the safe working loads and shall be proof tested prior to use to 125% of their rated load Alloy Steel Chain Slings
- Must have permanent markings of capacity rating, grade, size, length (reach) and manufacturer.
- Must be alloy steel of grade 80 or 100
- Do not use worn or damaged alloy steel chain slings or attachments.
- Inspections based on frequency, severity, and type of use (never less often than every 12 months). Must document inspections.

Wire Rope Slings

- Wire rope slings must be removed from service when:
 - 10 broken wires in 1 lay
 - 5 broken wires in 1 strand 1 lay
 - Severe abrasion
 - 1/3 wear of outside wire
 - Heat damage
- Nylon Slings must have legible tag. Remove from service when:
 - Signs of heat damage
 - Red warning threads showing

Job or shop hooks and links, or makeshift fasteners, formed from bolts, rods or other such attachments will not be used in rigging "systems". [1926.251(b)(3)]

When U-bolts are used for eye splices, the U-bolt will be applied so the "U" section is in contact with dead end of rope. [1926.251(c)(5)(i)] Never "saddle a dead horse".



Section 42 - WELDING / CUTTING / “HOT WORK”

42.1 Purpose

“Hot” work is any work that involves burning, welding, using fire- or spark-producing tools, or that produces a source of ignition.

42.2 Goal

Through training of employees in hazard recognition, a safe and efficient method to provide a safe worksite is devised prior to welding, cutting and/or “Hot” work and maintained throughout the length of the operations.

42.3 Policy

Precautions taken shall be in the form of a written permit. Before welding/cutting is permitted, the area for operations shall be inspected and a written permit (“Hot” work permit) shall be used to authorize welding and cutting operations.

A permit must be completed and approved prior to the work being performed daily.

If welding/cutting cannot be conducted safely, it shall not be performed.

42.3.1 Roles and Responsibility

The “Competent Person” has the training required by OSHA to recognize potential hazards during “hot” work, and has the authority to take corrective action, including but not limited to: stopping operations and providing safe methods of protection.

All employees of RALIN have the authority to identify and prevent potential unsafe conditions and are to report such conditions to the “Competent Person” or the superintendent within 15 minutes of the observation.

Trades performing work for RALIN must have Competent Persons available on the worksite. Trades must also employ safe methods of protecting employees from hazards—the same as those followed by RALIN

42.3.2 Training

All personnel working in environments likely to expose them to this program’s intent shall be trained to recognize hazards associated with welding, cutting and “Hot” work such as individuals performing welding/cutting.

Individuals performing welding/cutting must be suitably trained in the safe operations of their equipment and the safe use of the process.

Employees shall have adequate training and proper authorization prior to performing welding, cutting and/or “Hot” work operations. Training must include:

- Orientation;
- “Competent Person” Training;
- Safety Review of Jobsite;
- Refresher Training (if required);



- Use of Protective Systems Review; and
- Proper methods of protection.

Retraining of employees is required where changes at the worksite present a hazard about which an employee has not been previously trained; or where changes in the types of welding, cutting and “Hot” work present a hazard about which an employee has not been previously trained; or where inadequacies in an affected employee's work involving welding, cutting and “Hot” work indicate that the employee has not retained the requisite proficiency.

Training and retraining will be certified/ documented in accordance with American National Standards Institute (ANSI) Z490.1 – 2009, Section 7.2.2 which recommends the following be documented: date, location, duration of training; name and description of training; delivery materials used, names of trainees participating; and names of trainees successfully completing the training.

42.3.3 Inspection

Daily inspections of equipment and work areas shall be made by a competent person for evidence of a situation that could result in hazardous atmospheres or other hazardous conditions. An inspection shall be conducted by a competent person prior to the start of work and as needed throughout the shift.

Operators of equipment should report any equipment defect or safety hazards and discontinue use of equipment until its safety has been assured. Repairs shall be made only by qualified personnel.

Inspections must be documented via a superintendent's log, etc.

A competent person has training, knowledge, and authority to identify hazards and take immediate corrective action.

42.3.4 Fire Protection or Watch

Assigned fire watchers must be trained in the use of fire extinguishing equipment and familiar with the facilities for sounding an alarm in the event of a fire. See section 22.3.2

A fire watch shall be maintained at least a half an hour after the welding or cutting operation was completed.

42.3.5 Oxygen and Acetylene Cutting Torch Safety

Each manufacturer suggests different gauge pressure settings according to the different types of tips and gases used.

The normal setting on a #2 tip with Victor gauges and torch set is:

- 40 PSI Oxygen and
- 10 PSI Acetylene.

Torch tip has (6) openings around the outer edge and (1) opening in the center. The outer edge is for preheating the metal. The center opening is for cutting the metal.



There are (4) basic gases for cutting metals:

- Acetylene;
- MAPP;
- HEF (High Energy Fuel); and
- Natural Gas, Propane, etc.

Acetylene is the hottest gas (5600 degrees F) while Natural gas is the coldest gas (4500 degrees F)

All gauges have a red line on the acetylene gauge that should never be exceeded.

Acetylene is unstable at 15 PSIG (Pounds per square inch at the gauge).

99% of all metals being cut are 1/8" to 1 1/4" in thickness. A #1 or #2 tip should be adequate for these types of cuts.

42.3.6 Acetylene Use

An acetylene cylinder has a porous material in the tank saturated with acetylene to make acetylene a stable gas to use in cylinders, which are pressurized above 15 PSIG (generally 250 PSIG in the tank).

An acetylene cylinder cannot have more than 1/7 of its capacity consumed within a short period of time or the acetylene will begin to separate from the porous material within the tank and mix with the acetylene gas as it exits the tank.

Never lay an acetylene cylinder on its side.

If the cylinder is laid on its side, the cylinder must be placed in an upright position (vertical) for the same amount of time it was in a horizontal position.

42.3.7 Oxygen Use

Oxygen is 99% pure which provides a proper mix of gases when cutting.

An oxygen tank is generally filled to 2,200 – 2,400 PSIG.

Never blow clothing off with oxygen because oxygen will adhere to clothing for several minutes and can be ignited very easily.

42.3.8 Valves / Regulators

Never oil the O-rings in the regulators.

Oxygen and oil do not mix and will cause heat of recompression and can explode.

Two sides to regulators:

- High Pressure (tank) and
- Low Pressure (torch)



42.3.9 Lighting the Torch

- Always stand with the regulator between you and valve on the tank.
- Always back out the adjusting screws on the regulators before opening the valves.
- Always open the valve slowly at first.
- Turn the oxygen tank valve approximately 4-6 turns.
- Always purge the torch before lighting.
- Never light the torch with a cigarette or butane lighter. There is enough gas in a single butane lighter to explode and seriously injure you.
- Remember when oxygen and acetylene mix, they create a temperature of approximately 5,600 degrees F instantly.
- Always use an appropriate striker to light a torch.
- Always adjust the torch for a good neutral flame to cut material.

42.3.10 Turning off the Torch

Always turn off the fuel side first, then the oxygen side.

Three steps to turn off a torch:

- Shut off tanks;
- Bleed off lines, back off adjusting screws; and
- Turn off torch head.

If gauges do not fall to zero, then there is a leak.

42.3.11 General safety Tips

A "rose bud" heating tip will cause the consumption of more than 1/7 the capacity during a short period of time.

Different size tips require different amounts of PSIG never exceed 15 PSIG.

Three items to start a fire:

- Ignition;
- Fuel; and
- Oxygen

Never transport cylinders without safety caps in place. When changing cylinders:

- Disconnect gauges;
- Assure safety caps are in place;
- Untie cylinder from cart;
- Remove and store empty cylinders in secured upright position;
- Oxygen and fuel cylinders must be separated by 20 feet or by a ½ hour fire rated wall that is 5 feet high; and



- Cylinders must be secured on a truck, cart, or other device while in use and must remain upright.

Employers shall instruct employees in the safe means of arc welding and cutting equipment. [1926.351(d)]

When practical, objects to be welded, cut, or heated shall be moved to a designated safe location, or if the objects to be welded, cut or heated cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place, or otherwise protected. [1926.352(a)]

Proper precautions (isolating welding and cutting, removing fire hazards from the vicinity, providing a fire watch, etc.) for fire prevention shall be taken in areas where welding or other “hot work” is being done. No welding, cutting or heating will be done where application of flammable paints, or presence of other flammable compounds, or heavy dust concentrations, creates a fire hazard. Equip torches with anti-flashback devices.

All arc welding and cutting cables shall be completely insulated and capable of handling the maximum current requirements for the job. There shall be no repairs or splices within ten (10) feet of the electrode holder, except where splices are insulated, equal to the insulation of the cable. Defective cable shall be repaired or replaced.

[1926.351(b)(1) & (b)(2)]

Fuel gas and oxygen hose shall be easily distinguishable and shall not be interchangeable. Hoses shall be inspected at the beginning of each shift and shall be repaired or replaced if defective. [1926.350(f)(1) & (f)(3)]

General mechanical or local exhaust ventilation or air-line respirators shall be provided, as required, when welding, cutting or heating:

- Zinc, lead, cadmium, mercury, or beryllium bearing, based or coated material in enclosed spaces;
- Stainless steel with inert-gas equipment;
- In confined spaces; or
- Where an unusual condition can cause an unsafe accumulation of contaminants [1926.353(b)(1),(c)(1) through (c)(2) & (d)(1)(iv)]

Arc welding and cutting operations will be shielded by non-combustible or flameproof shields to protect employees from direct arc rays. When electrode holders are left unattended, electrodes will be removed, and holder will be placed or protected so they cannot make electrical contact. All arc welding and cutting cables will be completely insulated. Defective cable will be repaired or replaced. [1926.351]

Remove electrodes from unattended electrode holders. [1926.351(d)(1)]

Welding electrode stubs shall be collected in metal containers and not dropped on the floor or other walking/working surface.

Torches shall be lighted ONLY by friction lighters or other approved devices. [1926.350(g)(3)] Cigarette lighters and/or matches are NOT approved lighting devices!



Section 43 – DEMOLITION

43.1 Purpose

Construction personnel performing demolition work are exposed to many hazardous conditions and materials. Although a contractor may be concerned about employee safety, there should also be heightened awareness for the safety of the general public and the property of others.

43.2 Policy

All RALIN employees, contractors and subcontractors must follow the requirements of this program during all demolition projects. This program outlines control measures contractors must implement as part of their existing program to plan for a successful and safe demolition project. Those supervising demolition activities should be familiar with the OSHA 29CFR1926, Subpart T, and all state and local requirements that apply to demolition work. RALIN subcontracts hazardous material handling, abatement, demolition and equipment to competent demolition contractors.

43.3 Demolition Safety Requirements

All contractors adhere to safe work practices. Before beginning any demolition work, an Engineering Survey Report is required. Once demolition work has started, there will be additional safety requirements for various activities. A Competent Person is required to conduct the Engineering Survey prior to beginning any demolition work. The purpose of the Engineering Survey is to thoroughly evaluate the project to identify potential hazards and develop controls to prevent accidents. Potential hazards include:

- Occupational Health Hazards
- Cave-ins
- Explosions
- Premature Collapse
- Fire

Contractors must have written evidence that an Engineering Survey was conducted and retain that report on-site.

For contractors that perform demolition work on an infrequent basis, it is recommended that a Safety Consultant's services be contracted for the demolition work.

All personnel involved in demolition work should be briefed on the ANSI A10.6 Safety Requirements for Demolition.

43.4 Engineering Survey Report

RALIN or the client shall prepare specific documentation that records the Engineering Survey results before starting demolition activities. The Engineering Survey Report shall be prepared, signed and dated by the competent person conducting the survey. At a minimum, the Engineering Survey Report must include:

- Building characteristics
- Construction type & structure size
- Number of stories or height
- Structural hazards
- Basements & confined spaces

- Party wall locations
- Wall tie requirements & number
- Shoring requirements for adjacent structures
- Type of shoring & location
- Protection requirements for adjacent structures
- Demolition methods that will be used
- Public protection required
- Pedestrian walkways or roadways that may need to be relocated.
- Walkways or roadways should be well lit & kept clear of equipment & debris.
- Sidewalk sheds may be necessary to protect pedestrians from overhead hazards.
- Special controls or procedures may be necessary if a portion of the structure is occupied.
- If the project is entirely protected with security fencing, the gates should be kept closed at all times throughout the demolition work.

43.5 Demolition Techniques / Protection Methods

43.5.1 Overhead & underground utility protection is required

- The location of all electric, gas, water, sewer & communications lines should be identified & the lines shut off before work is started.
- The National Association of Demolition Contractors recommends that utility lines be color-coded: Red, if the lines are to stay. Green, if the lines are to be removed.
- The local one-call system should be notified.

43.5.2 Above & Below-ground tanks should be protected

- Purging & testing of these tanks should be completed
- Locations of pits or open holes should be identified and barricaded
- EPA requirements must be identified & complied with
- If hazardous materials are found, responsibilities should be assigned to the appropriate contractor(s) for removal & disposal of the materials.
- Asbestos & other materials may be in furnaces, reactors, boilers, insulation, other fire protection materials, certain types of floors and ceiling tiles.
- Lead may be in pipe systems & with lead-based paints.
- Polychlorinated biphenyls may be in electrical systems such as transformers & capacitors.

43.5.3 Existing damage to nearby structures

- This damage should be documented. Photographs and/or videotape can be taken to supplement documentation.
- The documentation should be dated & retained with the Engineering Survey Report.

43.5.4 Blasting

If the use of explosives is required for the demolition project, the Competent Person must be familiar with the OSHA standard 29CFR1926, Subpart U, blasting safety requirements.



43.5.5 Noise Protection

The goal of noise monitoring and protection is to ensure that employees eliminate potential hearing loss through proper workplace assessments and, if required, PPE. Please refer to Section 35 – Noise Exposure / Hearing Conservation of RALIN EHS Program for detail guidelines.

43.5.6 Fire prevention & protection

- Fire can be a serious threat at demolition sites, potential sources of ignition should be identified.
- The Fire Department must be able to gain access to any part of the jobsite, as well as fire hydrants.
- Ample supplies of portable fire extinguishers must be available.
- Restrict smoking, open flames and spark producing operations to specific, safe areas.
- A fire warning system must be in place so that personnel can be quickly notified and evacuated in the event of a fire.

43.6 Tools & Equipment Use

All tools & equipment to be used should be inspected before every use for any defects, protection systems, power requirements, training requirements, etc. For details on equipment use please refer to Section 17, 26 and 32 of RALIN EHS Program.

43.7 Safety Report

The Safety Report identifies and plans specific safe work procedures and practices and safety equipment that should be in place when demolition activities begin. The Safety Report should be tailored to the specific demolition job tasks being undertaken. The Safety Report can be included with the Engineering Survey Report.

Items that must be covered in the Safety Report include:

- Confirmation that the Engineering Survey Report is read by jobsite supervisory personnel and reviewed by craft personnel.
- Notification of medical personnel, fire department, utility companies & local authorities that their services are required for the demolition.
- Posting of emergency telephone numbers for all these services at all telephone locations. • A comprehensive plan for confined space work and other identified hazards & exposures.
- Appropriate personal protective equipment (PPE) is available on-site.
- Securing the project site perimeter & posting of warning signs.



Section 44 - Exposure Prevention, Preparedness, and Response for COVID-19

44.1 Purpose/Policy

RALIN takes the health and safety of our employees very seriously. With the spread of the coronavirus or “COVID-19,” a respiratory disease caused by the SARS-CoV-2 virus, the Company must remain vigilant in mitigating the outbreak. In order to be safe and maintain operations, we have developed this COVID-19 Exposure Prevention, Preparedness, and Response Plan to be implemented, to the extent feasible and appropriate, throughout the Company and at all of our jobsites. The Company has also identified a team of employees to monitor the related guidance that U.S. Center for Disease Control and Prevention (“CDC”) and Occupational Safety and Health Administration (“OSHA”) continue to make available.

This Plan is based on information available from the CDC and OSHA at the time of its development and is subject to change based on further information provided by the CDC, OSHA, and other public officials. The Company may also amend this Plan based on operational needs.

44.2 Responsibility of Managers and Supervisors

All managers and supervisors must be familiar with this Plan and be ready to answer questions from employees. Managers and supervisors must set a good example by following this Plan at all times. This involves practicing good personal hygiene and jobsite safety practices to prevent the spread of the virus. Managers and supervisors must encourage this same behavior from all employees.

44.3 Responsibility of Managers and Supervisors

The Company is asking every one of our employees to help with our prevention efforts while at work. In order to minimize the spread of COVID-19 at our jobsites, everyone must play their part. As set forth below, the Company has instituted various housekeeping, social distancing, and other best practices at our jobsites. All employees must follow these. In addition, employees are expected to report to their managers or supervisors if they are experiencing signs or symptoms of COVID-19, as described below. If you have a specific question about this Plan or COVID-19, please ask your immediate supervisor. If they cannot answer the question, please contact the Safety Manager or HR Manager.

OSHA and the CDC have provided the following control and preventative guidance for all workers, regardless of exposure risk:

- Frequently wash your hands with soap and water for at least 20 seconds. When soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol.
- Avoid touching your eyes, nose, or mouth with unwashed hands.
- Follow appropriate respiratory etiquette, which includes covering for coughs and sneezes.
- Avoid close contact with people who are sick.
- Social Distancing should be practiced, if not possible face coverings should be worn.

In addition, employees must familiarize themselves with the symptoms of COVID-19, which include the following:



- Coughing;
- Fever;
- Shortness of breath, difficulty breathing; and
- Early symptoms such as chills, body aches, sore throat, headache, diarrhea, nausea/vomiting, and runny nose.

If you develop a fever and symptoms of respiratory illness, such as cough or shortness of breath, DO NOT GO TO WORK and call your supervisor and healthcare provider right away. Likewise, if you come into close contact with someone showing these symptoms, call your supervisor and healthcare provider right away. In both cases, the supervisor should contact safety manager or HR manager immediately after notification.

44.4 Jobsite Protective Measures

The Company has instituted the following protective measures at all jobsites.

A. General Safety Policies and Rules

- Any employee/contractor/visitor showing symptoms of COVID-19 will be asked to leave the jobsite and return home.
- Safety meetings will be by telephone, if possible. If safety meetings are conducted in-person, attendance will be collected verbally, and the subcontractor foreman/superintendent will sign-in each attendee. Attendance will not be tracked through passed-around sign-in sheets or mobile devices. During any in-person safety meetings, avoid gathering in groups of more than 10 people and participants must remain at least six (6) feet apart. Photo documentation of sign-in sheets can be emailed or texted to the RALIN Superintendent. The RALIN Superintendent will upload in the photo tab on Pro-Core.
- Employees must avoid physical contact with others and shall direct others (co-workers/contractors/visitors) to increase personal space to at least six (6) feet, where possible. Where work trailers are used, only necessary employees should enter the trailers and all employees should maintain social distancing while inside the trailers. Regardless, office trailer doors will be locked to control and limit access.
- All in-person meetings will be limited. To the extent possible, meetings will be conducted by telephone or video conference.
- Employees will be encouraged to stagger breaks and lunches, if practicable, to reduce the size of any group at any one time to less than ten (10) people.
- Employees should limit the use of co-worker's tools and equipment. To the extent tools must be shared, the Company will provide alcohol-based wipes to clean tools before and after use. When cleaning tools and equipment, consult manufacturing recommendations for proper cleaning techniques and restrictions.
- Employees are encouraged to limit the need for N95 respirator use, by using engineering and work practice controls to minimize dust. Such controls include the use of water delivery and dust collection systems, as well as limiting exposure time.
- The Company will divide crews/staff into two (2) groups where possible so that projects can continue working effectively in the event that one of the divided teams is required to quarantine.



- Employees are encouraged to minimize ridesharing. While in vehicles, employees must ensure adequate ventilation.
- If practicable, each employee should use/drive the same truck or piece of equipment every shift.
- In lieu of using a common source of drinking water, such as a cooler, employees should use individual water bottles.
- Jobsites will post reminders for all workers to report all injuries and illness immediately to the Company. Additionally, federal posters regarding hygiene best practices and works rights (WH1422 non-federal) will be posted in the job office.
- All jobsites will provide a COVID-19 toolbox topic for all workers on site and document attendance with the agenda.
- Superintendents will review all subcontractors JSAs regarding when required to evaluate proper adherence and enforcement of the physical distancing CDC guidelines for all workers on site.
- Superintendents will review the subcontractor's daily report each day and ensure the subcontractor list all employees and confirm if there are any workers exhibiting COVID-19 symptoms on site. Subcontractors not completing daily reports with this information shall not be permitted to work on site.
- Superintendents will have all hourly employees sign weekly injury and illness statement at the end of the workday on Friday. Employees that have not signed the weekly injury statement shall not be permitted to work.
- All jobsites will be equipped with a rented hand washing station for all workers. If hand washing stations are not available, a wash station can be constructed (with water connection, drain, soap and paper towels) If a handwashing station is not feasible, alcohol-based hand sanitizer will be made available.

B. Workers entering Occupied Building and Homes

- Everyone working within such establishments should evaluate the specific hazards when determining best practices related to COVID-19.
- During this work, employees must sanitize the work areas upon arrival, throughout the workday, and immediately before departure. The Company will provide alcohol-based wipes or spray cleaner for this purpose.
- Employees should ask other occupants to keep a personal distance of six (6) feet at a minimum. Workers should wash or sanitize hands immediately before starting and after completing the work.

C. Job Site Visitors

- Communicate the screening process to workers on site. Require everyone entering the jobsite to complete the initial screening questionnaire.
- Establish safe entry point protocols for screening process on site.
- Screener must maintain 6' distance while completing the questionnaire portion of the form and wear appropriate PPE (and / or establish physical barrier controls) during the retrieval of the questionnaire.
- Ensure the confidentiality for anyone submitting to the questionnaire and maintain records in a secure location



- Deny entry to anyone that answers yes to the any of the questions or refuses to submit to the initial screening questionnaire. Maintain a record of those denied access.

D. Personal Protective Equipment and Work Practice Controls

- In addition to regular PPE for workers engaged in various tasks (fall protection, hard hats, hearing protection), the Company will also provide:
 - Gloves: Gloves should be worn at all times while on-site. The type of glove worn should be appropriate to the task. If gloves are not typically required for the task, then any type of glove is acceptable, including latex gloves. Employees should avoid sharing gloves.
 - Eye protection: Eye protection should be worn at all times while on-site.
 - Social Distancing practices should be followed. If this is not possible then face coverings should be worn. These are not respirators or N95's. Please save the N95's for the tasks they are needed.
- Due to the current shortage of N95 respirators, the following Work Practice Controls should be followed:
 - Keep dust down by using engineering and work practice controls, specifically through the use of water delivery and dust collection systems.
 - Limit exposure time to the extent practicable.
 - Isolate workers in dusty operations by using a containment structure or distance to limit dust exposure to those employees who are conducting the tasks, thereby protecting nonessential workers and bystanders.
 - The CDC has stated that during a public health emergency, facemasks (N95's) may be reserved for healthcare workers. You may be required to wear a respirator that is stronger than an N95.
 - Institute a rigorous housekeeping program to reduce dust levels on the jobsite.

44.5 Jobsite Cleaning and Disinfecting

The Company has instituted regular housekeeping practices, which include cleaning and disinfecting frequently used tools and equipment, and other elements of the work environment, where possible. Employees should regularly do the same in their assigned work areas.

- Jobsite trailers and break/lunchroom areas will be cleaned a couple of times per day. Employees performing cleaning will be issued proper personal protective equipment ("PPE"), such as nitrile, latex, or vinyl gloves and gowns, as recommended by the CDC.
- Any trash collected from the jobsite must be changed frequently by someone wearing nitrile, latex, or vinyl gloves.
- Any portable jobsite toilets should be cleaned by the leasing company at least twice per week and disinfecting on the inside. Frequently touched items (i.e. door pulls and toilet seats) will be disinfecting frequently.
- Vehicles and equipment/tools should be cleaned at least once per day and before change in operator or rider.
- OSHA has indicated that a reliable report that an employee has tested positive for COVID-19 does not typically require an employer to perform special cleaning or decontamination of work environments,



unless those environments are visibly contaminated with blood or other bodily fluids.¹ Notwithstanding this, the Company will clean those areas of the jobsite that a confirmed-positive individual may have contacted and it will do so before employees can access that work space again. The company's COVID-19 task force will review appropriate measures required in the event of a confirmed positive case is reported on site.

- The Company will ensure that any disinfection shall be conducted using one of the following:
 - Common EPA-registered household disinfectant;
 - Alcohol solution with at least 60% alcohol; or
 - Diluted household bleach solutions (if appropriate for the surface).

44.6 Jobsite Exposure Situations

Employee Exhibits COVID-19 Symptoms or tests Positive for COVID-19

If an employee exhibits COVID-19 symptom, the employee must notify their supervisor, safety manager or HR manager immediately, remain at home until he or she is symptom free for 72 hours (3 full days) without the use of fever-reducing or other symptom-altering medicines (e.g., cough suppressants). If you have a fever, cough or [other symptoms](#), you might have COVID-19. You must be able to do all 3 of the steps below to be able to return to work:

- 3 days with no fever **and**
- Respiratory symptoms have improved (e.g. cough, shortness of breath) **and**
- 10 days since symptoms first appeared

Most people have mild illness and are able to recover at home. If you think you may have been exposed to COVID-19, contact your healthcare provider.

- Keep track of your symptoms.
- **If you have an [emergency warning sign](#) (including trouble breathing),** get emergency medical care immediately.

The Company will similarly require an employee who reports to work with symptoms to return home until he or she is symptom free for 72 hours (3 full days). To the extent practical, employees are required to obtain a doctor's note clearing them to return to work.

Employee Has Close Contact with an Individual Who Has Tested Positive for COVID-19

Employees who have come into close contact with an individual who has tested positive for COVID-19 (co-worker or otherwise with valid test results) must notify their supervisor, safety manager or HR manager immediately, and may be directed to do the above or return to work and wear a mask. Close contact is defined as six (6) feet for a prolonged period of time (15 minutes).

If the Company learns that an employee has tested positive, the Company will conduct an investigation to determine co-workers who may have had close contact with the confirmed-positive employee. If applicable, the Company will also notify any sub-contractors, vendors/suppliers or visitors who may have had close contact with the confirmed-positive employee. If an employee learns that he or she has come into close contact with a confirmed-positive individual outside of the workplace, he/she must alert a manager or supervisor of the close contact.



44.7 Confidentiality/Privacy

Except for circumstances in which the Company is legally required to report workplace occurrences of communicable disease, the confidentiality of all medical conditions will be maintained in accordance with applicable law and to the extent practical under the circumstances. When it is required, the number of persons who will be informed that an unnamed employee has tested positive will be kept to the minimum needed to comply with reporting requirements and to limit the potential for transmission to others. The Company reserves the right to inform other employees that an unnamed co-worker has been diagnosed with COVID-19 if the other employees might have been exposed to the disease so the employees may take measures to protect their own health. The Company also reserves the right to inform sub-contractors, vendors/suppliers or visitors that an unnamed employee has been diagnosed with COVID-19 if they might have been exposed to the disease so those individuals may take measures to protect their own health.

44.8 General Questions

Given the fast-developing nature of the COVID-19 outbreak, the Company may modify this Plan on a case by case basis. If you have any questions concerning this Plan, please contact the Safety Manager or HR Manager.

44.9 COVID-19 Checklists for Employers and Employees

- **Know the Symptoms of COVID-19**
 - Coughing, fever, shortness of breath, and difficulty breathing.
 - Early symptoms may include chills, body aches, sore throat, headache, diarrhea, nausea/vomiting, and runny nose. If you develop a fever and symptoms of respiratory illness, DO NOT GO TO WORK and call your supervisor and health-care provider immediately. Do the same thing if you come into close contact with someone showing these symptoms.
- **Employer Responsibilities**
 - Develop a COVID-19 Exposure Action Plan.
 - Conduct safety meetings (toolbox talks) by phone if possible. If not, instruct employees to maintain 6-feet between each other. The foreman/supervisor will track attendance verbally rather than having employees sign an attendance sheet.
 - Access to the job site and work trailer will be limited to only those necessary for the work.
 - Employees, contractors, and visitors will be asked to leave the jobsite and return home if they are showing symptoms.
 - Provide hand sanitizer and maintain Safety Data Sheets of all disinfectants used on site.
 - Provide protective equipment (PPE) to any employees assigned cleaning/disinfecting tasks.
- **Employee Responsibilities**
 - DO NOT COME TO WORK SICK. STAY HOME. Contact the Safety Manager or HR Manager immediately if you have COVID-19 symptoms.
 - Become familiar with the Exposure Action Plan and follow all elements of the Plan.
 - Practice good hygiene: wash hands with soap and water for at least 20 seconds. If these are not available, use alcohol-based hand rub with at least 60% alcohol. Avoid touching your face, eyes, food, etc. with unwashed hands.
- **Cleaning/Disinfecting Job Sites and Other Protective Measures**
 - Clean and disinfect frequently used tools and equipment on a regular basis. This includes other elements of the jobsite where possible. Employees should regularly do the same in their assigned work areas.
 - Frequently clean shared spaces such as trailers and break/lunchrooms daily.
 - Frequently disinfect shared surfaces (door handles, machinery controls, etc.) daily.



- Avoid sharing tools with co-workers. If not, disinfect before and after each use.
- Arrange for any portable job site toilets be cleaned by the leasing company at least twice per week and disinfected on the inside.
- Trash collected from the jobsite must be changed frequently by someone wearing gloves.
- **Personal Protective Equipment and Alternate Work Practice Controls**
 - Provide and wear the proper PPE.
 - Keep the dust down by using engineering and work practice controls, specifically through the use of water delivery and dust collection systems.

44.10 Toolbox Talk on Exposure to The Coronavirus May 7, 2020

Here are the important things you need to know about COVID-19

Symptoms

Coronavirus disease (COVID-19) is characterized by mild to severe symptoms which may include:

- Cough
- Shortness of breath or difficulty breathing

Or at least two of these symptoms:

- Fever
- Chills
- Repeated shaking with chills
- Muscle pain
- Headache
- Sore throat
- New loss of taste or smell

More rarely, the disease can be fatal. Older people, and people with other medical conditions (such as asthma, diabetes, or heart disease), may be more vulnerable to becoming severely ill.

How is it Spread

The main way that the virus is spread is through Person-to-person contact. Transmission typically occurs when someone with the virus sneezes or coughs on you, leaving respiratory droplets on your skin or clothing, or you touch someone who has the virus or their skin or clothing.

It can also be from touching an area where someone sneezed or coughed in a common area. When you touch these areas and then touch your face, this gives the virus an entry point via your mouth.

Best Practices for Control

- Do not report to work if you are sick or have COVID-19 symptoms
- Maintain 6' physical distance from other workers and avoid any prolonged contact
- Avoid large gatherings of 10 or more
- Always wear a cloth face covering per the CDC when working around others on site
- Do not share tools or equipment
- Wash hands frequently for 20 seconds or use hand sanitizer with at least 60% alcohol



content

- Cover coughs and sneezes and wash hands afterwards
- Avoid touching your face

The website below is also a good tool for more information on the virus.

<https://www.cdc.gov/coronavirus/2019-ncov/prepare/prevention.html>



44.11 COVID-19 Initial Screening Questionnaire

COVID-19 INITIAL SCREENING QUESTIONNAIRE

IMPORTANT: THE SCREENER SHOULD IMMEDIATELY STOP THE SCREENING AND DENY ACCESS TO ANY INDIVIDUAL WHO ANSWERS YES TO ANY SCREENING QUESTION.

For jobsite access approval:

Have you been confirmed positive for COVID-19? <input type="checkbox"/> Yes <input type="checkbox"/> No
Are you currently experiencing, or recently experienced, any acute respiratory illness symptoms such as fever, cough, or shortness of breath? <input type="checkbox"/> Yes <input type="checkbox"/> No
Have you been in close contact (more than 15 minutes at a distance less than 6') with any persons who have been confirmed positive or exhibiting symptoms of COVID-19? <input type="checkbox"/> Yes <input type="checkbox"/> No
All employees, vendors, contractors, inspectors and visitors must submit to a temperature check. Is Temperature 100.4°F or above? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, record temperature here: _____)

Individuals who answer YES to ANY question on the Initial Screening Questionnaire OR have a temperature of 100.4°F [38°C] OR refuse to participate in the screening process must be denied access to the jobsite.

Name of Individual Seeking Access _____

Access Determination _____ Approved _____ Denied

Name of staff completing form _____ Date: _____ Time: _____

For jobsite access approval:

Have you been confirmed positive for COVID-19? <input type="checkbox"/> Yes <input type="checkbox"/> No
Are you currently experiencing, or recently experienced, any acute respiratory illness symptoms such as fever, cough, or shortness of breath? <input type="checkbox"/> Yes <input type="checkbox"/> No
Have you been in close contact (more than 15 minutes at a distance less than 6') with any persons who have been confirmed positive or exhibiting symptoms of COVID-19? <input type="checkbox"/> Yes <input type="checkbox"/> No
All employees, vendors, contractors, inspectors and visitors must submit to a temperature check. Is Temperature 100.4°F or above? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, record temperature here: _____)

Individuals who answer YES to ANY question on the Initial Screening Questionnaire OR have a temperature of 100.4°F [38°C] OR refuse to participate in the screening process must be denied access to the jobsite.

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