Laney Companies, Inc.
Written Safety Program Manual

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January 2019, Revision

SECTION 1 SIGNATURE SHEET AND INTRODUCTION

Welcome to The Laney Companies, Inc. hereafter referred to as “Laney Company”. It is the policy of this company that every employee is entitled to work under the safest possible conditions. With this in mind, every reasonable effort will be made in the interest of accident prevention and health preservation.

It is necessary that each employee be aware of their responsibility as it relates to work related safety and health practices. Pursuant to Laney Companies commitment to maintain a safe workplace, the company has developed certain safety and health policies. This statement is a brief overview of the main aspects of the company's safety and health activity.

This comprehensive written safety program will be reviewed at least annually, or as conditions of the workplace or hazards change; whichever occurs sooner.

This company will endeavor to maintain a safe and healthy workplace. We will accomplish this by complying with local, state and federal regulations. In order to provide safe working equipment, the necessary personal protection equipment and in the case of injury, timely first aid and medical services will be afforded to employees.

It is our belief that incidents, which injure people, damage equipment and destroy materials cause needless personal suffering, inconvenience and expense. Employees are responsible for the exercising of maximum care and good judgment. The practice of working safely belongs to **all employees**.

Within this company, we all share the safety responsibility and everyone will be asked to participate in the company loss-control effort. To ensure this will remain viable and visible, we have and will continue to institute specific programs for the safety and wellbeing of all employees. Our management’s door is always open to you to discuss any violations of our programs or any improvements we can make them.

All health and safety policies are administered by the Safety Director.

Comments and questions can be directed to either your supervisor or to the corporate office:

The Laney Companies, Inc.
5941 Bartholow Road Suite A
Eldersburg, MD 21784
Safety Contact: David Mayo, Safety Director
410-795-1761 X228

Introduction

Laney Companies is committed to providing and maintaining a safe and healthy working environment for all employees. All Laney Company employees and subcontractors are responsible for knowing, understanding, and observing all applicable safety regulations and safe work practices that will safeguard them, fellow employees, and the public.

In the case of incidents that result in injury, regardless of how insignificant the injury may appear, employees should immediately notify the appropriate supervisor. Such reports are necessary to comply with laws and initiate insurance and workers' compensation benefits procedures.

The purpose of this handbook is to provide employees with general rules for safe work procedures. It is recognized that publication of this handbook alone will not ensure a safe work environment. That will be accomplished only through the cooperative efforts of supervisors and employees working together to continuously promote safety awareness and safe work practices.

This program will be reviewed with all new employees of The Laney Companies at the time of hire through the new-hire orientation. No employees will be permitted to work without receiving training on the safety and health hazards they may face on jobsites. Additionally, periodic and refresher training may occur as new safety policies and procedures are established by Laney Companies.

Some of the best safety improvement ideas come from employees. Those with ideas, concerns, or suggestions for improved safety in the workplace are encouraged to raise them with a supervisor, or bring them to the attention of the management team. Reports and concerns about workplace safety issues may be made anonymously if the employee wishes. All reports can be made without fear of reprisal.

Each employee is expected to obey safety rules and to exercise caution in all work activities. Employees must immediately report any unsafe condition to the appropriate supervisor.

As stated in Section 1: The Laney Companies reviews this safety program annually and performs a self-audit and evaluation to ensure that all identified hazards facing our employees are accounted for and addressed in our written procedures. When auditing our safety program, the safety director, David Mayo, will assemble a team to review applicable OSHA and MOSH regulations to ensure up-to-date compliance with regulations and best industry safety practices. Additionally, if program deficiencies are identified in post-incident investigation, reviews of this program will be conducted more frequently. Employees will be retrained on any new or revised policies or procedures affecting their safety on the jobsite. The Safety Department will also review employee complaints, near miss incidents or actual injuries to identify areas of needed improvement in safety policies, training or supervision and compliance.

General Laney Company Safety Rules:

- Seatbelts must be worn at all times in company vehicles and equipment.
- Safety Footwear meeting ASTM F-2412-2005 and ASTM F-2413-2005 must be worn at all times.
- A shirt with a minimum of 4" sleeve must be worn; no sleeveless shirts are permitted.

- Any employee found not using their issued personal protection equipment, when required, will be subject to the disciplinary action and/or the penalty established by customer.

SECTION 2 SAFETY AND HEALTH POLICY & TRAINING

The primary objective of management is to provide healthy and safe working conditions for all employees. To aid in achieving this objective, Laney Companies will implement a functional incident prevention program that will attempt to eliminate known safety hazards in our facility and on our jobsites. The company goal is that all unsafe acts and conditions be immediately detected and corrected to the extent that safety awareness and safety practice in all operations becomes the first concern of all Laney Company employees.

Success of an incident free work environment requires both Laney Company employees and subcontractor employees to maintain a safe working environment and utilize safe work methods, in accordance with the Laney Company Safety Program, and applicable state and Federal Occupational Safety and Health laws, including but not limited to OSHA's 29 CFR 1910 OSHA General Industry Regulations and 29 CFR 1926 Construction Regulations.

The Laney Company Safety Manual is available for our employees and supervisors to better understand the company's safety and health program, and to supplement their efforts toward achieving compliance with OSHA and MOSH Standards in the workplace.

This safety plan has been developed to apply, as nearly practical, uniformly to all construction activities on our sites. Safety compliance education is a key component to the success of our safety program.

Employee Involvement

The Laney Companies believes that our workers are the persons most in contact with potential safety and health hazards on our jobsites. These workers have a vested interest in effective safety protection programs. By involving our employees in safety-related decisions, we have the advantage of the company's wider range of experience of our workforce.

Laney Company encourages our workers to be involved in improving the safety and health of our jobsites. This is strongly supported by Laney Company management. Employees can participate in the company's goal of achieving zero-injuries on our jobsites by:

- Participating on joint labor-management committees and other advisory or specific purpose committees.
- Conducting site inspections.
- Analyzing routine hazards in each step of a job or process, and preparing safe work practices or controls to eliminate or reduce exposure.
- Developing and revising the site safety and health rules.
- Training both current and newly hired employees.
- Providing programs and presentations at safety and health meetings.
- Conducting incident investigations.
- Reporting hazards.
- Fixing hazards within your control.

- Supporting your fellow workers by providing feedback on risks and assisting them in eliminating hazards.
- Participating in incident investigations.
- Performing a pre-use or change analysis for new equipment or processes in order to identify hazards up front before use.

SECTION 3 RESPONSIBILITIES & LINES OF AUTHORITY

Employee Assistance Program

The company provides an Employee Assistance Program as an employee benefit. Employees are encouraged to seek voluntary assistance in dealing with any drug or alcohol problem. A voluntary leave of absence may also be available, under the company's leave of absence policy, for purposes of rehabilitation from drug and alcohol problems, provided that the employee requests such rehabilitation prior to being found by the company to have committed a drug or alcohol related offense, as set forth in accordance with the company's drug and alcohol related disciplinary rules.

Drug Testing Program

See individual Laney Companies Drug and alcohol Poilicies. A copy may be obtained through the HR Department

Division of Responsibility

Supervisors and Management

- Communicate safety procedures to employees, including any new and/or revised procedures.
- Ensure new employees receive proper training in safe work procedures as well as new job assignments.
- Communicate expectations regarding employee adherence to safe work procedures, and take appropriate disciplinary action for known incidents of negligence.
- Provide a role model to employees by personally adhering to safe work procedures.
- Aid in the investigation of job-related incidents, injuries, and illnesses, and work towards implementing procedures that may prevent future recurrence.
- Accept and evaluate employee safety concerns and suggestions, and work to correct potentially hazardous situations.
- Provide the equipment necessary for employees to safely perform their job responsibilities.
- Train all employees in a language that is understood and comprehended by those employees being trained.
- File documentation of proof that applicable regulatory training was conducted in a timely manner.

Competent Person – one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which immediately dangerous to life or health, and who has the authority to take prompt corrective measures to eliminate them.

Employees

- Become familiar with and comply with Employee Safety Handbook guidelines including any additional guidelines developed for your specific work area and any new and/or revised guidelines communicated by official notices or postings.
- Assist in training new employees in safe work procedures.
- Report all job-related injuries, incidents, or illnesses to supervisors immediately, or as soon as feasibly possible.
- Assist management in compiling the information needed to file complete and accurate incident reports.
- Report potentially hazardous work situations to supervisors, and make suggestions for correcting the condition.
- Utilize and maintain provided safety equipment, and immediately report defective equipment to supervisors.
- Adhere to safe work procedures on the job.

SECTION 4 OFFICE SAFETY

General Guidelines

- All file, desk, and table drawers must be kept closed when not in use.
- Do not overload top file cabinet drawers. Never open more than one drawer at a time as the cabinet could tip over.
- Do not use chairs, desks, tables or other office furniture as makeshift ladders.
- Care shall be exercised when using scissors, paper cutters, razor blades, and other equipment with sharp edges. Keep blades of paper cutters closed when not in use.
- Keep your hands clear of moving parts on office equipment.
- To prevent back problems, use proper ergonomics in your work-station. Take periodic breaks to avoid eye-strain when using computer terminals
- Get assistance before attempting to move heavy office furniture or equipment.

Extension Cords

- Use only UL listed extension cords of appropriate gauge for electrical load.
- Examine both the cord and connection carefully before use.
- Protect cords against contact with oil, hot surfaces, chemicals and other liquids.
- Replace any extension cord that is damaged. Extension cords shall not be used in place of permanent wiring.

Employee Conduct

- Each employee bears primary responsibility for ensuring his or her own personal safety. Employees are responsible for learning and obeying the safety rules and wearing all required personal protective equipment. Each employee shall carefully study all the Safety Rules and become familiar with the rules as they pertain to their job.
- Employees must notify their supervisor immediately of any unsafe conditions or acts. The Laney Companies will take every means possible to reduce and/or eliminate the safety risk. Any unsafe conditions or acts shall be dealt with immediately.

- Employees are expected to report to work in healthy, alert physical condition. Employees who are intoxicated or drug-impaired are potential hazards to themselves and co-workers.
- Practical jokes, rowdiness, and horseplay are strictly forbidden. These actions can lead to a very serious incident and will not be tolerated.

Workplace Violence
No employee should feel threatened or that his/her personal safety is in danger because of the actions or speech of employees/civilians/contractors. In order to minimize the chance of workplace violence, Laney Company advocates that all employees promote positive behavior and lead by example, by treating everyone with respect and dignity. If workplace violence does happen, the employee must immediately contact their supervisor. In cases of extreme emergency, contact Law Enforcement by calling 9-1-1 if necessary.

SECTION 5 COMMON AREAS

Building Entrances and Other Public Walkways

- All building entrances, pedestrian walkways inside buildings, restrooms, work areas, and storage areas shall be:
    - Kept free from refuse, slippery and wet substances, portable equipment, tools, supplies, electric extension cords, and any other tripping hazard.
    - Provide adequate lighting. In areas without adequate lighting, use a flashlight or electrical “trouble” light. Never use matches or an open flame for lighting.
    - Maintained at a safe level of cleanliness.
- Be alert to potentially slippery conditions at building entrances and stairways. Always use handrails on stairs.
- Use caution when pushing open a door to avoid injuring people opposite the door. Approach a door that opens towards you with caution.
- Keep outdoor pedestrian walkways clean and clear of obstructions and debris.
- In inclement weather, wear footwear that provides good traction.
- If a spill/slippery conditions exist, apply an absorbent material immediately to oil, grease, and other flammable materials, then clean the floor as soon as possible.

Waste Receptacles

- Proper waste receptacles shall be provided in all work areas, storage areas, and restrooms.
- All waste must be deposited in proper receptacles.
- All wiping rags, waste, and oily material shall be deposited in a covered metal container.
- Waste receptacles shall be emptied daily and the contents disposed of safely.

Marked Exits

- All exits shall be clearly marked and unobstructed at all times.
- No exit shall be locked, chained, or bolted so as to impede proper evacuation.
- Check exit lights to be sure they are maintained.

Jobsite Illumination:

- Construction areas – 5 foot candles of light minimum.

- Concrete placement-excavation and waste areas, access-ways, active storage areas, loading platforms, refueling and maintenance areas - 3 foot candles minimum.

Signs

- Danger Signs will only be used where an immediate hazard exists.
- Danger signs shall be painted red at the predominating color, with white letters inserted in it, black outline on the borders, and white on the lower section for additional sign wording.

SECTION 6 LIFTING AND CARRYING

- Do not attempt to carry a load that may jeopardize your health or safety. When possible, split it into two loads or receive assistance from a co-worker or use mechanical assistance.
- Do not carry objects that will obstruct your vision.
- Always apply proper lifting techniques, whether working alone, as a team, or with the aid of mechanical assistance.
    1. Keep your feet close to the load and parted for balance
    2. Keep your back straight
    3. Keep the load being lifted close to your body
    4. Lift the object with a secure grip
    5. Tuck your chin in
    6. Use your leg muscles to do the lifting; not your back

SECTION 7 FIRE PREVENTION

<u>General Guidelines</u>

A. Smoking is prohibited in areas where flammable or combustible liquids are used or stored.
B. Smoking is allowed only in specific designated areas
C. Fire exits will be kept clear and shall not be locked from the inside so as not to impede proper evacuation.
D. Smoking is prohibited during the work day other than breaks if the jobsite has designated smoking areas.
E. Smoking is prohibited in all company owned vehicles and equipment.

Garage Areas:

(Company) Flammable liquids must be kept in approved safety cans when being transported or stored.

(Employee) No flammable liquids to be used within 50 feet of open flames or ignition.
Locate and identify any emergency switch to shut off all power to pumps in case of emergency at a location remote to pumps.
There shall be NO SMOKING or OPEN FLAMES in the area used for fueling.
NO SMOKING signs shall be posted at the gas pump and inside the garage.
(Employee) Vehicles and equipment should be shut off while fueling.
(Company) Each fueling area shall be provided with a fire extinguisher having a rating of 20BC, located within 75 feet of pumps, underground fill pipes for tanks, and lubrication areas.

Fire Extinguishers

A. Fire extinguishers will be prominently displayed, labeled for usage, and kept clear for easy access at all times.
B. Know the locations of fire extinguishers and how to use them.
C. After using an extinguisher, report it immediately to your supervisor so a replacement may be obtained or the extinguisher recharged.
D. NEVER return a partially used extinguisher to its storage place.
E. All extinguishers, in both vehicles and buildings, will be inspected annually by a qualified person. A company designee will inspect department extinguishers on a monthly basis to ensure extinguishers are present to determine if they have been used and to inspect gauges and tubing.
F. Do not use water-type extinguishers on electrical fires because of the danger of electrocution. They are intended for use on Class A (paper, wood) fires only.
G. Use Class D fire extinguisher on combustible metals only.

Vehicle Portable Fire Extinguisher (PFE) Requirements:

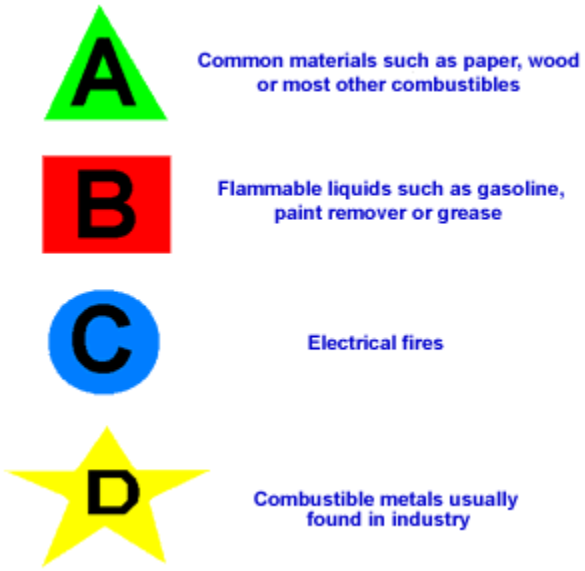
- Light Duty Motor Vehicles (less than 10,000 pounds) must be equipped with a minimum 2 1/2 lb. fire extinguisher, ABC type.

- Motor Vehicles weighting between 10,000 and 26,000 pounds must have a 2 1/2 lb., ABC type fire extinguisher.

- Heavier require a 5 lb., ABC type fire extinguisher.

All require PFE's to be secured to prevent movement or damage.

Classes of Fires and Combustible Materials



Storage of Flammable or Combustible Materials

A. No storage of flammable or combustible materials are allowed in furnace rooms, boiler rooms, or any other unauthorized areas.
B. Drums of flammables must be grounded and a bond wire must be used to electrically interconnect the drum and container used in dispensing liquid.
C. Oily and greasy rags must be put in a metal container with a self-closing lid.
D. Gasoline must not be used for cleaning purposes.
E. Cleaning solvents with flammable properties must be kept in approved safety containers, labeled and used in accordance with manufacturer's instructions.
F. Secondary containers must be labeled with the name of the chemical, mixture, or element contained therein. It is also a best practice to label secondary containers with HMIS labels.

OSHA/DOT Gas Can Requirements

OSHA 29 CFR 1926.152(a)(1) states that "Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids. Approved safety cans or Department of Transportation approved containers shall be used for the handling and use of flammable liquids in quantities of 5 gallons or less

Laney Companies will require all gas cans onsite to be an approved, closed container, of not more than 5 gallons in capacity, have a flash arresting screen, spring closing lid and spout cover and so designed that it will safely relieve internal pressure when subject to fire exposure.

Approved Gas Can on Jobsites:

Prevention

- No open burning areas will be allowed on site.
- Combustible scrap and debris shall be removed at regular intervals during the course of work. Refuse containers shall be provided to facilitate such removal.
- 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.
- If the object to be welded, cut, or heated cannot be moved and if all the fire hazards cannot be removed, positive means shall be taken to confine the heat, sparks, and slag, and to protect the immovable fire hazards from them.
- No welding, cutting, or heating shall be done where the application of flammable paints, or the presence of other flammable compounds, or heavy dust concentrations creates a hazard.

When the welding, cutting, or heating operation is such that normal fire prevention precautions are not sufficient, additional personnel shall be assigned to guard against fire while the actual welding, cutting, or heating operation is being performed, and for a sufficient period of time after completion of the work to ensure that no possibility of fire exists. Such personnel shall be instructed as to the specific anticipated fire hazards and how the firefighting equipment provided is to be used.

SECTION 8 MEDICAL SUPPORT

Jobsite injuries must be reported immediately to the Human Resources Department, specifically to:
Kristen Benjamin
Ph: 410-795-1761 x223
Email: KBenjamin@mtlaney.com

Prompt notification of all injuries that may require medical treatment is required by all employees. This will allow the Laney Companies, through our worker's compensation insurer, to ensure that you receive prompt and pertinent medical care.

It is the policy of The Laney companies to provide its employees with the necessary and proper medical treatment for any personal injuries that may occur while in the course of employment with this company.

Reporting Injuries: An injured employee shall immediately on the occurrence of an incident or as soon as thereafter practicable notify the Safety Director and his or her supervisor of the incident and/or injury.

All incidents/accidents involving personal injury and/or property damage are to be reported to Laney Companies home office utilizing the attached First Report of Injury Form.

First Aid Cases

Employees will report all injuries, no matter how slight they may appear, to the supervisor or manager. These cases will be promptly treated and recorded in the following manner:

(a) Name, age and address of injured employee.
(b) Date and time of accident.
(c) Nature of injury.
(d) Brief description of incident.
(e) Brief statement by supervisor concerning method of preventing similar type accident.

First Aid Kit will be provided on vehicles, in a waterproof container, with individual sealed packages for each type of item – checked at least weekly. Employees assigned to each vehicle are responsible for checking and inspecting first-aid kits on a regular basis and at least weekly.

Eye wash stations or portable eye wash containers must be provided when any employees may be exposed to corrosive materials.

Ambulance Service: Emergency (911)

SECTION 9 EMERGENCY ACTION PLAN

The plan is designed to educate and train all employees about the various types of emergencies that may occur, and understand what to do following an emergency situation.

The plan outlines procedures to be used in an emergency situation such as: First Aid, CPR, and AED procedures.

Pursuant to OSHA 29 CFR 1926.50(c), Laney Companies requires that certified personnel are available to provide emergency first aid and CPR on all our job sites and at our main office.

First Aid, CPR and AED

If a situation arises that may require minor First Aid Treatment:

- Any employee can announce a medical emergency by notifying their supervisor and those employees around them.
- Employee with a minor injury must report directly to their Supervisor if able to.

The Supervisor will call someone who is trained to assess the injury, and the supervisor will ensure an incident investigation is completed.

If a situation arises that may require **major** First Aid Treatment, immediately notify your nearest supervisor, supervisors then proceed to take the following steps:

Assess the situation and administer proper first aid treatment as trained:

- Do not attempt to move anyone who is unconscious, has a broken limb, or injured back
- Keep person from moving
- Do check for breathing/open airway & administer rescue breathing if needed
- Do administer CPR and use AED if needed
- Do try to stop severe bleeding
- Do treat for shock and make patient comfortable
- Do get all information concerning the patient and incident or illness if person is conscious (signs, and symptoms, allergies, medication taken, pertinent past illnesses, last oral intake, events leading to pertinent past illnesses, events leading to the illness/injury.)
- Do request external emergency medical services if needed

Communicate with the emergency services (911), giving the full description of the patient, the situation, the location and the patients condition.

Delegate an employee or by-standers to escort the Ambulance crew to the patient and will stay with the vpatient until the medical emergency has passed or the patient is transported.

Emergency Medical Transportation

In the event, the injured person needs additional medical attention; the preferred method of emergency transport is the local ambulance.

Transportation by company car or personal vehicle should be avoided except for the most minor of injuries.

Examples of injuries requiring emergency transport by the rescue squad are:

- A head, neck or spine injury
- Injuries/illnesses involving the respiratory or circulatory (heart) systems,
- Injuries with severe bleeding and if the injured person shows signs of shock or disorientation.

Injured persons are not allowed to transport themselves from the jobsite to obtain external medical evaluation/treatment, except in minor sprain/strain injuries where the employee is completely un-medicated and is willing to drive themselves home or to doctor's treatment.

SECTION 10 FLEET SAFETY PROGRAM

Serious injury or even death can result from workers coming into contact with mobile equipment on a jobsite. Additionally, prior to each shift, vehicle and equipment operators must fill out the operator daily checklists.

In order to protect workers from being struck by equipment, Laney Companies will require that employees:

- Conduct daily inspections of equipment
- Install barricades when necessary
- Use required hand signals
- Require audible alerts or alarms when equipment is backing up
- Use spotters when audible alarms are not functioning and whenever vehicles or equipment are near people or property

Prior to each shift, workers shall ensure that all vehicles and equipment have fully operational braking systems and brake lights. Additionally, seat belts must be worn when provided on equipment.

To prevent unwanted movement of parked vehicles, block/chock wheels when parked.

GENERAL REQUIREMENTS FOR DRIVERS

1. All applicants or transfer employees for vehicular operation positions must satisfy the requirements of a drug screen as outlined under Laney Companies Substance Abuse Policies.
2. MVR's may be obtained and evaluated for all drivers on a periodic basis.
3. Seatbelts must be worn at all times by all occupants of vehicles.

DRIVER RESPONSIBILITIES

All vehicles must be kept clean and orderly at all times. Vehicles must be locked when not in use. It is the vehicle operator's responsibility to regularly check fluid levels and inspect for deficiencies. Any vehicle in need of repairs must be reported to the supervisor and maint@mtlaney.com email address at once.

Any incident, damage or fines incurred may be the responsibility of the employee and could, at the supervision's discretion, be reason for immediate termination.

Any fines resulting from speeding or any other traffic violations while operating a company vehicle will be the sole responsibility of the employee. Parking citations will be reviewed on a case-by-case basis.

No riders are allowed in company vehicles other than Laney Company employees. Exceptions will be reviewed on a case-by-case basis by a Laney Companies management representative.

Workers will be trained to know where to look to determine proper load rating capacity of equipment.

Workers will not be allowed under suspended loads at any time. Laney Companies will require that all equipment maintain a minimum of 10 ft. distance from overhead power lines. Distance requirements increase based on the voltage, refer to a competent person for safe working distances.

General Guidelines

A. Operate all equipment in accordance with manufacturer's specifications, and other applicable safety rules. Do not leave equipment unattended while in operation.
B. Always shut equipment off when not in use.
C. Do not alter or remove machine safety guards except for repair purposes.
D. Immediately report known equipment safety problems or concerns to your supervisor for evaluation and repair or replacement.
E. When finished using equipment, be sure it is properly secured, cleaned, and stored in its designated area.
F. Employees shall conduct a 360 degree walk around of equipment prior to operating any piece of equipment.

When The Laney Companies has reason to believe that an employee lacks the skill or understanding for operating this equipment safely, they will be retrained. Additionally, when processes or changes in the workplace change or when new hazards are introduced, retraining will occur.

General Safety Rules

- Employees should stay clear of backing and turning vehicles, and equipment with rotating cabs.
- Employees must ensure that all vehicles have fully operational braking systems and brake lights.
- Maintain at least 10 ft. clear distance from overhead power lines when operating equipment.

Equipment Training:

Employees will be trained on how to properly complete Laney Companies Daily Operator Checklist.

Refresher training shall be conducted when an operator has been observed operating the equipment in an unsafe manner or when the operator has been involved in an incident or near-miss incident.

Additionally, refresher training shall be conducted if any workplace conditions change that could impact the safe operation of the equipment.

Training will be documented including the name of the operator, the date, and the identity of the trainer.

General Guidelines

A. Operate all equipment in accordance with manufacturer's specifications, and other applicable safety rules. Do not leave equipment unattended while in operation.
B. Always shut equipment off when not in use.
C. Do not alter or remove machine safety guards except for repair purposes.
D. Immediately report known equipment safety problems or concerns to your supervisor for evaluation and repair or replacement.
E. When finished using equipment, be sure it is properly secured, cleaned, and stored in its designated area.

All vehicles must have:

1. Service brake system
2. Emergency brake system
3. Parking brake system

Under all conditions, brake lights must be in operable condition.

- Replace broken brake lights immediately.

All vehicles shall be equipped with an adequate audible warning device at the operator's station and in an operable condition.

- Test the horn before use.

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

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

Working around Motor Vehicles

- Never cross the path of a backing vehicle.
- Always allow yourself an exit/escape route.
- Be cognizant and lookout for unbalanced or unsecured loads.
- Chain, block or otherwise secure loads to prevent movement.
- Maintain eye contact and visual communication with operator if you are entering any danger zones

Personal Protective Equipment Recommendations:

- Use hardhats to protect against flying and falling object hazards.
- Safety glasses prevent eye injuries from contact with chemicals or flying objects.
- Hi-Visibility clothing makes you visible to machine operators or drivers.

Jobsite Safety

- Use caution when approaching heavy equipment.
- Don't approach moving equipment.
- Don't approach equipment from behind.
- Only approach equipment/operator if absolutely necessary.

All vehicles with cabs shall be equipped with windshields and powered wipers.

- Cracked and broken glass shall be replaced.
- Vehicles operating in areas or under conditions that cause fogging or frosting of the windshields shall be equipped with operable defogging or defrosting devices.

Be cognizant of back-up alarms on trucks.

Vehicle Pre and Post-Trip Operator Checklist Available in Dispatch

SECTION 11 HAND TOOLS

General Guidelines

A. Always select the appropriate tool for the job. Never use makeshift tools. Use tools that are the right size and type for the job.
B. Check the condition of tools frequently. Report defective tools to your supervisor for evaluation and possible repair or replacement.
C. Check clearances and sharpness of tools before leaving the shop.
D. Protect hands by wearing gloves when appropriate.
E. Carry sharpened tools in covers, or be sure they are used away from the body.
F. Wear eye protection when using impact tools.
G. Do not lay tools on top of stepladders or other places from which they could fall on someone.
H. Use tools made of non-sparking material in hazardous atmospheres.
I. Use tools with insulated handles for electrical work.
J. Never use the blunt edge or end of a hand tool to perform the function of a hammer.
K. Never push metal or wood chisels toward any part of the body.
L. Keep tools clean and free of oil or grease to prevent slipping.
M. Never use a pipe or other extension on the handle of a tool to get more leverage.
N. Make sure that the handle of a tool is smooth; free from splinters and that it fits tightly in the head.
O. Never throw or toss a tool towards another person. Pass it over with the handle forward.
P. After using tools, return them to their proper place.

SECTION 12 POWER TOOLS

GENERAL GUIDELINES WHEN USING POWER TOOLS

Power tools substantially increase the number and types of hazards to an employee. Hazards range from electrical shock of a short circuit to being struck by chips, shavings, and other debris during operation.

All machine guards shall be kept in place while machinery is in operation. Tampering with machine guards is prohibited, and any removal requires the prior approval of a supervisor. All guards are to be properly replaced after the repair work that necessitated their removal has been completed. When necessary to work on electrically driven machinery, the disconnect switch for controlling the machine shall be secured in the open or off position by the worker or workers

performing the job. The securing device should not be removed until the work has been completed and the area has been cleared.

When it is impractical or impossible to place a guard over the source of the hazard, then it becomes necessary to place the guard on the worker. This is done by wearing approved personal protective apparel, such as hard hats, safety belts, safety goggles, traffic vests, face shield, gloves, aprons, toe guards, respirators, etc. Supervisors shall insure that all their employees are properly protected.
The following general precautions should be observed by power tool users:

- Never carry a tool by the cord or hose.
- Never yank the cord or the hose to disconnect it from the receptacle.
- Keep cords and hoses away from heat, oil, and sharp edges.
- Disconnect tools when not in use, before servicing, and when changing accessories such as blades, bits and cutters.
- All observers should be kept at a safe distance away from the work area.
- Secure work with clamps or a vise, freeing both hands to operate the tool.
- Avoid accidental starting. The worker should not hold a finger on the switch button while carrying a plugged-in tool.
- Tools should be maintained with care. They should be kept sharp and clean for the best performance. Follow instructions in the user's manual for lubricating and changing accessories.
- Be sure to keep good footing and maintain good balance.
- The proper apparel should be worn. Loose clothing, ties, or jewelry can become caught in moving parts.
- All portable electric tools that are damaged shall be removed from use and tagged "Do Not Use."

These general practices should be followed when using electric tools:

- Electric tools should be operated within their design limitations.
- Gloves and safety footwear are recommended during use of electric tools.
- When not in use, tools should be stored in a dry place.
- Electric tools should not be used in damp or wet locations.
- Work areas should be well lighted.

Employees who use hand and power tools and who are exposed to the hazards of falling, flying, abrasive and splashing objects, or exposed to harmful dusts, fumes, mists, vapors, or gases must be provided with the particular personal equipment necessary to protect them from the hazard.

All hazards involved in the use of power tools can be prevented by following five basic safety rules:

- Keep all tools in good condition with regular maintenance.
- Use the right tool for the job.
- Examine each tool for damage before use.
- Operate according to the manufacturer's instructions.
- Provide and use the proper protective equipment.

SECTION 13 CORD & PLUG CONNECTED ELECTRICAL EQUIPMENT

A. Cord and plug connected equipment including extension cords, supplied by premises wiring shall be handled in a manner, which will not cause damage. Extension electric cords connected to equipment may not be used for raising or lowering the equipment. Flexible cords may not be fastened with staples or otherwise hung in such a fashion as could damage the outer jacket or insulation.

B. Portable cord and plug-connected equipment and extension cords shall be visually inspected before use and any shift for external defects (such as loose parts, deformed and missing pins or damage to outer jacket or insulation) and for evidence of possible internal damage (such as pinched or crushed outer jacket). Cord and plug connected equipment and extension cords which remain connected once they are put in place and are not exposed to damage need to be visually inspected until they are relocated.

C. If there is a defect or evidence of damage that might expose an employee to injury, the defective or damaged item shall be removed from service and no employee may use it until repairs and testing necessary to render the equipment safe have been made.

D. When an attachment plug is to be connected to a receptacle including an extension cord, the relationship of the plug and receptacle contacts shall be checked to ensure that they are of proper mating configurations.

E. Extension cords used with ground-type equipment shall contain an equipment grounding conductor.

F. Attachment plugs and receptacle may not be connected or altered in a manner which would prevent proper continuity of the equipment grounding conductor at the point where plugs are attached to receptacles. Additionally, these devices may not be altered to allow the grounding pole of a plug to be inserted into slots intended for connection to the current-carrying conductors.

G. Adapters which interrupt the continuity of the equipment grounding connection may not be used.

H. Portable electric equipment and extension cords used in highly conductive work location (such as those inundated with water or other conductive liquids) or in job locations where employees are likely to contact water or conductive liquids shall be approved for those locations.

I. Employees' hands may not be wet when plugging and unplugging extension cords, and cord and plug-connected equipment if energized equipment is involved.

J. Energized plug and receptacle connection may be handled only with insulating protective equipment if the condition of the connection could provide a conductive path to the employee's hand.

K. Locked type connectors shall be properly secured after connection.

L. Any cord and plug connected equipment supplied by other than premises wiring shall meet the following:

1. It shall be equipped with a cord containing an equipment grounding conductor connected to the tool frame and to a means for grounding the other end (however, this option may not be used where the introduction of the ground to the work environment increases the hazard to an employee); or
2. It shall be of double-insulated type.

3. The cord is plugged into a GFCI Outlet.

SECTION 14 GENERAL ELECTRICAL PROCEDURES

Guidelines for Working with Electrical Equipment

A. Visually inspect all electrical equipment before using, making sure that electrical cords are not worn or damaged. Inspect plugs to see that they are not damaged.
B. Inspect extension cords for wear or damage before they are used. Make sure you have the correct gauge cord for equipment being used. Extension cards are not to be used as permanent wiring.
C. Inspect electric hand-held (trouble) lights for worn or damaged cords and plugs. Trouble lights cannot have an on/off switch on them and cannot have any provisions for plug-in attachments. Trouble lights must have bulb guards.
D. All electrical equipment must be properly grounded to avoid electrical shock. Portable generators must be equipped with ground fault circuit interrupters (GFCI).
E. In order to prevent tripping, avoid placing electrical cords in walkways. If this needs to be done on a temporary basis, the cords must be clearly marked and secured.
F. When working with electrical equipment in wet or damp areas, equipment must be ground fault circuit interrupter (GFCI) protected.

Important Tip on Jobsites:

Protect all electrical extension cords from damage. This can be completed by guarding electrical cords when they are run across roadways or high-traffic areas (this also protects tripping hazards). You should not run electrical cords through doorways or window openings; however, if no other viable options exist – you must guard these cords by blocking the window or door from closing.

General Electrical Safety Procedures

- Communicate safety procedures to employees, including any new and/or revised procedures.
- Do not use frayed or worn electrical cords or cables. Do not use flat cords, job-made Romex extension cords, or household-type extension cords on a jobsite.
- Use only 3-wire type extension cords (with ground pin attached) designed for hard or junior hard service.
- Protect extension cords when they are run through windows, doors, or floor holes.
- Maintain all electrical tools and equipment in safe condition and check them regularly for defects.
- Remove broken, damaged, or defective tools and equipment from the jobsite.
- Protect all temporary power (including extension cords plugged into the permanent wiring of the building) with approved ground fault circuit interrupters (GFCI). Plug into a GFCI protected temporary power pole or a GFCI extension cord to protect against shocks.
- Do not bypass any protective system or device designed to protect employees from making contact with electrical current.

- Locate and identify overhead electrical power lines. Ensure that ladders, scaffolding, equipment, and materials are never within 10 feet, 20 feet for cranes, of electrical power lines.

Use and Installation:

Listed, labeled, or certified equipment shall be installed and used in accordance with instructions included in the listing, labeling, or certification.

- Follow the manufacturers' instructions for safe use.
- Do not modify electrical parts unless permissible by manufacturer.
- Do not make homemade junction boxes to use with flexible cords (extension cords).

Electrical equipment should not be used unless the manufacturer's name or trademark is placed on the equipment and unless other markings are provided giving voltage, current, wattage, or other ratings as necessary.

- You must be able to identify and lookup who the manufacturer is, and what their requirements are.

Each service, feeder, and branch circuit, at its disconnecting means or overcurrent device, must be legibly marked to indicate its purpose, unless located and arranged so the purpose is evident.

- Mark circuits so you know what you are turning off.

GFCI:

- All 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure and which are in use by employees, shall have approved ground-fault circuit interrupters (GFCI's) for personnel protection.

Use of Equipment

Portable Electric Equipment - This section applies to the use of cord and plug connected equipment, including flexible cord sets (extension cords).

1. Extension Cord Use
   a. Employees using extension cords (drop cords) to power tools and/or equipment for the performance of *construction, maintenance, repair or demolition* shall use GFCI protection. This pertains to any part of the plant, both inside and outside.
   b. All extension cords must be grounding type, made with UL listed parts, and be in good physical condition.
   c. Extension cords may not be lengthened, or "repaired" with tape.
   d. Power outlet strips are for equipment needing surge protection (e.g., computers).
   e. Extension cords shall not be run through holes in walls, ceilings or floors.
   f. Extension cords may not be plugged into power strips. Power strips may not be connected to each other (i.e., "piggy-backed").

g. An extension cord should not be run across high traffic areas or used in applications where potential damage to the cord might occur.
h. The use of an extension cord must not create a trip hazard.
i. Extension cords shall not be attached to building surfaces or used in lieu of fixed wiring of a structure.
j. Extension cords shall not be run through doorways or windows, or concealed behind walls, ceilings or floors.

2. Handling - Portable equipment shall be handled in a manner, which will not cause damage. Flexible electric cords connected to equipment may not be used for raising or lowering the equipment. Flexible cords may not be fastened with staples or otherwise hung in such a fashion as could damage the outer jacket or insulation.

3. Visual Inspection - Portable cord-and-plug connected equipment and flexible cord sets (extension cords) shall be visually inspected before use on any shift for external defects and for evidence of possible internal damage.
   a. Cord and plug-connected equipment and extension cords which remain connected once they are put in place and are not exposed to damage need not be visually inspected until they are relocated.
   b. Defective or damaged items shall be removed from service until repaired.

4. Grounding type equipment - A flexible cord used with grounding-type equipment shall contain an equipment-grounding conductor.
   a. Attachment plugs and receptacles may not be connected or altered in a manner which would prevent proper continuity of the equipment grounding conductor at the point where plugs are attached to receptacles. Additionally, these devices may not be altered to allow the grounding pole of a plug to be inserted into slots intended for connection to the current-carrying conductors.
   b. Adapters (i.e., “cheaters”) that interrupt the continuity of the equipment grounding connection may not be used.

5. Conductive Work Locations - Portable electric equipment and flexible cords used in highly conductive work locations (such as those inundated with water or other conductive liquids), or in job locations where employees are likely to contact water or conductive liquids, shall be approved for those locations.

6. Connecting Attachment Plugs - Employees' hands may not be wet when plugging and unplugging flexible cords and cord and plug-connected equipment, if energized equipment is involved.
   a. Energized plug and receptacle connections may be handled only with insulating protective equipment if the condition of the connection could provide a conducting path to the employee's hand.
   b. Locking-type connectors shall be properly secured after connection.

SECTION 15 LADDERS

Choose the right ladder for the job, Ask the Following Questions?

- Will I be working around electrical lines or energized lines?
  - If yes, select a wooden or fiberglass ladder.
- How tall do I need to go in order to reach the work area?
  - Calculate the proper length ladder you will need by accounting for the pitch of ladder, 3' overhand on top of level accessing, and overlap of the rungs.
- Do I have a flat and solid surface to place the ladder?
- Pre-plan!
  - Will I be able to easily secure ladder at the top and bottom to prevent displacement?
  - Is the ladder too heavy and will I require a second person to assist?

General Safe Work Practices and Requirements:

- All ladders must be inspected before use for warping, cracks, loose rungs, slivers and general condition.
- Ladders must be stored on supporting racks, or in a specially designated area.
- Defective ladders must not be used, and must be marked and tagged as defective; and taken out of service until repaired or discarded.
- Always report defective equipment to your supervisor.
- Only one person may occupy a ladder at a time. (Fire service ladders are exempt from this rule.)
- Never use metal ladders near electrical power lines.
- The distance between the foot of the ladder and the wall it rests against should be equal to about 1/4 the height of the ladder (observe 4 to 1 ratio when using ladders). Secure ladders in place. On slippery surfaces, tie off at the base of ladder to a substantial support.
- Avoid setting ladders within the arc of a swinging door or near blind corners.
- Do not paint ladders since defects may be concealed by the use of paint.
- Always face ladders when ascending or descending and do not carry anything that may cause you to lose your balance.
- Do not lean when working from a ladder; a general rule is to never let your belt buckle or bellybutton pass the siderails while you are working from a ladder.

SECTION 16 CONFINED SPACES

It is The Laney Companies Policy that no employee shall enter ANY confined space without first contacting the Safety Department. This will allow the Safety Department to review the space and to ensure all employees are properly trained for confined space entry.

On May 4, 2015 the Federal Occupational Safety and Health Administration (OSHA) issued then Final Rule on Confined Spaces in Construction. Confined spaces, such as manholes, tanks, or sewers, are work areas that are not designed for continuous occupancy and may be difficult to exit in the event of an emergency.

The requirements of this rule will become effective **August 3, 2015**.

Although the new confined space in construction standard is similar to the general industry confined space standard, there are some differences between the two.

OSHA's regulations define "construction work" as "construction, alteration, and/or repair, including painting and decorating." The terms "building" and "work" generally include construction activity as distinguished from manufacturing, furnishing of materials, or servicing and maintenance work. The terms include, without limitation, buildings, structures, and improvements of all types, such as bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, excavating,

Scope of the Rule - This standard contains the requirements for practices and procedures to protect workers engaged in construction activities at a worksite with one or more confined spaces.

Examples of locations where confined spaces may occur include, but are not limited to, the following: Bins; boilers; pits (such as elevator, escalator, pump, valve or other equipment); manholes (such as sewer, storm drain, electrical, communication, or other utility); tanks (such as fuel, chemical, water, or other liquid, solid or gas); incinerators; scrubbers; concrete pier columns; sewers; transformer vaults; heating, ventilation, and air-conditioning (HVAC) ducts; storm drains; water mains; precast concrete and other pre-formed manhole units; drilled shafts; enclosed beams; vessels; digesters; lift stations; cesspools; silos; air receivers; sludge gates; air preheaters; step up transformers; turbines; chillers; bag houses; and/or mixers/reactors.

A confined space has;

- Limited means of entry and/or exit,
- Is large enough for a worker to enter it, and
- Is not intended for regular/continuous occupancy.

If a space meets the definition of “confined space” and contains recognized serious health or safety hazards, it is a “permit-required confined space” and OSHA requires workers to have a permit to enter these spaces. A space with no potential to have atmospheric hazards may be classified as a non-permit confined space only when all hazards are eliminated in accordance with the standard.

General Requirements:

Before beginning work at a jobsite, each employer must ensure that a competent person identifies all confined spaces in which one or more of the employees it directs may work, and identifies each space that is a permit space, through consideration and evaluation of the elements of that space, including testing as necessary.

If permit spaces are identified:

1. Inform exposed employees by posting danger signs of the existence and location of, and the danger posed by, each permit space.

a. A sign reading “DANGER – PERMIT REQUIRED CONFINED SPACE, DO NOT ENTER” or using other similar language would satisfy the requirement for a sign.
2. Inform employees’ authorized representatives and the controlling contractor of the existence and location of, and the danger posed by, each permit space.

If we receive notice of, a permit space, there must be a decision whether employees will or will not enter in the space.

If not entering: we will take effective measures to prevent those employees from entering that permit space, in addition to complying with all other applicable requirements of this standard.

If entering: We will have a written permit space program implemented at the construction site. The written program must be made available prior to and during entry operations for inspection by employees and their authorized representatives.

Entry Procedures

Eliminate any conditions making it unsafe to remove an entrance cover.

When entrance covers are removed, the opening must be **immediately guarded** by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and that will protect each employee working in the space from foreign objects entering the space.

Before an employee enters the space, the internal atmosphere must be tested, for oxygen content, flammable gases and vapors, and for potential toxic air contaminants, in that order.

Any employee, who enters the space, or that employee’s authorized representative, must be provided an opportunity to observe the pre-entry testing required by this paragraph.

No hazardous atmosphere is permitted within the space whenever any employee is inside the space.

Continuous forced air ventilation must be used, as follows:

1. An employee must not enter the space until the forced air ventilation has eliminated any hazardous atmosphere;
2. The forced air ventilation must be so directed as to ventilate the immediate areas where an employee is or will be present within the space and must continue until all employees have left the space;
3. The air supply for the forced air ventilation must be from a clean source and must not increase the hazards in the space.
4. The atmosphere within the space must be continuously monitored. Employer must ensure that the monitoring equipment has an alarm that will notify all entrants if a specified atmospheric threshold is achieved.

If a hazard is detected during entry:

1. Each employee must leave the space immediately;
2. The space must be evaluated to determine how the hazard developed; and
3. The employer must implement measures to protect employees from the hazard before any subsequent entry takes place.

The employer must ensure a safe method of entering and exiting the space. If a hoisting system is used, it must be designed and manufactured for personnel hoisting.

The employer must verify that the space is safe for entry and that the preentry measures have been taken, through a written certification that contains the date, the location of the space, and the signature of the person providing the certification. The certification must be made before entry and must be made available to each employee entering the space or to that employee's authorized representative.

When there are changes in the use or configuration of a non-permit confined space that might increase the hazards to entrants, or some indication that the initial evaluation of the space may not have been adequate, each entry employer must have a competent person reevaluate that space and, if necessary, reclassify it as a permit required confined space.

<u>Prior to Entry</u>
Permit Space Entry Communication and Coordination:

Before entry operations begin, the **host employer** must provide the following information, if it has it, to the controlling contractor:

1. The location of each known permit space;
2. The hazards or potential hazards in each space or the reason it is a permit space; and
3. Any precautions that the host employer or any previous controlling contractor or entry employer implemented for the protection of employees in the permit space.

Before entry operations begin, the **controlling contractor** must:

1. Obtain the host employer's information about the permit space hazards and previous entry operations; and
2. Provide the following information to each entity entering a permit space and any other entity at the worksite whose activities could foreseeably result in a hazard in the permit space:
    a. The information received from the host employer;
    b. Any additional information the controlling contractor has about the space;
    c. The precautions that the host employer, controlling contractor, or other entry employers implemented for the protection of employees in the permit spaces.

Before entry operations begin, each **entry employer** must:

1. Obtain all of the controlling contractor's information regarding permit space hazards and entry operations; and
2. Inform the controlling contractor of the permit space program that the entry employer will follow, including any hazards likely to be confronted or created in each permit space.

The **controlling contractor** and **entry employer(s)** must coordinate entry operations when:

1. More than one entity performs permit space entry at the same time; or
2. Permit space entry is performed at the same time that any activities that could foreseeably result in a hazard in the permit space are performed.

After Entry

1. The controlling contractor must debrief each entity that entered a permit space regarding the permit space program followed and any hazards confronted or created in the permit space during entry operations
2. The entry employer must inform the controlling contractor in a timely manner of the permit space program followed and of any hazards confronted or created in the permit space(s) during entry operations; and
3. The controlling contractor must apprise the host employer of the information exchanged with the entry entities

Permit Required Confined Space Program

All entry employers must:

1. Implement the measures necessary to prevent unauthorized entry;
2. Identify and evaluate the hazards of permit spaces before employees enter them;
3. Develop and implement the means, procedures, and practices necessary for safe permit space entry operations, including, but not limited to, the following:
    a. Specifying acceptable entry conditions;
    b. Providing each authorized entrant or that employee's authorized representative with the opportunity to observe any monitoring or testing of permit spaces;
    c. Isolating the permit space and physical hazard(s) within the space;
    d. Purging, inerting, flushing, or ventilating the permit space as necessary to eliminate or control atmospheric hazards;
    e. Determining that, in the event the ventilation system stops working, the monitoring procedures will detect an increase in atmospheric hazard levels in sufficient time for the entrants to safely exit the permit space;
    f. Providing pedestrian, vehicle, or other barriers as necessary to protect entrants from external hazards;
    g. Verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry, and ensuring that employees are not allowed to enter into, or remain in, a permit space with a hazardous atmosphere unless the employer can demonstrate that personal protective equipment (PPE) will provide effective protection for each employee in the permit space and provides the appropriate PPE to each employee; and
    h. Eliminating any conditions (for example, high pressure) that could make it unsafe to remove an entrance cover.

Entry employers must provide:

- Testing and monitoring equipment
- Ventilating equipment
- Communications equipment
- Personal protective equipment insofar as feasible engineering and work-practice controls do not adequately protect employees
- Lighting equipment that meets the minimum illumination requirements
- Barriers and shields
- Equipment, such as ladders, needed for safe ingress and egress by authorized entrants;
- Rescue and emergency equipment (if performing self-rescue)

- Any other equipment necessary for safe entry into, safe exit from, and rescue from, permit spaces.

Entry employers must:
Test conditions in the permit space to determine if acceptable entry conditions exist before changes to the space's natural ventilation are made, and before entry is authorized to begin, except if isolation of the space is infeasible because the space is large or is part of a continuous system (such as a sewer), the employer must:

- Perform pre-entry testing to the extent feasible before entry is authorized; and
- If entry is authorized, continuously monitor entry conditions in the areas where authorized entrants are working,
- Provide an early-warning system that continuously monitors for nonisolated engulfment hazards. The system must alert authorized entrants and attendants in sufficient time for the authorized entrants to safely exit the space.

Continually monitor the space for atmospheric hazards. Additionally, entry employer must reevaluate the permit space in the presence of any authorized entrant or that employee's authorized representative who requests that the employer conduct such reevaluation.

Entry employers must provide at least one attendant outside the permit space. Entry employers also designate each person who is to have an active role (as, for example, authorized entrants, attendants, entry supervisors, or persons who test or monitor the atmosphere in a permit space) in entry operations, identify the duties of each such employee, and provide each such employee with the training required

Entry employers are responsible to develop and implement procedures for summoning rescue and emergency services (including procedures for summoning emergency assistance in the event of a failed 18 non-entry rescue), for rescuing entrants from permit spaces, for providing necessary emergency services to rescued employees, and for preventing unauthorized personnel from attempting a rescue.

Entry employers must develop and implement a system for the preparation, issuance, use, and cancellation of entry permits as required by this standard, including the safe termination of entry operations under both planned and emergency conditions.

Develop and implement procedures to coordinate entry operations, in consultation with the controlling contractor, when employees of more than one employer are working simultaneously in a permit space or elsewhere on the worksite where their activities could, either alone or in conjunction with the activities within a permit space, foreseeably result in a hazard within the confined space, so that employees of one employer do not endanger the employees of any other employer

Once entry operations have completed, entry employer must have procedures developed to conclude the entry. This may include closing off a permit space and cancelling the permit.

Permitting Process:

Before entry begins, the entry supervisor identified on the permit must sign the entry permit to authorize entry.

The completed permit must be made available at the time of entry to all authorized entrants or their authorized representatives, by posting it at the entry portal or by any other equally effective means so that the entrants can confirm that pre-entry preparations have been completed. The duration of the permit may not exceed the time required to complete the assigned task or job identified on the permit

Terminating Entry:
The entry employer must retain each canceled entry permit for at least 1 year to facilitate the review of the permit-required confined space program.

The entry supervisor must terminate entry and take the following action when any of the following apply:

1. Cancel the entry permit when the entry operations covered by the entry permit have been completed; or
2. Suspend or cancel the entry permit and fully reassess the space before allowing reentry when a condition that is not allowed under the entry permit arises in or near the permit space and that condition is temporary in nature and does not change the configuration of the space or create any new hazards within it; and
3. Cancel the entry permit when a condition that is not allowed under the entry permit arises in or near the permit space

Entry Permit:
The entry permit that documents compliance with this section and authorizes entry to a permit space must identify:

1. The permit space to be entered;
2. The purpose of the entry;
3. The date and the authorized duration of the entry permit;
4. The authorized entrants within the permit space, by name or by such other means (for example, through the use of rosters or tracking systems) as will enable the attendant to determine quickly and accurately, for the duration of the permit, which authorized entrants are inside the permit space;
5. Means of detecting an increase in atmospheric hazard levels in the event the ventilation system stops working;
6. Each person, by name, currently serving as an attendant;
7. The individual, by name, currently serving as entry supervisor, and the signature or initials of each entry supervisor who authorizes entry;
8. The hazards of the permit space to be entered;
9. The measures used to isolate the permit space and to eliminate or control permit space hazards before entry. Those measures can include, but are not limited to, the lockout or tagging of equipment and procedures for purging, inerting, ventilating, and flushing permit spaces.
10. The acceptable entry conditions;
11. The results of tests and monitoring performed, accompanied by the names or initials of the testers and by an indication of when the tests were performed;

12. The rescue and emergency services that can be summoned and the means (such as the equipment to use and the numbers to call) for summoning those services;
13. The communication procedures used by authorized entrants and attendants to maintain contact during the entry;
14. Equipment, such as personal protective equipment, testing equipment, communications equipment, alarm systems, and rescue equipment, to be provided for compliance with this standard;
15. Any other information necessary, given the circumstances of the particular confined space, to ensure employee safety; and
16. Any additional permits, such as for hot work, that have been issued to authorize work in the permit space.

Training:
The employer must provide training to each employee whose work is regulated by this standard, at no cost to the employee, and ensure that the employee possesses the understanding, knowledge, and skills necessary for the safe performance of the duties assigned under this standard.

This training must result in an understanding of the hazards in the permit space and the methods used to isolate, control or in other ways protect employees from these hazards, and for those employees not authorized to perform entry rescues, in the dangers of attempting such rescues.

Training required by this section must be provided to each affected employee:
1. In both a language and vocabulary that the employee can understand;
2. Before the employee is first assigned duties under this standard;
3. Before there is a change in assigned duties;
4. Whenever there is a change in permit space entry operations that presents a hazard about which an employee has not previously been trained; and
5. Whenever there is any evidence of a deviation from the permit space entry procedures or there are inadequacies in the employee's knowledge or use of these procedures.

The training must establish employee proficiency in the duties required by this standard and must introduce new or revised procedures, as necessary, for compliance with this standard. The employer must maintain training records to show that the training has been accomplished. The training records must contain each employee's name, the name of the trainers, and the dates of training. The documentation must be available for inspection by employees and their authorized representatives, for the period of time the employee is employed by that employer.

Authorized Entrants Responsibility:
The entry employer must ensure that all authorized entrants:
1. Are familiar with and understand the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
2. Properly use equipment as required;
3. Communicate with the attendant as necessary to enable the attendant to assess entrant status and to enable the attendant to alert entrants of the need to evacuate the spaces;
4. Alert the attendant whenever:
    a. There is any warning sign or symptom of exposure to a dangerous situation; or

    b. The entrant detects a prohibited condition; and
5. Exit from the permit space as quickly as possible whenever:
    a. An order to evacuate is given by the attendant or the entry supervisor;
    b. There is any warning sign or symptom of exposure to a dangerous situation;
    c. The entrant detects a prohibited condition; or
    d. An evacuation alarm is activated.

Attendants Responsibility

The entry employer must ensure that each attendant:

1. Is familiar with and understands the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
2. Is aware of possible behavioral effects of hazard exposure in authorized entrants;
3. Continuously maintains an accurate count of authorized entrants in the permit space and ensures that the means used to identify authorized entrants;
4. Remains outside the permit space during entry operations until relieved by another attendant;
5. Communicates with authorized entrants as necessary to assess entrant status and to alert entrants of the need to evacuate the space;
6. Assesses activities and conditions inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions:
    a. If there is a prohibited condition;
    b. If the behavioral effects of hazard exposure are apparent in an authorized entrant;
    c. If there is a situation outside the space that could endanger the authorized entrants; or
    d. If the attendant cannot effectively and safely perform all the duties required;
7. Summons rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards;
8. Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway:
    a. Warns the unauthorized persons that they must stay away from the permit space;
    b. Advises the unauthorized persons that they must exit immediately if they have entered the permit space; and
    c. Informs the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space;
9. Performs non-entry rescues as specified by the employer's rescue procedure; and
10. Performs no duties that might interfere with the attendant's primary duty to assess and protect the authorized entrants.

Entry Supervisor Responsibility

The entry employer must ensure that each entry supervisor:

1. Is familiar with and understands the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
2. Verifies, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin;

3. Terminates the entry and cancels or suspends the permit as required;
4. Verifies that rescue services are available and that the means for summoning them are operable, and that the employer will be notified as soon as the services become unavailable;
5. Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations; and
6. Determines, 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 terms of the entry permit and that acceptable entry conditions are maintained.

Rescue and Emergency Services:
An employer whose employees have been designated to provide permit space rescue and/or emergency services must take the following measures and provide all equipment and training at no cost to those employees:

1. Provide each affected employee with the personal protective equipment (PPE) needed to conduct permit space rescues safely and train each affected employee so the employee is proficient in the use of that PPE;
2. Train each affected employee to perform assigned rescue duties. The employer must ensure that such employees successfully complete the training required and establish proficiency as authorized entrants;
3. Train each affected employee in basic first aid and cardiopulmonary resuscitation (CPR). The employer must ensure that at least one member of the 26 rescue team or service holding a current certification in basic first aid and CPR is available; and
4. Ensure that affected employees practice making permit space rescues before attempting an actual rescue, and at least once every 12 months, by means of simulated rescue operations in which they remove dummies, manikins, or actual persons from the actual permit spaces or from representative permit spaces, except practice rescue is not required where the affected employees properly performed a rescue operation during the last 12 months in the same permit space the authorized entrant will enter, or in a similar permit space. Representative permit spaces must, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue to be performed.

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. The employer must designate an entry rescue service whenever non-entry rescue is not selected. Whenever non-entry rescue is selected, the entry employer must ensure that retrieval systems or methods are used whenever an authorized entrant enters a permit space, and must confirm, prior to entry, that emergency assistance would be available in the event that non-entry rescue fails. Retrieval systems must meet the following requirements:

1. Each authorized entrant must use a chest or full body harness, with a retrieval line attached at the center of the entrant’s back near shoulder level, above the entrant’s head, or at another point which the employer can establish presents a profile small enough for the successful removal of the entrant.
2. The other end of the retrieval line must be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer

becomes aware that rescue is necessary. A mechanical device must be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.

3. Equipment that is unsuitable for retrieval must not be used, including, but not limited to, retrieval lines that have a reasonable probability of becoming entangled with the retrieval lines used by other authorized entrants, or retrieval lines that will not work due to the internal configuration of the permit space. If an injured entrant is exposed to a substance for which a Safety Data Sheet (SDS) or other similar written information is required to be kept at the worksite, that SDS or written information must be made available to the medical facility treating the exposed entrant.

APPENDICES:

Definitions:

Acceptable entry conditions means the conditions that must exist in a permit space, before an employee may enter that space, to ensure that employees can safely enter into, and safely work within, the space.

Attendant means an individual stationed outside one or more permit spaces who assesses the status of authorized entrants and who must perform the duties specified in §1926.1209.

Authorized entrant means an employee who is authorized by the entry supervisor to enter a permit space.

Barrier means a physical obstruction that blocks or limits access. Blanking or blinding means the absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

Competent person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.

Confined space means a space that: (1) Is large enough and so configured that an employee can bodily enter it; (2) Has limited or restricted means for entry and exit; and (3) Is not designed for continuous employee occupancy.

Control means the action taken to reduce the level of any hazard inside a confined space using engineering methods (for example, by ventilation), and then using these methods to maintain the reduced hazard level. Control also refers to the engineering methods used for this purpose. Personal protective equipment is not a control.

Controlling Contractor is the employer that has overall responsibility for construction at the worksite.

Note. If the controlling contractor owns or manages the property, then it is both a controlling employer and a host employer.

Double block and bleed means the closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Early-warning system means the method used to alert authorized entrants and attendants that an engulfment hazard may be developing. Examples of early-warning systems include, but are not limited to: alarms activated by remote sensors; and lookouts with equipment for immediately communicating with the authorized entrants and attendants.

Emergency means any occurrence (including any failure of power, hazard control or monitoring equipment) or event, internal or external, to the permit space that could endanger entrants. Engulfment means the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, crushing, or suffocation.

Entry means the action by which any part of a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space, whether or not such action is intentional or any work activities are actually performed in the space.

Entry Employer means any employer who decides that an employee it directs will enter a permit space. Note. An employer cannot avoid the duties of the standard merely by refusing to decide whether its employees will enter a permit space, and OSHA will consider the failure to so decide to be an implicit decision to allow employees to enter those spaces if they are working in the proximity of the space.

Entry permit (permit) means the written or printed document that is provided by the employer who designated the space a permit space to allow and control entry into a permit space and that contains the information specified in §1926.1206 of this standard.

Entry rescue occurs when a rescue service enters a permit space to rescue one or more employees.

Entry supervisor means the qualified person (such as the employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this standard.

> Note. An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this standard for each role he or she fills. Also, the duties of entry supervisor may be passed from one individual to another during the course of an entry operation.

Hazard means a physical hazard or hazardous atmosphere. See definitions below. Hazardous atmosphere means an atmosphere that may expose employees to the risk of death,

incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

(1) Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);

(2) Airborne combustible dust at a concentration that meets or exceeds its LFL; Note: This concentration may be approximated as a condition in which the combustible dust obscures vision at a distance of 5 feet (1.52 meters) or less.

(3) Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent; (4) Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart D—Occupational Health and Environmental Control, or in Subpart Z—Toxic and Hazardous Substances, of this part and which could result in employee exposure in excess of its dose or permissible exposure limit;

Note. An atmospheric concentration of any substance that is not capable of causing death, incapacitation, impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this definition.

(5) Any other atmospheric condition that is immediately dangerous to life or health.

Note. For air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as Safety Data Sheets that comply with the Hazard Communication Standard, §1926.59 of this part, published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

Host employer means the employer that owns or manages the property where the construction work is taking place.

Note. If the owner of the property on which the construction activity occurs has contracted with an entity for the general management of that property, and has transferred to that entity the information specified in §1203(h)(1), OSHA will treat the contracted management entity as the host employer for as long as that entity manages the property. Otherwise, OSHA will treat the owner of the property as the host employer. In no case will there be more than one host employer.

Hot work means operations capable of providing a source of ignition (for example, riveting, welding, cutting, burning, and heating).

Immediately dangerous to life or health (IDLH) means any condition that would interfere with an individual’s ability to escape unaided from a permit space and that poses a threat to life or that would cause irreversible adverse health effects.

Note. Some materials—hydrogen fluoride gas and cadmium vapor, for example—may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse 12-72 hours after exposure. The victim "feels normal" after recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be “immediately” dangerous to life or health.

Inerting means displacing the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

Note. This procedure produces an IDLH oxygen-deficient atmosphere.

Isolate or isolation means the process by which employees in a confined space are completely protected against the release of energy and material into the space, and contact with a physical hazard, by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; blocking or disconnecting all mechanical linkages; or placement of barriers to eliminate the potential for employee contact with a physical hazard.

Limited or restricted means for entry or exit means a condition that has a potential to impede an employee's movement into or out of a confined space. Such conditions include, but are not limited to, trip hazards, poor illumination, slippery floors, inclining surfaces and ladders.

Line breaking means the intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

Lockout means the placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lower flammable limit or lower explosive limit means the minimum concentration of a substance in air needed for an ignition source to cause a flame or explosion.

Monitor or monitoring means the process used to identify and evaluate the hazards after an authorized entrant enters the space. This is a process of checking for changes that is performed in a periodic or continuous manner after the completion of the initial testing or evaluation of that space.

Non-entry rescue occurs when a rescue service, usually the attendant, retrieves employees in a permit space without entering the permit space.

Non-permit confined space means a confined space that meets the definition of a confined space but does not meet the requirements for a permit-required confined space, as defined in this subpart.

Oxygen deficient atmosphere means an atmosphere containing less than 19.5 percent oxygen by volume.

Oxygen enriched atmosphere means an atmosphere containing more than 23.5 percent oxygen by volume.

Permit-required confined space (permit space) means a confined space that has one or more of the following characteristics:

(1) Contains or has a potential to contain a hazardous atmosphere;

(2) Contains a material that has the potential for engulfing an entrant;

(3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
(4) Contains any other recognized serious safety or health hazard. Permit-required confined space program (permit space program) means the employer's overall program for controlling, and, where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.

Physical hazard means an existing or potential hazard that can cause death or serious physical damage.

- Examples include, but are not limited to: explosives; mechanical, electrical, hydraulic and pneumatic energy; radiation; temperature extremes; engulfment; noise; and inwardly converging surfaces.
- Physical hazard also includes chemicals that can cause death or serious physical damage through skin or eye contact (rather than through inhalation).

Prohibited condition means any condition in a permit space that is not allowed by the permit during the period when entry is authorized.
A hazardous atmosphere is a prohibited condition unless the employer can demonstrate that personal protective equipment (PPE) will provide effective protection for each employee in the permit space and provides the appropriate PPE to each employee.

Qualified person means 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.

Representative permit space means a mock-up of a confined space that has entrance openings that are similar to, and is of similar size, configuration, and accessibility to, the permit space that authorized entrants enter.

Rescue means retrieving, and providing medical assistance to, one or more employees who are in a permit space.

Rescue service means the personnel designated to rescue employees from permit spaces.
Retrieval system means the equipment (including a retrieval line, chest or full body harness, wristlets or anklets, if appropriate, and a lifting device or anchor) used for nonentry rescue of persons from permit spaces.

Serious physical damage means an impairment or illness in which a body part is made functionally useless or is substantially reduced in efficiency. Such impairment or illness may be permanent or temporary and includes, but is not limited to, loss of consciousness, disorientation, or other immediate and substantial reduction in mental efficiency. Injuries involving such impairment would usually require treatment by a physician or other licensed health-care professional.

Tagout means:(1) Placement of a tagout device on a circuit or equipment that has been deenergized, in accordance with an established procedure, to indicate that the circuit or equipment being controlled may not be operated until the tagout device is removed; and (2) The employer ensures that (i) tagout provides equivalent protection to lockout, or (ii) that lockout is infeasible and the employer has relieved, disconnected, restrained and otherwise rendered safe stored (residual) energy.

Test or testing means the process by which the hazards that may confront entrants of a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.

> Note. Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to, and during, entry.

Ventilate or ventilation means controlling a hazardous atmosphere using continuous forced-air mechanical systems that meet the requirements of §1926.57—Ventilation.

SECTION 17 FIRST AID & BLOODBORNE PATHOGENS

First Aid Policies & Procedures

1. All foremen, lead workers, and safety committee members (Safety Officers) are required to maintain certification in First Aid and CPR.

2. All subcontractors are required to have at least (1) one certified First Aid and CPR provider on site while they are working. For subcontractor crews that are working with less then (3) three people on the site, this requirement shall be waived.

3. First aid equipment, CPR barrier masks, and Bloodborne Pathogen Control Kits shall be made available on each job site, and in each marked company vehicle.

4. All Laney Company job sites will be equipped with a first aid kit regardless of the number of personnel. If there are more then 50 persons on the site, a second cabinet shall be provided for the site.

5. All injuries requiring first aid shall be reported and a First Report of Injury form completed as required in section 103 of this manual.

6. All exposures to body fluids including blood, and urine shall be reported to the site foreman immediately, and a First Report of Injury form and exposure report shall be completed.

7. Foremen are required to inspect their assigned first aid cabinets on a monthly basis.

8. All employees who are trained in first aid and CPR are required to provide care to the best of their ability for their co-workers in the event of an injury.

First Aid Incidents

Employees will report all injuries, no matter how slight they may appear, to the job superintendent and the Safety Director. These cases will be promptly treated and recorded in the following manner:

(a) Name, age and address of injured employee.

(b) Date and time of accident.

(c) Nature of injury.

(d) Brief description of accident.

(e) Brief statement by supervisor concerning method of preventing similar type accident.

(f) The required record of exposure will be submitted with each payment estimate.

First Aid Kits are stocked with adequate supplies of first aid materials and personal protective equipment in compliance with the provisions of the Occupational Exposure to Bloodborne Pathogens standard 29 CFR 1910.1030(d)(3).

The Laney Companies will ensure that medical personnel are easily accessible to workers. At least one person on jobsites will be trained to provide first aid if the jobsite is not close to a hospital or clinic.

Bloodborne Pathogens:

Policy:

The Laney Companies is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this goal, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens."

The ECP is a key document to assist our organization in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- Determination of employee exposure
- Implementation of various methods of exposure control, including:
  - Universal precautions
  - Engineering and work practice controls
  - Personal protective equipment
  - Housekeeping
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- Communication of hazards to employees and training
- Recordkeeping
- Procedures for evaluating circumstances surrounding exposure incidents

Implementation methods for these elements of the standard are discussed in the subsequent pages of this ECP.

Bloodborne Pathogen – pathogenic microorganisms that are present in human blood and can cause disease in humans. Pathogens include but are not limited to, hepatitis B virus (HPV) and human immunodeficiency virus (HIV).

Universal Precautions – an approach to infection control. According to this philosophy all human blood and bodily fluids are treated as if known to be infectious for bloodborne pathogens.

All employees using PPE must observe the following precautions:

- Wash hands immediately or as soon as feasible after removing gloves or other PPE.
- Remove PPE after it becomes contaminated and before leaving the work area.
- Used PPE may be disposed of in (List appropriate containers for storage, laundering, decontamination, or disposal.)
- Wear appropriate gloves when it is reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured or contaminated, or if their ability to function as a barrier is compromised.
- Utility gloves may be decontaminated for reuse if their integrity is not compromised; discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration.
- Never wash or decontaminate disposable gloves for reuse.
- Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.
- Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

Exposure Control Plan Employees covered by the bloodborne pathogens standard receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees can review this plan at any time during their work shifts by contacting management. If requested, we will provide an employee with a copy of the ECP free of charge and within 15 days of the request.

Medical Support

First Aid Cases

Employees will report all injuries, no matter how slight they may appear, to the job superintendent. These cases will be promptly treated and recorded in the following manner:

(a) Name, age and address of injured employee.

(b) Date and time of accident.

(c) Nature of injury.

(d) Brief description of accident.

(e) Brief statement by supervisor concerning method of preventing similar type accident.

(f) The required record of exposure will be submitted with each payment estimate.

SECTION 18 DISCIPLINARY PROCEDURES & SAFETY INSPECTIONS

Each employee is expected to obey safety rules and to exercise caution in all work activities. Employees must immediately report any unsafe condition to the appropriate supervisor.

Employees who violate safety standards, who cause hazardous or dangerous situations, or who fail to report or, where appropriate, remedy such situations, may be subject to disciplinary action, up to and including dismissal from service.

You should be aware that there are certain major offenses, which may result in an immediate penalty of probation, or suspension subject to discharge, or discharge, without any prior counseling. In other words, if you commit a major offense, all or any part of our progressive counseling procedure may be omitted, in the company's discretion. In order to avoid such severe consequences, just follow simple common sense guides and avoid major offenses such as, but not limited to, the following:

- Failure to fulfill the responsibilities of the job to an extent that might or does cause injury to a person or damage to or loss of product, machinery, equipment, facilities, or other property of the company.
- Violation of a safety, drug-free workplace policy, Affirmative Action/EEO, fire prevention, health, or security rule, policy or practice.

To that end violations of the corporate safety program by employees will be dealt with in a consistent manner within a prescribed progressive discipline process as determined by the corporate safety director. Progressive discipline may be waived due to the seriousness of the violation at the discretion of either the Corporate Safety Director or Human Resources Manager.

Through the direction of the Safety Director and CFO, a defined disciplinary process will be established as follows:

Policies and Procedures Regarding Noncompliance:

1. Any employee who fails to follow safety procedures will immediately be subject to disciplinary actions.
2. Employees with minor first time violations will be reprimanded verbally and it shall be documented.
3. Employees with minor second time violations will be issued a written warning and a copy shall be kept on file and it may adversely affect personnel evaluations.
4. Employees with a minor third time violation will be subject to a suspension, as determined by company management.
5. A fourth offense of a safety procedure/rule will result in termination of employment.
6. A major offense will result in immediate termination without progressive discipline.

Procedures for holding managers and supervisors accountable for safety:

1. All managers and supervisors will follow company procedures regarding safety.
2. All managers and supervisors will monitor employees for safety.

3. All managers and supervisors will follow policies and procedures regarding noncompliance.
4. Managers and supervisors who do not follow policy will be reprimanded and it shall be noted in their personnel files.
5. Any manager or supervisor who willfully disregards or refuses to enforce safety policies will be subject to suspension and other disciplinary actions up to and including termination.

Safety Inspection & Hazard Identification Program

All competent persons identified by The Laney Companies on jobsites will have the training to recognize all known and presumed hazards on our jobsites and have the authority of Laney Company management to take prompt corrective actions to mitigate the hazards to prevent injuries to employees, subcontractors or the general public.

All employees at Laney Companies are trained and provided the opportunity to bring safety-related concerns to the attention of management representatives without the fear of retaliation. We strongly encourage employees to report to their supervisors or management any unsafe acts or conditions. We do not under any circumstance retaliate against an employee for exercising their right to report unsafe conditions at our worksites. During new-hire orientation, workers are provided training on hazards they will face on our jobsites, as well as the steps to recognize and protect against the same.

Laney Companies competent persons, and Dave Mayo our Safety Director, will periodically conduct jobsite safety audits to ensure compliance with Laney Companies written safety and health program and applicable state or federal OSHA regulations. Imminent danger hazards or noncompliance identified during an audit will be eliminated or corrected immediately. Safety inspections may also lead to employee disciplinary actions as discussed previously in this written program.

Additionally, as discussed in the next section, anytime there is a work-related injury on a jobsite a competent person will complete an incident investigation and safety inspection to determine what unsafe acts or conditions contributed to the employee injury.

SECTION 19 INCIDENT REPORTING

OSHA Reporting Requirements: On January 1, 2015 the Occupational Safety and Health Administration (OSHA) revised its requirements for reporting work-related injuries, illnesses and fatalities on jobsites. Beginning January 1, 2015 employers must now report all in-patient hospitalizations of 1 or more employees, and any amputations or loss of eye(s) to OSHA within 24-hours of the event. Additionally, employers must report fatalities to OSHA within 8-hours of event occurring. The Laney Companies will follow Federal OSHA’s reporting requirements, and all employees should be familiar with this section. While all employees have the right to a safe and healthful workplace, Laney Company management should be the ones designated to call OSHA in the event a reportable injury occurs.

Incident Investigations, Reports and Logs: Site supervisor or member of management will conduct incident investigations when the incident involves lost time or property damage.

- A written report will be maintained on each incident, injury or on the-job illness requiring medical treatment. A record of each such injury or illness recorded on OSHA Log and Summary of Occupational Injuries Forms 300A according to the instructions; and Supplemental records of each injury are maintained on OSHA Form 300.
- Every year a summary of all reported injuries or illness is posted no later than February 1 through April 30, on OSHA Form 300A. These records are maintained for five years from the date of preparation.

Notification of Incident or Injury: Any illness or injury that you suffer on the job must be reported immediately to your direct supervisor (for field employees that would be the site foreman). The supervisor will complete and turn into the Safety Department an Incident Report before the end of the work shift, after being notified of the injury.

Motor Vehicle Incident: A motor vehicle incident is defined as: involving any motor vehicle equipped with speedometer and state license tag, and used for transportation of passengers and/or materials over public highways onsite.

Exception: Vehicle is damaged while properly parked or Vehicle is damaged by Act of God.

SECTION 20 PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment:
The Laney Companies requires the use of personal protective equipment (PPE) for all employees, contractors, or visitors who are on the premises who are exposed to hazards which may cause injury or illness.

Where employees provide their own protective equipment, Laney Company will ensure its adequacy, including proper maintenance, and sanitation of such equipment.

The Laney Companies will evaluate each workplace to determine if there are hazards present*, or are likely to be present, which necessitate the use of PPE.
If such hazards are present, Laney Companies will:

- Select and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment.
- Communicate selection decisions to each affected employees.
- Select PPE that properly fits each affected employee.

*Please refer to Activity Hazard Analysis section of the Laney Companies Written Safety Program for additional information on the process to conduct the PPE hazard analysis.

Training – Laney Companies will train all employees on at least the following elements:

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

All employees will be responsible for demonstrating an understanding of the training and the ability to properly use the PPE, before being allowed to perform the work requiring its use.

Any employee who does not have the understanding or skill to properly wear the PPE will be retrained. Additionally, retraining will take place anytime changes in the workplace render previous training obsolete, changes in the type of PPE to be used, or inadequacies in any employees understanding or skill in the use of PPE.

Damaged or defective equipment will not be used and will be tagged from service and discarded.

Eye and Face Protection

Laney Company will ensure that all safety glasses used will comply with ANSI Z87.1 standards. Additionally, side shields or safety glasses with side shields shall be worn where there is a hazard from flying object hazards.

Foot Protection

All employees, contractors, or visitors must wear closed-toes shoes with thick soles to prevent puncture injuries on jobsites.

Employees shall also wear safety-toed shoes. Protective footwear purchased after July 5, 1994 shall comply with **ASTM F-2412-2005 and ASTM F-2413-2005**.

Head Protection

- Employees must wear hard hats when overhead, falling, or flying hazards exist, or when danger of electrical shock is present.
- Inspect hard hats routinely for dents, cracks, or deterioration.

- If a hard hat has taken a heavy blow or electrical shock, you must replace it even if you detect no visible damage.
- Maintain hard hats. Do not drill them, clean them with strong detergents or solvents, paint them or store them in extreme temperatures.

Employees are not required to wear hard hats where no applicable hazard exists or where use is contraindicated by the task. Only the jobsite superintendent has the authority to make the determination that hard hats will not be required. Individual employees or subcontractors must have superintendent approval before removing hard hats.

Class G (General)

- Class G hard hats are intended to reduce the danger of contact exposure to low voltage conductors. Test samples are proof tested at 2200 volts (phase to ground). However, this voltage is not intended as an indication of the voltage at which the hard hat protects the wearer. Please note: Class G hard hats were formerly known as Class A.

Class E (Electrical)

- Class E hard hats are intended to reduce the danger of exposure to high voltage conductors. Test samples are proof-tested at 20,000 volts (phase to ground). However, this voltage is not intended as an indication of the voltage at which the helmet protects the wearer. Please note: Class E hard hats were formerly known as Class B.

Affected employees must wear hard-hats that comply with ANSI Z89.1-1986.

Hand Protection

Persons involved in activities which subject the hands to injury (e.g. cuts, abrasions, punctures, burns chemical irritants, and toxins) shall use hand protection appropriate to the hazard.

Clothing- employees exposed to the hazards created by welding, cutting, or brazing operations shall be provided appropriate protective clothing for the task at hand. The level of protection may vary depending upon the activity being performed and the magnitude of the hazards.

Noise Protection

Workers must use hearing protection (i.e., earmuffs or earplugs) when exposed to hazardous levels of sound from tools or heavy equipment.

If hearing protection is required on jobsite, a written hearing-protection program will be implemented.

SECTION 21 LOCKOUT/TAGOUT PROGRAM

ASSIGNMENT OF RESPONSIBILITY

All employees of Laney Companies will be responsible for following the practices, procedures, and policies listed in the Lockout Tagout Program. The program will be managed and audited

The Lockout Tagout Program covers the servicing and maintenance of machines and equipment in which the “unexpected” energization or startup of the machines or equipment. Or release of stored energy could cause injury to employees.

Scope:

This program applies to the control of energy during servicing and/or maintenance of machines and equipment. These procedures must be followed anytime an employee is required to remove or bypass a guard or other safety device; where an employee is required to place any part of their body into an area on a machine or piece of equipment where work is actually being performed upon the material being processed (point of operation) or where associated danger zones exist during a machine operating cycle.

Exception:

This program does not cover work on cord and plug connected electrical equipment for which exposure of unexpected energization or startup of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the service or maintenance.

Definitions:

Affected employee - An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

Authorized employee - A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.

Capable of being locked out - An energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.

Energized - Connected to an energy source or containing residual or stored energy.

Energy isolating device - A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

Energy source - Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Lockout - The placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout device - A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

Servicing and/or maintenance - Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

Tagout - The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Tagout device - A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Contractor Responsibility:
Each contractor will be responsible for implementing the lockout/tagout program. Contractors are responsible for enforcing the program and insuring compliance with the procedures in their departments.

A. Preparation for Lockout or Tagout
1. Preparation for shutdown - before an authorized or affected employee turns off a machine of equipment, the authorized employee must understand the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.

2. Machines or equipment must be turned off or shutdown using orderly procedures to avoid any additional or increased hazards to employees as the result of equipment stoppage.

Locking Out Equipment:
Employees who are required to utilize the lockout/tagout procedure must be knowledgeable of the different energy sources and the proper sequence of shutting off or disconnecting energy means. The four most common types of energy sources are:

1. electrical (most common form);
2. hydraulic or pneumatic;
3. fluids and gases; and
4. mechanical (including gravity).

More than one energy source may be utilized on some equipment and the proper procedure must be followed in order to identify energy sources and lockout/tagout accordingly.

A. Electrical

1. Shut off power at machine and disconnect.
2. Disconnecting means must be locked or tagged.
3. Press start button to see that correct systems are locked out.
4. All controls must be returned to their safest position.
5. Points to remember:

a. If a machine or piece of equipment contains capacitors, they must be drained of stored energy.
b. Possible disconnecting means include the power cord, power panels (look for primary and secondary voltage), breakers, the operator's station, motor circuit, relays, limit switches, and electrical interlocks.

c. Some equipment may have a motor isolating shut-off and a control isolating shut-off.

d. If the electrical energy is disconnected by simply unplugging the power cord, the cord must be kept under the control of the authorized employee or the plug end of the cord must be locked out or tagged out.

B. Hydraulic/Pneumatic

1. Shut off all energy sources (pumps and compressors). If the pumps and compressors supply energy to more than one piece of equipment, lockout or tagout the valve supplying energy to the piece of equipment being serviced.
2. Stored pressure from hydraulic/pneumatic lines shall be drained/bled when release of stored energy could cause injury to employees.
3. Make sure controls are returned to their safest position (off, stop, standby, inch, jog, etc.).

C. Fluids and Gases

1. Identify the type of fluid or gas and the necessary personal protective equipment.
2. Close valves to prevent flow, and lockout/tagout.
3. Determine the isolating device, then close and lockout/tagout.
4. Drain and bleed lines to zero energy state.
5. Some systems may have electrically controlled valves. If so, they must be shut off and locked/tagged out.
6. Check for zero energy state at the equipment.

D. Mechanical Energy

Mechanical energy includes gravity activation, energy stored in springs, etc.

1. Block out or use die ram safety chain.
2. Lockout or tagout safety device.
3. Shut off, lockout or tagout electrical system.
4. Check for zero energy state.
5. Return controls to safest position.

E. Release from Lockout/Tagout

1. Inspection: Make certain the work is completed and inventory the tools and equipment that were used.
2. Clean-up: Remove all towels, rags, work-aids, etc.
3. Replace guards: Replace all guards possible. Sometimes a particular guard may have to be left off until the start sequence is over due to possible adjustments. However, all other guards should be put back into place.
4. Check controls: All controls should be in their safest position.
5. The work area shall be checked to ensure that all employees have been

safely positioned or removed and notified that the lockout/tagout devices are being removed.

6. Remove locks/tags. Remove only your lock or tag.

F. Service or Maintenance Involving More than One Person

When servicing and/or maintenance is performed by more than one person, each authorized employee shall place his own lock or tag on the energy isolating source. This shall be done by utilizing a multiple lock scissors clamp if the equipment is capable of being locked out. If the equipment cannot be locked out, then each authorized employee must place his tag on the equipment.

G. Removal of an Authorized Employee's Lockout/Tagout by the Company

Each lockout or tagout device shall be removed by the employee who installed/applied the device. In a situation where the authorized employee who applied the lockout or tagout device is not available to remove it; the device may be removed under the direction of Laney Company management. Employees must follow the following procedures for removing lockout/tagout devices if the authorized employee is not available to remove them:

1. Verification by Laney Company that the authorized employee who applied the device is not on the jobsite.

2. Make reasonable efforts to advise the employee that his/her device has been removed. (This can be done when he/she returns to the jobsite).

3. Ensure that the authorized employee has this knowledge before he/she resumes work at the jobsite.

H. Shift or Personnel Changes

Follow the following procedures for ensuring the equipment is locked out during shift or personnel changes:

- The maximum permitted duration for lockout is **one shift** or the end of the task, whichever is shorter.
- If the lockout task cannot be completed by the end of the shift, one of the following two methods should be utilized to ensure that a piece of equipment is never left in an unsecured state.

Option 1:

- Authorized employees on the outgoing shift will remove their personal locks while authorized individuals from the ongoing shift simultaneously apply and secure their personal locks to the energy isolation devices.
- Zero energy state will be verified in accordance with the instructions in the equipment-specific lockout procedure.

Option 2:

- A supervisor will install transition locks on energy isolation devices
- Outgoing authorized employees will remove their personal locks on energy isolation devices
- Oncoming authorized employees will install the personal locks on energy isolation devices and verify zero energy state as outlined in equipment-specific procedure

- A supervisor will remove the transition locks

I. Procedures for Outside Personnel/Contractors

Outside personnel/contractors shall be advised that the company has and enforces the use of lockout/tagout procedures. They will be informed of the use of locks and tags and notified about the prohibition of attempts to restart or re-energize machines or equipment that are locked out or tagged out.

J. Training and Communication

Each authorized employee who will be utilizing the lockout/tagout procedure will be trained in the recognition of applicable hazardous energy sources, type and magnitude of energy available in the work place, and the methods and means necessary for energy isolation and control.

Each affected employee (all employees other than authorized employees utilizing the lockout/tagout procedure) shall be instructed in the purpose and use of the lockout/tagout procedure, and the prohibition of attempts to restart or re-energize machines or equipment that are locked out or tagged out.

Training records will be retained in the employee personnel files.

K. Periodic Inspection

A periodic inspection (at least annually) will be conducted of each authorized employee under the lockout/tagout procedure. This inspection shall be performed by The Laney Companies.

The inspection will include a review between the inspector and each authorized employee of that employee's responsibilities under the energy control (lockout/tagout) procedure. The inspection will also consist of a physical inspection of the authorized employee while performing work under the procedures.

This training shall be certified in writing that the inspection has been performed. The written training shall be retained in the individual's personnel file.

Steps for Locking/Tagging Out Equipment:

1. Follow all procedures listed in *attachment E* ***Lockout Checklist and Procedures*** 3-page document; attached as “Lockout Procedures”.

Reference:

Attachment A – List of Authorized Personnel for Lockout/Tagout Procedures
Attachment B – Certification of Training – Authorized Personnel
Attachment C – Certification of Training – Affected Personnel
Attachment D – Lockout/Tagout Inspection Certification
Attachment E – Lockout/Tagout Checklist and Procedures

ATTACHMENT A

List of Authorized Personnel for Lockout/Tagout Procedures

Name	Job Title

ATTACHMENT B

Certification of Training
(Authorized Personnel)

I certify that I received training as an authorized employee under Laney Companies Lockout/Tagout program.

I further certify that I understand the procedures and will abide by those procedures.

_____ _____

AUTHORIZED EMPLOYEE SIGNATURE DATE

ATTACHMENT C

Certification of Training
(Affected Personnel)

I certify that I received training as an Affected Employee under ***Company Name*** Lockout/Tagout Program.

I further certify and understand that I am prohibited from attempting to restart or re-energize machines or equipment that are locked out or tagged out.

_____ _____

AUTHORIZED EMPLOYEE SIGNATURE DATE

ATTACHMENT D

Lockout/Tagout Inspection Certification

I certify that ***Equipment*** was inspected on this date utilizing lockout/tagout procedures. The inspection was performed while working on ***Equipment*** .

_____ _____

AUTHORIZED EMPLOYEE SIGNATURE DATE

_____ _____

INSPECTOR SIGNATURE DATE

SECTION 22 ACTIVITY HAZARD ANALYSIS

OVERVIEW

An activity hazard analysis is a procedure used to review job methods and find hazards. These Hazards may have been overlooked from the start or they may have developed after production work has started. Once the hazards are known, the best solution or control can be developed. The person best suited to develop the analysis is the foreman or line supervisor. The foreman has most likely put his or her time in at the “trench level”. The foreman has probably spent 5 to 10 years of work doing the job that he or she is now supervising. The foreman has made the mistakes, seen the hazards, and probably has the best suggestions on how to make the job safer. One the analysis rough draft is done, it should then be reviewed by a safety person who is charged with the responsibility to manage and oversee the safety program. The safety will review the analysis on a technical level, check to see if any hazards were overlooked, and review the control measures to see if the best solutions were chosen.

Preparing the AHA

Below is a sample AHA form for purposes of this instruction. View the instructions below for detailed explanations and suggests.

ACTIVITY HAZARD ANALYSIS (AHA)

Contract or Project: _____ Short Title: _____	Job Task:_____ Phase of Work: STEP 1	Date:_____ Est. Start Date:_____
PRINCIPAL STEPS	POTENTIAL HAZARDS RECOMMENDED	CONTROLS

STEP 2	STEP 3	STEP 4
Equipment Used	Inspection Requirements	Training Requirements
STEP 5	STEP 6	STEP 7
Employee (SIGNATURE & DATE):		
AHA discussed with supervisor/manager on _____ Date Accepted:_____		

Step 1:
Select a phase of work to analyze. There are many “phases” to each project with their own particular safety hazards. The following are examples of phases or work:

Material Delivery, Fabrication, Welding, Cutting, Finishing.

There may be more than 2 phases within a particular major phase of work.

Step 2:
Break the activity (phase) down into successive steps. The successive steps are listed in logical sequence and in the order that the work is actually performed.

Step 3:
Identify the hazards and potential mishaps. The hazards are listed for each step of the work. Past experience and common sense will enable development of a useful list. The following list of questions will help in identifying most of the hazards:

— Is there a danger of striking against, being struck by, or otherwise making injurious contact with an object?
— Can the employee be caught in, on, or between objects
— Can the employee slip or trip?
— Can the employee fall on the same level or to another?
— Can the employee strain themselves by pushing, pulling or lifting?
— Is there a possibility of employee coming in contact with a hazardous chemical or substance?

Step 4:
Develop a recommended control for each hazard. Solutions to the hazards identified must be developed. The following questions will help in coming up ideas for the best solution:

—How can the conditions be changed to eliminate the hazard?
—What can the employee do or not do to prevent an accident or eliminate the hazard?

—Something be done to reduce the number of times that task will be performed?

Step 5:
List equipment to be used in the work activity or within the successive steps. List only that equipment to be used during the phase of work. If additional equipment is identified at a later date or change in type of equipment is necessary for the safe execution of the work, this portion of the AHA must be update and revised AHA submitted for review and acceptance by the designated government representative.

Step 6:
List inspection requirements for the work activity and equipment. The requirement of the OSHA standards must be reviewed to ensure that all equipment inspection and certification requirements are performed prior to initial use of such equipment at jobsites.

Step 7:
List the training requirements for the use of any machinery, equipment and work activity.
The following should be considered relating to training requirements:
—Hazard Communication
—Equipment Operators
—Hazardous Waste Operations (HAZWOPER)
—Confined Spaces
—Ergonomics (Repetitive motion, back, etc.)

Update as needed
The completed analysis is not set in stone. Field changes take place every day and these changes may create new hazards. Also, for example, a delay in a different activity could result in multiple activities working in close proximity with each other thus creating a multitude of hazards. In order for the hazard analysis to be affective, it should be updated as the activity progresses.

Benefits
A properly developed and executed activity hazard analysis will reap many rewards.
The amount of insurance premiums paid largely depends on past accident history. The implementation of the activity hazard analysis process will reduce the number of accidents on jobsites. This may in turn reduce workman's compensation premiums. With lower premiums, this should result in lower job quotations or bids. Accidents cost money. For every accident there are obvious costs (doctor, hospitals, etc.) as well as the hidden costs (training new employees to do their job, drop in morale, etc.). By reducing accidents, there are costs savings as well as increased profit margins.

There are benefits to an effective safety training program. Establishing safety contacts between line supervisors and workers on a one on one basis promotes good safety awareness and increases morale. This is particularly important for new employees.

SECTION 23 HAZARD COMMUNICATION / GHS

GHS is an acronym for the Globally Harmonized System for the Classification and Labeling Chemicals.

OSHA published the final rule aligning the Hazard Communication Standard with the GHS in March, 2012. Employers have until December 1, 2013 to train their employees on the new labeling elements, format of new Safety Data Sheets (SDS), and other portions of the new rule.

Major changes to the Hazard Communication Standard:

- Hazard classification: Chemical manufacturers and importers are required to determine the hazards of the chemicals they produce or import. Hazard classification under the new, updated standard provides specific criteria to address health and physical hazards as well as classification of chemical mixtures.
- Labels: Chemical manufacturers and importers must provide a label that includes a signal word, pictogram, hazard statement, and precautionary statement for each hazard class and category.
- Safety Data Sheets: The new format requires 16 specific sections, ensuring consistency in presentation of important protection information.
- Information and training: To facilitate understanding of the new system, the new standard requires that workers be trained by December 1, 2013 on the new label elements and safety data sheet format, in addition to the current training requirements.

NEW Pictograms and Hazards

Health Hazard

- **Carcinogen**
- **Mutagenicity**
- **Reproductive Toxicity**
- **Respiratory Sensitizer**
- **Target Organ Toxicity**
- **Aspiration Toxicity**

Flame

- **Flammables**
- **Pyrophorics**

- **Self-Heating**
- **Emits Flammable Gas**
- **Self-Reactives**
- **Organic Peroxides**

Exclamation Mark

- **Irritant (skin and eye)**
- **Skin Sensitizer**
- **Acute Toxicity**
- **Narcotic Effects**
- **Respiratory Tract Irritant**
- **Hazardous to Ozone Layer (Non-Mandatory)**

Gas Cylinder

- **Gases Under Pressure**

Corrosion

- **Skin Corrosion/Burns**
- **Eye Damage**
- **Corrosive to Metals**

Exploding Bomb

- **Explosives**
- **Self-Reactives**
- **Organic Peroxides**

Flame Over Circle

- **Oxidizers**

Environment
(Non-Mandatory)

- **Aquatic Toxicity**

Skull and Crossbones

- **Acute Toxicity (fatal or toxic)**

Compliance Dates:

Effective Completion Date	Requirement(s)	Who
December 1, 2013	Train employees on the new label elements and SDS format.	Employers
June 1, 2015* December 1, 2015	Comply with all modified provisions of this final rule, except: Distributors may ship products labeled by manufacturers under the old system until December 1, 2015.	Chemical manufacturers, importers, distributors and employers
June 1, 2016	Update alternative workplace labeling and hazard communication program as necessary, and provide additional employee training for newly identified physical or health hazards.	Employers
Transition Period	Comply with either 29 CFR 1910.1200 (this final standard), or the current standard, or both.	All chemical manufacturers, importers, distributors and employers

What is a hazardous chemical? OSHA defines it as any chemical which is classified as a physical hazard or health hazard, a simple asphyxiant, combustible dust, pyrophoric gas or hazard not otherwise classified. Hazardous chemicals may have a variety of forms, including liquids, solids, gases, vapors, etc.

Health Hazard Chemicals – poses one or more of the following effects:

- Acute Toxicity
- Skin Corrosion or Irritation
- Eye Damage or Irritation
- Respiratory or Skin Sensitization
- Germ Cell Mutagenicity
- Carcinogenicity
- Aspiration Hazard
- Specific Target Organ Toxicity
- Reproductive Toxicity

Acute effects – severe and usually happen quickly from short-term exposures or even a single exposure.

Chronic effects – usually result from repeated, long-term exposures and last a long time.

Physical Hazard – poses one or more of the following effects:

- Explosive
- Flammable
- Oxidizer
- Self-Reactive
- Pyrophoric
- Self-Heating
- Organic Peroxides
- Corrosive to Metal
- Gas Under Pressure
- Water-Reactive

Signal Words:

“Danger” – used for more severe hazards

“Warning” – used for less severe hazards

Workplace Labeling Requirements

The current standard provides employers with flexibility regarding the type of system to be used in their workplaces and OSHA has retained that flexibility in the GHS standard.

Alternative labeling systems such as the National Fire Protection Association (NFPA) 704 Hazard Rating and the Hazardous Material Information System (HMIS) are permitted for workplace containers. However, the information supplied on these labels must be consistent with the revised HCS, e.g., no conflicting hazard warnings or pictograms.

Safety Data Sheets

Safety Data Sheets (SDS) provide information on how to work safely with chemicals, how to handle spills, how to provide first aid and how to properly clean-up spills.

The format of the 16-section SDS should include the following sections:

Section 1. Identification
Section 2. Hazard(s) identification
Section 3. Composition/information on ingredients
Section 4. First-Aid measures
Section 5. Fire-fighting measures
Section 6. Accidental release measures
Section 7. Handling and storage
Section 8. Exposure controls/personal protection
Section 9. Physical and chemical properties
Section 10. Stability and reactivity
Section 11. Toxicological information
Section 12. Ecological information
Section 13. Disposal considerations
Section 14. Transport information
Section 15. Regulatory information
Section 16. Other information, including date of preparation or last revision

Hazard Determination

M.T. Laney will rely on safety data sheets obtained from product suppliers to meet hazard determination requirements.

Labeling

A. Laney Company Safety will be responsible for seeing that all containers entering the workplace are properly labeled.
B. All labels shall be checked for:
    1. Identity of the material.
    2. Appropriate hazard warning for the material.
    3. Name and address of the responsible party. (Only if the container is received from the manufacturer, distributor, or importer.)
C. Each employee shall be responsible for ensuring that all portable containers used in their work area are labeled with the appropriate identity and hazard warning.

Safety Data Sheets (SDSs)

Safety Data Sheets will be located at Laney Companies Main Office. Additionally, copies will be made available upon request.

Multi-Employer Worksites - Informing Contractors

A. If our company exposes any employee of another employer to any hazardous chemicals that we produce, use, or store, the following information will be supplied to that employer:

1. The hazardous chemicals they may encounter.
2. Measures their employees can take to control or eliminate exposure to the hazardous chemicals.
3. The container and pipe labeling system used on-site.
4. Where applicable MSDSs can be reviewed or obtained.

B. Periodically, our employees may potentially be exposed to hazardous chemicals brought on our site by another employer. When this occurs we will obtain from that employer information pertaining to the types of chemicals brought on-site, and measures that should be taken to control or eliminate exposure to the chemicals.

List of Hazardous Chemicals

A list of all hazardous chemicals used by Laney Companies is available at www.mtlaney.com. Further information regarding any of these chemicals can be obtained by reviewing its respective SDS.

Materials which can be purchased by the ordinary household consumer, and which are used in the same fashion and amount as by the ordinary household consumer, are not required to be included in this list. (It is suggested that you maintain a separate list of all materials you consider to be "consumer use" materials.)

SECTION 24 ENVIRONMENTAL & BIOLOGICAL HAZARD PREVENTION PLAN

We recognize that heat stress and heat-related illnesses are a serious and dangerous hazard workers face in the construction industry. Excessive exposure to heat can cause a range of heat-related illnesses, from heat rash and heat cramps to heat exhaustion and heat stroke.

In order to protect workers from heat-related illnesses, workers and supervisors will be encouraged to monitor the U.S. National Oceanic and Atmospheric Administration (NOAA) heat index system. Supervisors will download the U.S. OSHA Heat Safety Tool which allows workers and supervisors to easily calculate the NOAA heat index. Additionally, we will require supervisors to take proactive measures to protect workers from heat-related illnesses such as, drinking enough fluids, scheduling rest breaks, planning for emergencies, adjusting work conditions, gradually acclimating workers, training and monitoring for signs and symptoms of heat-related illness.

The U.S. OSHA Heat Safety Tool is a free “app” on the Android and iPhone marketplace.

A sample showing the heat-indexes, risk levels and protective measures contained in this app are is below:

Heat Index	Risk Level	Protective Measures
Less than 91°F	Lower (Caution)	Basic heat safety and planning
91°F to 103°F	Moderate	Implement precautions and heighten awareness
103°F to 115°F	High	Additional precautions to protect workers
Greater than 115°F	Very High to Extreme	Triggers even more aggressive protective measures

OSHA recommends that workers who may be susceptible to heat-related illnesses drink water often, take breaks in shaded areas, report heat symptoms early, and understand what to do in emergency situations.

BIOLOGICAL HAZARDS

- Learn to recognize toxic plants, such as poison oak, poison ivy, and poison sumac.
- Wear long-sleeved shirts, sturdy trousers, and boots when working near toxic plants to minimize the potential of skin contact.
- Do not touch plants that have hairy leaves, milky sap, or thorny leaves, or fruit or seed pods.
- Do not touch infectious waste or any items suspected of being infectious waste.
- Do not approach or agitate animals, especially ones behaving strangely or foaming at the mouth.
- Use insect repellent to avoid contact with ticks, mosquitoes, and other insects (disease carriers or poisonous), as necessary. Use a solid repellent to minimize potential contamination of field samples.
- If possible, avoid contact with poisonous snakes or other reptiles by quietly and calmly walking away. If bitten, seek medical assistance immediately.
- Avoid contact with rodents as they frequently are hosts to fleas, which can carry infectious diseases.
- Avoid sweeping or stirring up enclosed, dusty areas that may contain mouse droppings. Hanta Virus is spread by contact/inhalation of infected dusts.
- Avoid encounters with stinging insects.

SECTION 25 OSHA/MOSH INSPECTION PROCESS

A large number of inspections are also the result of employee complaints. Any employee has the right to file a formal complaint when the employee believes he or she is working in an unsafe location or condition.

OSHA/MOSH will maintain his/her confidentiality, if requested, and will inform the employee of any action it takes regarding the complaint. OSHA/MOSH does not perform an onsite investigation in response to all employee complaints. Other persons can also file an informal complaint about safety at your jobsite and these too can trigger an inspection.

An inspection will also take place if a fatality occurs at the worksite. By law, employers are required to report to OSHA/MOSH, within eight hours, a work-related fatality or the hospitalization of three or more workers. To report such cases, employers can call (800) 321-

OSHA.

OSHA will also inspect any worksite if the agency receives notice or believes there is “imminent danger" to employees that could cause death or serious bodily harm. In the construction industry, unsafe excavations and trenching and workers not protected from falls are often considered "imminent danger" situations.

Finally, OSHA may also conduct a “follow-up inspection" to determine if previously cited violations have been corrected. If the compliance officer determines the employer has not corrected the hazard, the employer could be subject to increased penalties for failure to correct the unsafe condition.

Laney Companies OSHA Inspection Procedures:

1. All OSHA inspectors have the right to access any worksites where Laney Companies is providing work and or services. Laney Company foremen and supervisors will consult with the general contractor prior to allowing access to any OSHA compliance officer or inspector on to any job site. Some general contractors may have a policy on restricting access to inspectors.

2. Supervisors shall request to see credentials of the compliance officer/ inspector prior to the start of the inspection. A supervisor will be present at the opening conference prior to any inspection of our employees and / or work site.

3. The Safety Director shall be notified immediately when any representative of OSHA/MOSH requests access to our work site.

4. No work stoppages during the site inspection will be allowed by our employees or by any of our subcontractors.

5. OSHA/MOSH compliance officers / inspectors shall be escorted by the site supervisor at all times, notes will be made of all statements and actions of the compliance officers, and pictures taken should be duplicated by the escorting supervisor.

6. Any issues found on site shall be remediated immediately if possible, and the remediation documented and shown to the inspecting compliance officer prior to his/her departure.

7. A supervisor will be present at the closing conference.

8. All Laney Company employees and subcontractors will conduct themselves professionally towards the OSHA/MOSH compliance officers / inspectors. At no time will any employee or subcontractor act disrespectfully, curse, yell, or act in an inappropriate manner.

Information Regarding the OSHA/MOSH Inspection Process

The Inspection Process

OSHA/MOSH follows a general procedure when it decides to inspect a jobsite. The following outlines this procedure, along with suggestions on how to act and respond during the actual

inspection:

- **Verify the OSHA/MOSH Compliance Officer's Credentials**

When the compliance officer arrives, he or she should display official credentials. These credentials can be verified by contacting the nearest OSHA office. If the compliance officer does not offer credentials, employers should request to see them. Under no circumstance should a compliance officer collect money or promote the sale of any product at any time during the inspection. If such an instance occurs, the compliance officer is conducting OSHA business improperly or is an imposter and should be reported to the local OSHA office or the local authorities.

- **Be Polite and Respectful**

Once a compliance officer arrives on a jobsite, it is important to maintain a business-like manner. Also, make sure your superintendent or foreman and subcontractors know how to act when a compliance officer arrives if the builder or safety representative is not usually on the jobsite. The superintendent or foreman should request permission to contact the builder or safety representative, but the inspection will not be delayed indefinitely. The inspection will typically take place during normal business hours.

Employers do have the legal right to demand a search warrant before allowing OSHA to inspect a jobsite. The decision about whether to demand a warrant, however, is your decision, and is best made with advice from your legal counsel.

- **Participate in an Opening Conference**

Upon arrival, the compliance officer will ask the builder or his representative, along with all subcontractors on site or their representatives, to participate in an opening conference. The compliance officer will explain how the site was selected and explain the purpose of the visit and the scope of the inspection. Usually, contractors will be given information on how to obtain details on OSHA safety and health standards, as well as a copy of any complaint that may have been lodged.

During the opening conference, the compliance officer may also examine workplace records such as the OSHA 300 injury and illness log and the written safety and health program for the builder and each contractor.

- **Select Employer Representatives**

Before the compliance officer begins the inspection, the builder and each contractor will normally be asked to select a representative to accompany the inspector. If the job is unionized, then a union representative may also accompany the compliance officer. If the job is non-union, the compliance officer may ask to speak to employees of each contractor. An employer representative should accompany the inspector at all times during the walkaround.

- **Participate in the Walkaround**

During the walkaround, the compliance officer will observe safety and health conditions and practices; consult with employees privately, if necessary; take photos or videotape; take air and noise samples; and survey engineering controls. The scope of the walkaround is limited to the scope and purpose of the inspection.

The compliance officer will assess compliance with OSHA's construction safety standards and the General Duty Clause of the Occupational Safety and Health Act. The compliance officer will sometimes point out any unsafe or unhealthy conditions during the inspection. The compliance officer may also discuss possible corrective actions.

- **Take Notes and Pictures**

The compliance officer will take notes, pictures and/or videotape. Employers should attempt to take a matching set of photographs from the same angle as the compliance officer and take notes on what the inspector has said and also note any items that were corrected immediately. In addition, employers should take additional photos from other angles that may eventually support a defense to citations, should citations by appealed.

- **Participate in a Closing Conference**

After the walkaround is concluded, the compliance officer will conduct a closing conference with all contractors. The compliance officer will describe the alleged violations and the OSHA construction safety standards that may have been violated. At the closing conference stage, the citations are not final. Thus, compliance officers will not typically discuss proposed penalties at the closing conference. Any citations and penalties will be received later by certified mail, which could take up to six months to be issued.

During the closing conference, employers should produce any records to show compliance efforts with OSHA standards, such as a written safety program, training logs, etc. Any effort to show good faith compliance can help to reduce proposed penalties. The compliance officer will also explain the appeals process for contesting citations.

Determining Whether to Appeal a Citation

Regardless of whether you agree with the citation or not, once it is received, you must post it at or near the site of the violation for three working days or until the alleged violations have been corrected, whichever is longer.

If you decide to appeal a citation, you must notify the OSHA Area Director in writing within 15 working days after receipt of the citation. This written notification, called a Notice of Contest, must clearly state what is being contested – the citation, the penalty, the abatement date or any combination of these. The deadline for filing a Notice of Contest is not negotiable; employers must be cognizant of the 15 working day period as soon as they receive the citations.

If the Notice of Contest is properly filed, the case will be forwarded to the Occupational Safety

and Health Review Commission (OSHRC), which is a federal commission independent of OSHA. (Similar state commissions exist in states with state OSHA plans.) The OSHRC assigns the case to an administrative law judge who will hold a hearing and may uphold, modify or vacate any citation or penalty. At this stage, most employers choose to be represented by an attorney.

After receiving the citations, you can also request an “Informal Conference.” At an Informal Conference, you can discuss the citations with the OSHA Area Director or his designee, who is authorized to enter into settlement agreements that will revise citations and penalties to avoid prolonged legal disputes and to correct hazards. An Informal Conference must take place before the 15 days allowed to contest the citation has passed. If you are not satisfied with the outcome of this conference, you still have the option to Formally Contest the citation, as long as it is within the 15 working day period.

SECTION 26 SIGNS, SIGNALS & BARRICADES

Signs and symbols must be visible at all times when work is performed. Signs will be removed or covered when hazard no longer exists.

Danger Signs:

- Must be used only where an immediate hazard exists, and must be made in accordance with ANSI requirements.
- Danger signs shall have red as the predominating color for the upper panel; black outline on the borders; and a white lower panel for additional sign wording.

Caution Signs

- Caution signs must be used only to warn against potential hazards or to caution against unsafe practices.
- Caution signs shall have yellow as the predominating color; black upper panel and borders: yellow lettering of "caution" on the black panel; and the lower yellow panel for additional sign wording. Black lettering shall be used for additional wording.

Traffic Signs

- Construction areas shall be posted with legible traffic signs at points of hazard.
- Must conform to the MD MUTCD standards.
    - Manual on Uniform Traffic Control Devices

Incident Prevention Tags

- Used as a temporary means of warning employees of an existing hazard, such as defective tools, equipment, etc. They shall not be used in place of, or as a substitute for, accident prevention signs.

Traffic Flagging

- Flaggers should wear high visibility clothing with a background of fluorescent orange-red or yellow-green and retro-reflective material of orange, yellow, white, silver, or yellow-green.
- Check the label or packaging to ensure that the garments are performance ANSI class 3.
- Drivers should be warned in advance with signs that there will be a flagger ahead.
- Flaggers should use STOP/SLOW paddles, paddles with lights, or flags (flags should be used only in emergencies.)
- The STOP sign should be octagonal with a red background and white letters and border.
- The SLOW sign is the same shape, with an orange background and black letters and a border.
- Training Flaggers should be trained/certified and use the signaling methods required by the authority in charge.
- Workers on foot, equipment operators, and drivers in internal work zones need to know the routes that construction vehicles will use.
- Equipment operators and signal persons need to know the hand signals used on the worksite.
- To Stop Traffic- the flagger shall face traffic and extend the STOP sign paddle in a stationary position with the arm extended horizontally away from the body. The free arm should be raised with the palm toward approaching traffic.
- To Direct Stopped Traffic to Proceed- the flagger shall face traffic with the SLOW paddle held in a stationary position with the arm extended horizontally away from the body. The flagger should motion with the free hand for traffic to proceed.
- To Alert or Slow Traffic-The flagger shall face traffic with the SLOW sign paddle held in a stationary position with the arm extended horizontally away from the body.
    - The flagger may motion up and down with the free hand, palm down, indicating that the vehicle should slow down.
    - Must be used in accordance with MUTCD requirements.

Barricades may be used to mark any of the following conditions:

1. A roadway ends
2. A ramp or lane closed for operational purposes, or
3. The permanent or semi-permanent closure or termination of a roadway.

SECTION 27 WELDING & HOT WORK POLICY

Hot Work Policy and Permit

Hot work operations and fire prevention precautions, including permits and fire watches, shall be in accordance with NFPA 51B, Standard for Fire Prevention During Welding, Cutting, and Other Hot Work.

Fire Safety Plan Management

Laney Comany will have ultimate responsibility to manage and implement the fire safety plan and emergency evacuation procedures for the jobsite. Each individual company or contractor will be responsible for the accountability of its employees; establishing pre-designated muster points, and for training their employees.

Hot Work Procedure

The following is a comprehensive outline of Laney Company Hot Work Policy. The goal of our Hot Work Policy is to control our heat sources and ensure that they do not come in contact with combustible or flammable materials.

When objects are to be heated, other fire hazards in the nearby vicinity must be taken to a safe location.

Suitable fire extinguishing equipment must be immediately available in the work area and shall be maintained in a ready to use fashion.

WELDING

GAS WELDING

A. All gas welding equipment and connections should be kept free from grease and oil. (oxygen will explode upon contact with oil or grease). Oily and greasy gloves may bring about the same effect, besides making it difficult to handle the cylinders.

B. Never roll tanks on the floor, nor attempt to carry them by hand or hoist unless properly slung. Use the skid provided when unloading cylinders from the truck. After unloading tank, the cylinder must be securely chained.

C. Securely fasten with a chain the acetylene and oxygen tanks in an upright position where there is no danger of their falling or being bumped.

D. Use only standard green oxygen hose with right-hand couplings, together with red acetylene hose with left-hand thread.

E. Blow out the tank valve before attaching the regulator. Never use compressed air for blowing out equipment as air may contain some oil and moisture. Use oxygen to blow out the oxygen hose and acetylene to blow out the acetylene hose.

F. When changing empty tanks for full ones:

1. Shut off valve on empty tanks.
2. Release thumb screw on regulator.
3. Disconnect regulator, blow out tank valve and connect on full tank.
4. Stand on opposite side of tank, point the acetylene valve outlet away from the oxygen tank and face away from the gauge while opening the tank valve.
5. Adjust thumb screw on regulator to proper pressure, making sure that you do not have excess oxygen, which causes unnecessary sparks in operation.
6. Replace protective cap on empty tank.

G. Be sure that the end of your torch is cleaned before attempting to light. Use only friction lighters.
H. Do not put the materials in such a position as to permit sparks, hot metal, or the severed section of metal to fall on the gas supply hose or the feet of any employee.
I. At the completion of the work, the welder may make a careful inspection of the job site to insure that hot articles have not been left smoldering which might later develop into a serious fire.
J. Proper goggles and gloves shall be worn. Employee must wear steel-toe shoes.

ELECTRIC ARC WELDING

A. Whenever possible, welding operations should be carried on inside a regular welding booth. If work must be performed outside a booth, the Arc shall be effectively screened to prevent injury to eyes and others.
B. Before entering the welding area, an effective warning, such as shouting, shall be given, so that the operator may be aware of your presence and help you to avoid a sudden flash or other injury.
C. Like the welding operator, the person entering the welding area is to also wear required eye protection.
D. The welding of galvanized material requires the operator to protect himself with a specially designed airline respirator, which fits under his helmet.
E. Deposit short ends of welding rods in the containers provided for that purpose, to prevent burning holes in your shoes or starting fires.
F. When not in use, place the electric holder where it cannot cause an arc.
G. Prevent injury to yourself and others from short circuits by only using welding cables that are in good condition.
H. Only properly authorized operators shall use welding equipment. Never attempt to repair welding equipment yourself.
I. Helmets and shields will be used with all electrical welding. Do not remove your helmet while bending over a hot weld, or while chipping slag. Safety shoes must be worn.

M.T. LANEY HOT WORK PERMIT
Required for cutting, welding, grinding and open flames.

NOTE: *Hot Work will be performed only after a careful and complete review of all safety precautions and site preparation actions have proven it safe to begin work.*
Job name:_____

Supervisor in charge of hot work:_____

Requested start date:_____ Time work started:_____

Time inspection completed:_____ Time work completed:_____

Description and location of hot work being performed:_____

1. The location of the work to be done will be examined:
Were combustible materials removed from the area, covered or shielded?_____

Have all flammable dusts, vapors and liquids been cleared from the hot work area?_____

Have all unpurged tanks or equipment previously containing flammable material been removed?

Will the work be confined to the area specified in this permit?_____

Is ventilation adequate or is additional ventilation necessary?_____

Are there any flammable substances in the affected area or flame "drop zone?"_____

2. The following safeguards will be provided:

Have all floors and surroundings been swept clean and wet down if required?_____

Does Fire Watch have at least a 10# ABC Dry Chemical fire extinguisher?_____

Do smoke detectors or sensors have to be disabled?_____

Have affected individuals in the work area been notified?_____

3. If the work involves spark producing equipment the following will be done:

Are sparks directed away from people and combustibles?_____

Have all non-moveable combustibles been protected with fire blankets, curtains, etc?_____

Has a Fire Watch been designated?_____

Name of Fire Watch_____

4. Has flame- or spark- producing equipment been inspected and in good condition?___

5. Have arrangements been made to monitor the areas around and below the hot work during breaks and for at least one-half hour after completion of work?_____

Have all affected personnel been made aware of all hazards?_____

List hazards:_____

Signature of responsible person requesting Hot Work Permit:_____

Printed name of responsible person:_____

SECTION 28 HOUSEKEEPING

All walkways and stairways shall be kept clear of trash/debris and other materials such as tools and supplies to prevent tripping and the accumulation of combustible materials.

Employees will be responsible to thoroughly clean areas and spaces affected by Work. Completely remove paint, mortar, oils, putty, and items of similar nature.

Clean spillage, overspray, and heavy collection of dust in areas immediately.

Waste disposal facilities will be provided in sizes adequate to handle waste from operations.

Daily cleaning will ensure that waste materials, debris, rubbish, and debris resulting from operations are removed from site.

Cleaning also entails ensuring that:
1. Remove liquid spills promptly.
2. Where dust would impair proper execution of the work activities; broom-clean or vacuum the entire work area, as appropriate.

Potable Water – Construction sites must have a portable container for drinking potable water with a tap spout.

Single service cups to be used with sanitary container with receptacle for disposing of the used cups.

Material Storage

- Materials must be stacked to prevent falling.
- Aisles must be kept clear for movement.
- Do not store material within 6’ of any opening in the floor or within 10’ of an exterior wall that does not extend higher than the material to be stored.
- Material should not be stored on scaffolds, other then what is needed for immediate operation.

- Pipe should be racked and blocked, so as not to roll.

Disposal of Waste Material

- Any material dropped outside exterior walls shall be dropped through a covered chute.
- Remove all debris from job on a daily basis.
- All oily rags are to be kept in a fire resistant container and emptied as soon as possible.
- Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.

SECTION 29 RESPIRATORY PROTECTION PROGRAM

Respiratory Protection Program

TABLE OF CONTENTS

1. Purpose

The purpose of this program is to ensure that all Laney Company employees are protected from exposure to these respiratory hazards.

Engineering controls, such as ventilation and substitution of less toxic materials, are the first line of defense at The Laney Companies; however, engineering controls have not always been feasible for some of our operations or have not always completely controlled the identified hazards. In these situations, respirators and other protective equipment must be used. Respirators are also needed to protect employees' health during emergencies. The work processes requiring respirator use at Laney Companies are outlined in Table 1 in the Scope and Application section of this program.

In addition, some employees have expressed a desire to wear respirators during certain operations that do not require respiratory protection. As a general policy Laney Companies will review each of these requests on a case-by-case basis. If the use of respiratory protection in a

specific case will not jeopardize the health or safety of the employee(s), Laney Companies will provide respirators for voluntary use. As outlined in the Scope and Application section of this program, voluntary respirator use is subject to certain requirements of this program.

2. Scope and Application

This program applies to all employees who are required to wear respirators during normal work operations, and during some non-routine or emergency operations such as a spill of a hazardous substance. All employees working in these areas must be enrolled in the company's respiratory protection program. In addition, any employee who voluntarily wears a respirator when a respirator is not required (i.e., in certain maintenance and coating operations) is subject to the medical evaluation, cleaning, maintenance, and storage elements of this program, and must be provided with certain information specified in this section of the program.

3. Responsibilities

Program Administrator: the Program Administrator is responsible for administering the respiratory protection program. Duties of the program administrator include:

- Identifying work areas, processes or tasks that require workers to wear respirators, and evaluating hazards.
- Selection of respiratory protection options.
- Monitoring respirator use to ensure that respirators are used in accordance with their certifications.
- Arranging for and/or conducting training.
- Ensuring proper storage, cleaning, inspections, and maintenance of respiratory protection equipment.
- Conducting qualitative fit testing with Bitrex.
- Administering the medical surveillance program.
- Maintaining records required by the program.
- Evaluating the program.
- Updating written program, as needed.

Supervisors: supervisors are responsible for ensuring that the respiratory protection program is implemented in their particular areas. In addition to being knowledgeable about the program requirements for their own protection, supervisors must also ensure that the program is understood and followed by the workers under their charge. Note: Workers participating in the respiratory protection program do so at no cost to themselves.

Duties of the supervisor include:

- Ensuring that employees under their supervision (including new hires) have received appropriate training, fit testing, and annual medical evaluation.
- 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 cleaned, maintained, inspected, and stored according to the respiratory protection plan.
- Ensuring that respirators fit well and do not cause discomfort.
- Continually monitoring work areas and operations to identify respiratory hazards.
- Coordinating with the Program Administrator on how to address respiratory hazards or other concerns regarding the program.

Employees: each employee has the responsibility:

- To wear his or her respirator when and where required and in the manner in which they were trained.
- Care for and maintain their respirators as instructed, and store them in a clean, sanitary location.
- Inform their supervisor if the respirator no longer fits well, and request a new one that fits properly.
- Inform their supervisor or the Program Administrator of any respiratory hazards that they feel are not adequately addressed in the workplace and of any other concerns that they have regarding the program.
- Inform their supervisor of need for a medical reevaluation.

4. Program Elements

Selection Procedures – The Program Administrator:

- Will select respirators to be used on site, based on the hazards to which workers are exposed and in accord with all applicable OSHA standards.
- Will conduct a hazard evaluation for each operation, process, or work area where airborne contaminants may be present in routine operations or during an emergency.
- Monitoring can be contracted out.
- The hazard evaluation will include:
    - Identification and development of a list of hazardous substances used in the workplace, by department or work process.
    - Review of work processes to determine where potential exposures to these hazardous substances may occur. This review is to be conducted by surveying the workplace, reviewing process records, and talking with employees and supervisors.
    - Exposure monitoring to quantify potential hazardous exposures.
    - If worker exposures have not been, or cannot be, evaluated they must be considered IDLH.
    - Respirators are selected based on the workplace hazards evaluated, and workplace and user factors affecting respirator performance and reliability.
- Respirators are selected based on the Assigned Protection Factors (APFs) and calculated Maximum Use Concentrations (MUCs).

- A sufficient number of respirator sizes and models must be provided to the employee during fit testing to identify the acceptable respirator that correctly fits the users.

For Non-IDLH atmospheres, respirators are:

- Selected as appropriate for the APFs and MUCs.
- Selected as appropriate for the chemical nature and physical form of the contaminant.
- Equipped with end-of-service-life indicators (ESLIs) if the respirators (APRs) are used for protection against gases and vapors. If there is no ESLI, then a change schedule must be implemented.
- Equipped with NIOSH-certified HEPA filters (or other filters certified by NIOSH for particulates under 42 CFR part 84) if the respirators (APRs) are to be used for protection against particulates.

Exposures are minimized by the use of ventilation, and employees generally enter the spray area for short time periods. Accordingly, employees may voluntarily choose to wear a half facepiece APR with organic vapor cartridges when working in this area.

Medical Evaluation: Employees who are either required to wear respirators, or who choose to wear an APR voluntarily, must pass a medical exam before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators until a PLHCP has determined that they are medically able to do so. Any employee refusing the medical evaluation will not be allowed to work in an area requiring respirator use.
Medical evaluation procedures are as follows:

- The medical evaluation will be conducted using the questionnaire provided in Appendix C of the Respiratory Protection standard.
- 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.
- Be granted follow-up medical exams as required by the Respiratory Protection standard, and/or as deemed necessary by the PLHCP.
- Be granted the opportunity to speak with the physician about their medical evaluation, if they so request.

Fit Testing:

- Fit testing is required for employees wearing half facepiece APRs for exposures.
- Employees voluntarily wearing half facepiece APRs may also be fit tested upon request.
- Employees who are required to wear half facepiece APRs will be fit tested:
    - Prior to being allowed to wear any respirator with a tight fitting facepiece.
    - Annually.
    - When there are changes in the employee's physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, etc.).
    - Employees will be fit tested with the make, model, and size of respirator that they will actually wear.
    - Employees will be provided with several models and sizes of respirators so that they may find an optimal fit.
    - Fit testing of PAPRs is to be conducted in the negative pressure mode. The Program Administrator will conduct fit tests following the OSHA approved Bitrex Solution Aerosol QLFT Protocol in Appendix A of the Respiratory Protection standard. The Program Administrator has determined that QNFT is not required for the respirators used under current conditions at M.T. Laney. If conditions affecting respirator use change, the Program Administrator will evaluate on a case-by-case basis whether QNFT is required.

Respirator Use - Responsibilities for Employees are that they:

- Will use their respirators under conditions specified by this program, and in accord with the training they receive on the use of each particular model. In addition, the respirator must not be used in a manner for which it is not certified by NIOSH or by its manufacturer.
- Must conduct user seal checks each time that they wear their respirator.
- Must use either the positive or negative pressure check (depending on which test works best for them) specified in Appendix B-1 of the Respiratory
- Protection standard.
- Must leave the work area to go to the locker room to maintain their respirator for the following reasons:
    - to clean their respirator if the respirator is impeding their ability to work;
    - to change filters or cartridges, or replace parts; or
    - to inspect the respirator if it stops functioning as intended.
    - Should notify their supervisor before leaving the area.
    - Not wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures, that prevents them from achieving a good seal.
    - Not wear headphones, jewelry, or other articles that may interfere with the facepiece-to-face seal.

Respirator Malfunction

1. APR Respirator Malfunction:
For any malfunction of an APR (e.g., breakthrough, facepiece leakage, or improperly working valve), the respirator wearer must inform his or her supervisor that the respirator no longer functions, and go to the designated safe area to maintain the respirator. The supervisor must ensure that the employee receives the needed parts to repair the respirator, or is provided with a new respirator.

Cleaning, Maintenance and Change Schedules and Storage Cleaning

- Respirators are to be regularly cleaned and disinfected at the designated respirator cleaning station located in the employee locker room.
- Respirators issued for the exclusive use of a employee are to be cleaned as often as necessary, but at least once a day for workers.
- The following procedure is to be used when cleaning and disinfecting respirators:
    - Disassemble respirator, removing any filters, canisters, or cartridges.
    - Wash the facepiece and associated parts in a mild detergent with warm water. Do not use organic solvents.
    - Rinse completely in clean warm water.
    - Wipe the respirator with disinfectant wipes (70% Isopropyl Alcohol) to kill germs.
    - Air dry in a clean area.
    - Reassemble the respirator and replace any defective parts.
    - Place in a clean, dry plastic bag or other airtight container.

Note: The Program Administrator will ensure an adequate supply of appropriate cleaning and disinfection material at the cleaning station. If supplies are low, employees should contact their supervisor, who will inform the Program Administrator.

Maintenance:
Respirators are to be properly maintained at all times to ensure that they function properly and adequately protect the employee. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use.

No components will be replaced or repairs made beyond those recommended by the manufacturer.

The following checklist will be used when inspecting respirators:

Facepiece:
- cracks, tears, or holes
- facemask distortion
- cracked or loose lenses/faceshield

Valves:
- Residue or dirt

- Cracks or tears in valve material
- Headstraps:
- breaks or tears
- broken buckles

Filters/Cartridges:

- approval designation
- gaskets
- cracks or dents in housing
- proper cartridge for hazard

Change Schedules

Employees wearing APRs or PAPRs with P100 filters for protection against wood dust and other particulates need to change the cartridges on their respirators when they first begin to experience difficulty breathing (i.e., resistance) while wearing their masks.

Storage

- Respirators must be stored in a clean, dry area, and in accord with the manufacturer's recommendations.
- Each employee will clean and inspect their own airpurifying respirator in accord with the provisions of this program, and will store their respirator in a plastic bag in their own locker.
- Each employee will have his/her name on the bag, and that bag will only be used to store that employee's respirator.

Defective Respirators

- Respirators that are defective or have defective parts must be taken out of service immediately.
- If, during an inspection, an employee discovers a defect in a respirator, he/she is to bring the defect to the attention of his or her supervisor.
- Supervisors will give all defective respirators to the Program Administrator.

The Program Administrator will decide whether to:

- Temporarily take the respirator out of service until it can be repaired.
- Perform a simple fix on the spot such as replacing a headstrap.
- Dispose of the respirator due to an irreparable problem or defect.

- When a respirator is taken out of service, the respirator will be tagged out of service, and the employee will be given a replacement of the same make, model and size.
- If the employee is not given a replacement of the same make, model and size, then the employee must be fit tested.

Training

The Program Administrator will provide training to respirator users and their supervisors on the contents of the Laney Company Respiratory Protection Program and their responsibilities under it, and on the OSHA Respiratory Protection standard.

- Workers will be trained prior to using a respirator in the workplace.
- The training must be comprehensive, understandable and recur annually, and more often if necessary.

- As with any employee, supervisors must be trained prior to using a respirator in the workplace; they also should be trained prior to supervising workers who must wear respirators if the supervisors themselves do not use a respirator.
- Supervisors will provide the basic information on respirators in Appendix D of the Respiratory Protection standard to employees who wear respirators when not required by the employer to do so.
- Supervisors will ensure that each employee can demonstrate knowledge of at least the following:
    - Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator;
    - What the limitations and capabilities of the respirator are;
    - How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
    - How to inspect, put on and remove, use, and check the seals of the respirator;
    - What the procedures are for maintenance and storage of the respirator;
    - How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and
    - The general requirements of the Respiratory Protection standard.
- Supervisors will ensure that employees will be retrained annually or as needed (e.g., if they change departments and need to use a different respirator).
- An employer who is able to demonstrate that a new employee has received training within the last 12 months that addresses the elements specified in paragraph (k)(1)(i) through (vii) is not required to repeat such training provided that, as required by paragraph (k)(1), the employee can demonstrate knowledge of those element(s).

5. Program Evaluation
The Program Administrator will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented.

The evaluations will include regular consultations with employees who use respirators and their supervisors, site inspections, air monitoring and a review of records.

Problems identified will be noted in an inspection log and corrected by the Program Administrator.

These findings will be reported to Laney Company management, and the report will list plans to correct deficiencies in the respirator program and target dates for implementing those corrections.

6. Documentation and Recordkeeping
A written copy of this program and the OSHA standard is kept in the Program Administrator's office and is available to all employees who wish to review it.

Also maintained in the Program Administrator's office are copies of training materials.
Copies of fit test records (see (m)(2) of the standard). These records will be updated as new fit tests are conducted. These records will be updated as new employees
are trained and as existing employees receive refresher training.

The Program Administrator will also maintain copies of the records for all employees covered under the respirator program (except medical records).

The completed medical questionnaire and the PLHCP's documented findings are confidential. The company will only retain the physician’s written recommendation regarding each employee’s ability to wear a respirator.

SECTION 30 HEARING CONSERVATION PROGRAM

All activities performed by Laney Companies for Washington Gas will fall under the OSHA 1926 Construction Regulations, therefore the Hearing Conservation Program likewise follows the standards promulgated in 29 CFR 1926.101 Hearing Protection and 29 CFR 1926.52 Occupational Noise Exposure.

Training will cover the effects of noise on hearing, the purpose of hearing protectors, the advantages, disadvantages, selection, fitting and use. Additionally, training will cover the purpose of audiometric testing and an explanation of the test procedures.

All affected employees will be responsible for wearing the appropriate personal protective equipment with the proper noise reduction rating to protect against noise hazards in the workplace.

The Laney Companies will provide personal protective equipment to protect against noise hazards in the workplace.

For most tasks, disposable ear plugs may be used to protect against noise hazards.

Use the following steps for properly inserting foam ear plugs:

1. Ensure your hands and ear plugs are clean.
2. Roll ear plug between thumb and index finger.
3. If inserting into right ear (lift top of ear with left hand while holding plug in right hand).
4. Insert and hold into ear allowing the foam to expand to fit your ear canal.
5. Follow the same steps for opposite ear and reverse step 4.

Dispose after each use or if plugs become dirty.

Workers must use hearing protection (i.e., earmuffs or earplugs) when exposed to hazardous levels of sound from tools or heavy equipment.

If hearing protection is required on jobsite, a written hearing-protection program will be implemented.

When occupational noise levels exceed those permissible levels found in OSHA’s Table D-2 - Permissible Noise Exposures (below), Laney Companies will attempt to reduce the level of noise

by implementing engineering and administrative controls. Should these prove infeasible or would create a greater hazard, workers will be required to wear hearing protection with proper noise reduction rating (NRR). Depending on the level of noise exposure, workers may have to utilize a combination of controls.

TABLE D-2 - PERMISSIBLE NOISE EXPOSURES

Duration per day/hours	Sound level dBA
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

Anytime noise levels are above 90 dBA, workers must don and properly wear ear plugs or muffs. Workers will be trained in the proper selection and use of these hearing protective devices. When noise levels are above 100 dBA, workers will be required to wear both ear plugs and ear muffs.

Workers should consult a competent person to understand whether they need to wear hearing protection onsite.

Plain cotton is not an acceptable hearing protection device.

SECTION 31 DEMOLITION OPERATIONS

Preparatory Operations:

75% of all OSHA demolition citations are for failure to comply with mandatory site preparation. Additionally, 50% of all site preparation citations are for failure to have an engineering survey completed prior to start of demolition. Therefore, and pursuant to OSHA regulations, prior to the start of demolition operations, an engineering survey will be completed by a competent person. The engineering survey of the structure will determine the condition of:

- The Framing
- Floors and Walls
- Possibility of unplanned collapse of any portion of the structure
- Any adjacent structure where employees may be exposed shall also be similarly checked.

Laney Companies will have evidence, in writing, verifying that such a survey has been performed.

When employees are required to work within a structure to be demolished which has been damaged by fire, flood, explosion, or other cause, the walls or floor will be shored or braced.

All electric, gas, water, steam, sewer, and other service lines shall be shut off, capped, or otherwise controlled, outside the building line before demolition work is started.

- In each case, any utility company which is involved shall be notified in advance.

If it is necessary to maintain any power, water or other utilities during demolition, such lines shall be temporarily relocated, as necessary, and protected.

Laney Companies will determine if any type of hazardous chemicals, gases, explosives, flammable materials have been used in any pipes, tanks, or other equipment on the property.

- When the presence of any such substances is apparent or suspected, testing and purging must be performed and the hazard eliminated before demolition is started.

Where a hazard exists from fragmentation of glass, such hazards shall be removed.

Fall Protection –

- Where a hazard exists to employees falling through wall openings, the opening shall be protected to a height of approximately 42 inches.
- All floor openings, not used as material drops, shall be covered over with material substantial enough to support the weight of any load which may be imposed.
- Secure hole covers to prevent its accidental movement.

Controlled Access Zone (CAZ) –

- When debris is dropped through holes in the floor the drop area must be completely enclosed with barricades not less than 42 inches high and not less than 6 feet back from the projected edge of the opening above.
- Signs, warning of the hazard of falling materials, shall be posted at each level.
- Removal shall not be permitted in this lower area until debris handling ceases above.

Employee entrances to multi-story structures being demolished shall be completely protected by sidewalk sheds providing protection from the face of the building for a minimum of 8 feet.

- All such canopies shall be at least 2 feet wider than the building entrances or openings.

Commencing Demolition
Demolition of exterior walls and floor construction shall begin at the top of the structure and proceed downward.

- Exceptions: for the cutting of holes in floors for chutes, holes through which to drop materials, preparation of storage space, and similar necessary preparatory work.

Stairs, Passageways and Ladders

- Only those stairways, passageways, and ladders, designated as means of access to the structure of a building, shall be used.
- Other access ways shall be entirely closed at all times.
- Means of access must be periodically inspected and maintained in a clean and safe condition.

Chutes

- No material shall be dropped to any point lying outside the exterior walls of the structure unless the area is effectively protected.
- All materials chutes at an angle of more than 45 deg. must be entirely enclosed.
- The openings shall not exceed 48 inches in height measured along the wall of the chute.
- At all stories below the top floor, such openings shall be kept closed when not in use.
- When operations are not in progress, the area surrounding the discharge end of a chute shall be securely closed off.
- Any chute opening, into which workmen dump debris, shall be protected by a guardrail.
- Any space between the chute and the edge of openings in the floors through which it passes shall be solidly covered over.
- Where the material is dumped from mechanical equipment or wheelbarrows, a securely attached toeboard or bumper, not less than 4 inches thick and 6 inches high, shall be provided at each chute opening.

Removal of Walls or Masonry Sections

- No wall section more than one story in height, shall be permitted to stand alone without bracing.
- All walls shall be left in a stable condition at the end of each shift.

- Structural or load-supporting members on any floor shall not be cut or removed until all stories above such a floor have been demolished and removed.
- Floor openings within 10 feet of any wall being demolished shall be planked solid, except when employees are kept out of the area below.
- Walkways or ladders shall be provided to enable employees to safely reach or leave any scaffold or wall.

Manual Removal of Floors

- Openings cut in a floor shall extend the full span of the arch between supports.

- Stringers of ample strength shall be installed to support the flooring planks, and the ends of such stringers shall be supported by floor beams or girders, and not by floor arches alone.
- Planks shall be laid together over solid bearings with the ends overlapping at least 1 foot.
- When floor arches are being removed, employees shall not be allowed in the area directly underneath, and such an area shall be barricaded to prevent access to it.
- Demolition of floor arches shall not be started until they, and the surrounding floor area for a distance of 20 feet, have been cleared of debris and any other unnecessary materials.

Equipment Removal of Walls, Floors and Material

Mechanical equipment shall not be used on floors or working surfaces unless such floors or surfaces are of sufficient strength to support the imposed load.

- Floor openings shall have curbs or stop-logs to prevent equipment from running over the edge.

Storage

- The storage of waste material and debris on any floor shall not exceed the allowable floor loads.
- In buildings having wooden floor construction, the flooring boards may be removed from not more than one floor above grade to provide storage space for debris, provided falling material is not permitted to endanger the stability of the structure.
- When wood floor beams serve to brace interior walls or free-standing exterior walls, such beams shall be left in place until other equivalent support can be installed to replace them.
- Storage space into which material is dumped shall be blocked off, except for openings necessary for the removal of material.
    - Such openings shall be kept closed at all times when material is not being removed.

Removal of Steel Construction

- Steel construction shall be dismantled column length by column length, and tier by tier (columns may be in two-story lengths).
- Any structural member being dismembered shall not be overstressed.

Mechanical Demolition

- No workers shall be permitted in any area, which can be adversely affected by demolition operations, when balling or clamming is being performed.
- Only those workers necessary for the performance of the operations shall be permitted in this area at any other time.
- The weight of the demolition ball shall not exceed 50 percent of the crane's rated load.
- The crane boom and loadline shall be as short as possible.
- During demolition, continuing inspections by a competent person shall be made as the work progresses to detect ongoing hazards.

- No employee shall be permitted to work where such hazards exist until they are corrected by shoring, bracing, or other effective means.

SECTION 32 ASPHALT OPERATIONS

Asphalt is a dark brown or black substance derived from crude oil. It may be a solid, a semi-solid, or a liquid. Other names for asphalt include road tar, road binder, mineral pitch, petroleum pitch, petroleum asphalt, and seal-coating material.

Asphalt is often mistakenly confused with “tar,” “coal tar,” or “pitch” because the appearance is similar and the substances may be used interchangeably in many industrial processes. Tar and pitch are derived from coal products that are chemically and physically different. There are two main types of asphalt: straight-run asphalt or asphalt cement and air-blown or oxidized asphalt. Straight-run asphalt is used for paving roads, airport runways, and parking lots. Because of its solid to semi-solid nature, it must first be “cut” with a solvent to bring it to a more liquid state; this is known as cut-back asphalt.

Highway workers are most likely to use straight-run asphalt. Air-blown asphalt has a high softening point and is used primarily in roofing, pipe covering, and similar situations. Health effects from exposure to asphalt fumes can include headache, skin rash, sensitization, fatigue, reduced appetite, throat and eye irritation, cough, and skin cancer. There are currently no specific Occupational Safety and Health Administration (OSHA) standards or directives for asphalt fumes. However, exposures to various chemical components of asphalt fumes are addressed in specific standards for general industry, such as the use of personal protective equipment (PPE).

Asphalt products are often stored and handled at elevated temperatures, fire prevention is extremely important. One of the greatest hazards in handling hot asphalt is exposure to a source of ignition. Sparks, electricity, open flames, incandescent material (lighted cigarette), or other possible ignition sources should be prohibited or otherwise strictly controlled in the vicinity of asphalt operations.

OSHA requires employers to use personal protective equipment (PPE) to reduce employee exposure to hazards when engineering and administrative controls are not feasible or effective. Employers are required to determine all exposures to hazards in their workplace and determine if PPE should be used to protect their workers. If PPE is to be used to reduce the exposure of employees to hazards, according to 29 Code of Federal Regulations (CFR) 1910.132, a written PPE program must be developed and maintained.

This program should contain identification and evaluation of hazards in the workplace and if use of PPE is an appropriate control measure; if PPE is to be used, how it is selected, maintained, and its use evaluated; training of employees using the PPE; and vigilance of the program to determine its effectiveness in preventing employee injury or illness.

PPE is necessary to protect workers from asphalt burns and irritation. In addition, many of the solvents used to cut asphalt can be absorbed through unprotected skin into the bloodstream, where they can travel throughout the body and cause damage to many different organs.

PPE recommended when handling heated asphalt:

- Safety glasses or chemical goggles and 8 inches minimum sized face shield.
- Loose clothing in good condition with collars closed and cuffs buttoned at the wrist.
- Thermally insulated gloves with gauntlets that extend up the arm and worn loosely so that they can easily be flipped off if covered with hot asphalt.
- Boots with tops at least 6 inches high and laced without openings.
- Pants without cuffs which extend over the tops of the boots.
- Safety shoes at least 3 inches high and laced.
- Long handled sprayers with flexible hoses should be used when emulsified asphalts are applied by hand for tack coats, or when cut-back asphalts are applied by hand for prime coats.

First Aid
Whenever a person is injured from exposure to asphalt fumes, cold asphalt, or hot asphalt, obtain first aid/medical attention immediately. To prevent the possibility of future medical complications, have the victim examined by a physician even if the injury does not appear to be serious.

Asphalt Fumes
- Move victim to fresh air.
- Administer oxygen if breathing is difficult.
- Start artificial respiration if breathing stops.
- Have victim examined by a physician if conditions warrant.

Cold Asphalt
- Remove cold asphalt from skin with waterless hand cleaner or warm mineral oil 110 °F can also be used.
- Wash skin thoroughly with soap and water.
- Remove contaminated clothing and shower victim at once.
- Flush out contaminants from eyes for at least 5 minutes with water, lifting upper and lower eyelids occasionally.
- Have victim examined by a physician if conditions warrant.

Hot Asphalt
- Apply cold water or ice pack to asphalt skin burns.
- If burns cover more than 10 percent of body (about equal to surface of one arm or one half a leg) apply lukewarm water, or warmer if needed to alleviate pain, but heat in the asphalt must be removed as rapidly as possible.
- Do not remove asphalt from skin.
- Do not bandage burn.

- Have victim examined by a physician.

All workers who can be exposed to asphalt fumes should be trained about hazards and safe work procedures. This training should include specific information about the solvents used in mixing the asphalt.

Engineering Controls

Substitution- The best method of controlling exposure to asphalt fumes and solvent vapors is to substitute a safer asphalt mix. If explosion hazards are a problem in a paving operation, MC-250 may be substituted for RC-250. The flashpoint of the mix is nearly doubled, which means that the mix is less likely to ignite. If the toxicity of the chemical is a problem, the employer may be able to order an asphalt mixture which contains a less toxic solvent (for example, using toluene instead of benzene).

Enclosure- Enclosing the process where the asphalt is used is not possible in road paving and roofing operations. It may, however, be possible for smaller operations such as pipe covering processes. Mechanization and Automation Certain parts of asphalt processes may be mechanized. For example, stirring asphalt in a tar kettle exposes the worker to asphalt fumes, solvent vapors, and potentially severe burns; mechanical devices can accomplish this task without exposing the employee to such risks. Local

Exhaust Ventilation- Local exhaust ventilation may be an effective way to control worker exposure to fumes and vapors, particularly in areas where enclosure of the operation is impossible.

General Dilution Ventilation- General dilution ventilation involves flooding a work area with uncontaminated air in an attempt to remove contaminants from the worker's breathing zone. The use of fans and blowers set up for this purpose, however, is often not adequate to remove the contaminants. This is generally not the most effective way of removing contaminants from the worker's breathing zone, but may be used to supplement local exhaust ventilation.

Respiratory Protection- While engineering controls are the preferred method for controlling worker exposure to fumes and vapors, respirators should be worn where this is not possible. In selecting the proper respirator, it is important to know all of the hazards to which workers may be exposed. A NIOSH-approved dust respirator will control exposure to asphalt fumes, but will do nothing to protect the worker against exposure to the toxic vapors given off by the solvent in the mix. In situations where vapors are concerned, the minimum requirement would be for a full-face mask respirator with organic vapor and particulate cartridges. Because of the possibility of eye irritation a half-face mask respirator would be inadequate.

Asphalt Safety Tips

- When working with any asphaltic material, avoid prolonged contact of the material with skin.
- Excessive breathing of asphalt materials should be avoided.
- Wear PPE (heavy work gloves, old clothing, protective shoe, etc.) to protect against asphalt spatters. • When chipping or chiseling old blacktop, wear eye protection. Also,

don’t chisel with a carpenter’s hammer, because it isn’t designed for this type of job and may chip; use a hand-drilling hammer or machinist’s hammer.

- Keep all asphalt materials away from high heat. Keep solvent-thinned materials away from open flames.
- Close containers after each use.
- Always follow the manufacturer’s instructions for the product being used. Remember to practice safety, don’t learn it by accident.

SECTION 33 SILICA EXPOSURE CONTROL PLAN

M. T. Laney Company, Inc will follow the silica controls noted in Table 1.

Table 1 requires the use of water and Hepa vacuum systems and/or respirators to maintain exposure will remain below 25 micrograms per cubic meter of air (25 µg/m^3) as an 8-hour time-weighted average (TWA) under any foreseeable conditions.

The Laney Companies will use engineering controls to the extent possible and use the appropriate respirators if needed to adhere fully and completely to the safe work practices noted in Table 1.

The Laney Companies will review the safe worker practices periodically to ensure the plans effectiveness in preventing all Laney Company employees from being over exposed to airborne respirable crystalline silica

The competent person/persons (Foremen) will implement safe work procedures for activities with the potential to create a silica exposure hazards not found on table 1.

Examples:

Receiving a load of stone with potential silica dust will be controlled using water sprayed on the stone before and during the unloading process. (TRC & Field Operation)

Using powder actuated tools employees will use face shields and eye protection at all times.

Designate a competent person to implement the written exposure control plan. • Restrict housekeeping practices that expose workers to silica where feasible alternatives are available.

The use of dry sweeping , leaf blowers and compressed air etc are prohibited.

Wet sweeping and the use of sweeping compounds is required to control silica dust.

The Laney Companies will designate a competent person or persons for each project to address any site specific silica hazards.

Print Name **Sign Name** **Project Name** **Date:___/___/___**

_____

_____

_____

_____

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§1926.1153 Respirable crystalline silica.

(a) Scope and application. 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/m^3) as an 8-hour time-weighted average (TWA) under any foreseeable conditions.

(b) Definitions. For the purposes of this section the following definitions apply:

Action level means a concentration of airborne respirable crystalline silica of 25 μg/m^3, calculated as an 8-hour TWA.

Competent person means an individual who is capable of identifying 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 mono-dispersed particles of 0.3 micrometers in diameter.

(c) Specified exposure control methods. (1) For each employee engaged in a task identified on *Table 1, the employer shall fully and properly implement the engineering controls, work practices, and respiratory protection specified for the task on Table 1, unless the employer assesses and limits the exposure of the employee to respirable crystalline silica in accordance with paragraph (d) of this section.*

(2) When implementing the control measures specified in Table 1, each employer shall:

(i) For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust;

(ii) For tasks performed using wet methods, apply water at flow rates sufficient to minimize release of visible dust;

(iii) For measures implemented that include an enclosed cab or booth, ensure that the enclosed cab or booth:

(A) Is maintained as free as practicable from settled dust;

(B) Has door seals and closing mechanisms that work properly;

(C) Has gaskets and seals that are in good condition and working properly;

(D) Is under positive pressure maintained through continuous delivery of fresh air;

(E) 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

(F) Has heating and cooling capabilities.

(3) Where an employee performs more than one task on Table 1 during the course of a shift, and the total duration of all tasks combined is more than four hours, the required respiratory protection for each task is the respiratory protection specified for more than four hours per shift. If the total duration of all tasks on Table 1 combined is less than four hours, the required respiratory protection for each task is the respiratory protection specified for less than four hours per shift.

(d) 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:*

(1) Permissible exposure limit (PEL). The employer shall ensure that no employee is exposed to an airborne concentration of respirable crystalline silica in excess of 50 μg/m^3, calculated as an 8-hour TWA.

(e) **Medical surveillance**—(1) General. (i) The employer shall make medical surveillance *available at no cost to the employee, and at a reasonable time and place, for each employee who will be required under this section to use a respirator for 30 or more days per year.*

(ii) The employer shall ensure that all medical examinations and procedures required by this section are performed by a PLHCP as defined in paragraph (b) of this section.

(2) Initial examination. The employer shall make available an initial (baseline) medical *examination within 30 days after initial assignment, unless the employee has received a medical examination that meets the requirements of this section within the last three years. The examination shall consist of:*

(i) A medical and work history, with emphasis on: past, present, and anticipated exposure to respirable crystalline silica, dust, and other agents affecting the respiratory system;

(3) Respiratory protection program. Where respirator use is required by this section, the

employer shall institute a respiratory protection program in accordance with 29 CFR 1910.134

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(i) Stationary masonry saws	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(ii) Handheld power saws (any blade diameter)	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. – When used outdoors. – When used indoors or in an enclosed area.	None APF 10	APF 10 APF 10
(iii) Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less)	For tasks performed outdoors only: Use saw equipped with commercially available dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency.	None	None

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA			
Equipment / Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours /shift	**> 4 hours /shift**
(iv) Walk-behind saws	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. – When used outdoors. – When used indoors or in an enclosed area.	None APF 10	None APF 10
(v) Drivable saws	For tasks performed outdoors only: Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(vi) Rig-mounted core saws or drills	Use tool equipped with integrated water delivery system that supplies water to cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA			
Equipment / Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours /shift	**> 4 hours /shift**
(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills)	Use drill equipped with commercially available shroud or cowling with dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes.	None	None
(viii) Dowel drilling rigs for concrete	For tasks performed outdoors only: Use shroud around drill bit with a dust collection system. Dust collector must have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes.	APF 10	APF 10

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA			
Equipment / Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours /shift	**> 4 hours /shift**
(ix) Vehicle-mounted drilling rigs for rock and concrete	Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector. OR Operate from within an enclosed cab and use water for dust suppression on drill bit.	None None	None None

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA			
Equipment / Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours /shift	**> 4 hours /shift**
(x) Jackhammers and handheld powered chipping tools	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.		
	– When used outdoors.	None	APF 10
	– When used indoors or in an enclosed area.	APF 10	APF 10
	OR Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.		
	– When used outdoors.	None	APF 10
	– When used indoors or in an enclosed area.	APF 10	APF 10

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA			
Equipment / Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours /shift	**> 4 hours /shift**
(xi) Handheld grinders for mortar removal (i.e., tuckpointing)	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	APF 10	APF 25
(xii) Handheld grinders for uses other than mortar removal	For tasks performed outdoors only: Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. OR	None	None

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA			
Equipment / Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours /shift	**> 4 hours /shift**
	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. – When used outdoors. – When used indoors or in an enclosed area.	None	None APF 10

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA			
Equipment / Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours /shift	**> 4 hours /shift**
(xiii) Walk-behind milling machines and floor grinders	Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. OR	None	None
	Use machine equipped with dust collection system recommended by the manufacturer. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.	None	None

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA			
Equipment / Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours /shift	**> 4 hours /shift**
(xiv) Small drivable milling machines (less than half-lane)	Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None	None

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA			
Equipment / Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours /shift	**> 4 hours /shift**
(xv) Large drivable milling machines (half-lane and larger)	For cuts of any depth on asphalt only: Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. For cuts of four inches in depth or less on any substrate: Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. OR Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None None None	None None None

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA			
Equipment / Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours /shift	**> 4 hours /shift**
(xvi) Crushing machines	Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points). Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.	None	None
(xvii) Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	Operate equipment from within an enclosed cab. When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.	None None	None None

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS
WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(xviii) Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: demolishing, abrading, or fracturing silica-containing materials	Apply water and/or dust suppressants as necessary to minimize dust emissions. OR When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None None	None None