Safety & Health Plan

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Revised November 2022

Mission Statement

Aetna Bridge Company is committed to providing the highest levels of customer service and quality construction to its clients, ensuring a safe and secure place to work, creating partnerships with its subcontractors and vendors to improve quality and lower costs, and maintaining the highest levels of integrity, professionalism, and ethics.

Aetna Bridge Company is an Equal Opportunity/Affirmative Action Employer.

Declaration of Company Safety and Health Plan

Aetna Bridge Company is committed to providing a safe and accident-free work environment while maintaining the highest levels of integrity, quality, professionalism, and ethics. Aetna Bridge Company will comply with all applicable local, state, and federal safety laws. The information in this manual describes the procedures and responsibilities of all employees and subcontractors for reducing the risk of accidents, personal injury, and property damage. The safety of all employees, company operations, and the public is paramount. In all cases, safety will take precedence over expediency. The provisions in this manual will be periodically evaluated and updated to ensure compliance with safe work practices.

The safety standards in this manual have been developed to prevent accidents, injuries and create an environment free from safety hazards that could potentially cause or likely cause death or injury to employees and our subcontractors. We employ a full-time Safety Director to help us address any hazards as well as to help us reduce any foreseeable ones. The Safety Director is available to all employees for support to maintain a safe work environment. It is not feasible to anticipate every worksite hazard; however, this manual serves as a tool to educate all employees and subcontractors of their expected conduct in order to prevent accidents. Employees and subcontractors are obligated to be knowledgeable and abide by the safety standards at all times. They shall place themselves in as safe and secure a position as possible and shall guard against any possible hazards. They should not rely on the care exercised by others nor should they trust safety devices alone. A safety conscious person thinks for himself/herself and those around them.

All reasonable efforts will be made to reduce the possibility of an accident. A safe work site can be attained through individual training, routine hazard recognition and correction; mandatory attendance at weekly "toolbox" safety meetings are just some of the ways we work to improve safety here at Aetna Bridge. All Aetna Bridge employees are required to perform hazard recognition throughout routine work practices and conditions. If elimination or correction of the hazard can be performed, each employee is responsible for implementation immediately upon discovery. At a minimum, all workforce members are empowered to make the appropriate correction action and notify management of any hazardous conditions they see or can foresee.

Each employee is required to report immediately to his/her foreperson, supervisor, or job superintendent and the Safety Director all unsafe conditions or acts he/she observes on the job. In the event of an accident that involves bodily injury or property damage, the Safety Director should be immediately notified, no longer than 2 hours after the incident/accident. All incidents will be thoroughly investigated by the Safety Director and anyone involved to determine if an unsafe act or condition contributed to the accident, and to discover the root cause to avoid it from repeating.

Safety starts with you. Each employee is responsible for their own safety - each employee is orientated upon hire to support our goal of safety first.

We expect everyone, including subcontractors, to support and abide by these safety policies. Violators of the program will face corrective disciplinary action ranging from warnings up to and including dismissal from employment. Let's work together to continue to make our work environment a safe one.

Chip Mainelli, President

Joan Zapatka, Safety Director

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Environmental Policy

Aetna Bridge Company continually works to train and educate our employees to promote a culture of minimizing our environmental impact, water quality, habitat conservation and wildlife interactions. We are committed to managing environmental performance in order to reduce the impact of our business on the natural environment and community. We aspire to work with all employees and contractors to ensure their own work, so far as is reasonably practicable, is carried out with minimum risk to the environment.

This includes but is not limited to:

- Ensure compliance with all relevant environmental legislation, codes and requirements specified by our clients;
- Assess the environmental impact of our operations during planning, designing and implementation of operations to help prevent pollution of the external environment;
- Strive to work with our supply chain to obtain sustainable timber products;
- Work within our company to minimize the amount of construction, demolition and excavation waste going to landfills;
- Conserve use of energy, by reduction of emissions and discharges;
- Practice reducing waste, recycling more, and increasing the use of recycled and recovered materials;
- Education of our employees according to their role and responsibilities.

All employees and contractors are expected to cooperate with this Environmental Policy.

Protection of the Public

All necessary precautions shall be taken to prevent injury to any person or damage to the property of others. Precautions to be taken shall include, but should in no way be limited to, the following:

- Work shall not be performed in any area occupied by the public unless specifically permitted by the contract.
- When it is necessary to maintain public use of work areas involving sidewalks, entrances to buildings, lobbies, corridors, aisles, stairways and vehicular roadways, the appropriate guardrails, barricades, temporary fences, overhead protection, partitions, and shields shall be employed.
- Appropriate warnings and instructional safety signs shall be conspicuously posted where and when required and/or necessary. In addition, a signal person shall control the movement of motorized equipment in areas of potential public endangerment.
- All public access areas must remain clear of obstructions in order to allow for the safe entrance and exit of the public at all times.
- Sidewalk sheds, canopies, catch platforms and appropriate fences shall be utilized when necessary to maintain public pedestrian traffic adjacent to the erection, demolition, or structural alteration of outside walls of any structure. Protective devices must always be in accordance with all federal, state, and local ordinances or regulations.
- A temporary fence shall be erected around perimeters of all above-ground operations that are adjacent to public areas. Local, state ordinances and all applicable regulations shall be adhered to.
- Guardrails shall be used on both sides of vehicular and pedestrian bridges, ramps, runways, and platforms. Pedestrian walkways elevated above adjoining surfaces, or walkways within six feet of the top of excavated slopes or vertical banks shall be protected with guardrails.

- Barricades shall be constructed in all areas required by state and/or local ordinances. Barricade construction shall be in accordance with local requirements and exist between work areas and pedestrian walkways or occupied buildings. Barricades shall be secured from accidental displacement and shall be maintained in place, except where temporary removal is necessitated by work performance. During the period of temporary barricade removal, for the purpose of work, a watchman will be posted at all openings.
- Warning signs and lights, flares, and electrical lighting in compliance with local requirements shall be maintained from dusk to sunrise. Signs and lights are to be placed along guardrails, barricades, temporary sidewalks and at every obstruction to the public. They shall be placed at both ends of such protection of obstructions and shall also be placed at minimal intervals of twenty feet.

Foreman or Supervisor Responsibilities

- Ensure understanding and compliance with the Safety & Health Plan outlined in this manual.
- Ensure that all employees understand and comply with the safety responsibilities outlined in this Aetna Bridge Safety & Health Plan.
- Ensure that all work is performed in accordance with all applicable local, State & Federal Regulations and at least this Safety & Health Plan and prevent unsafe acts and conditions from existing.
- Ensure the availability and use of all required protective equipment and provide instruction to the employee in its proper use.
- Evaluate workers' safety performance and respond to violations using the framework of Aetna's disciplinary policy contained within this manual.
- Act without delay on all hazards which are recognized.
- Work with the Safety Director to investigate all accidents with employees and report any and all incidents, no matter how minor they may appear following a reported injury and completed report.
- Allow no machine to operate within 15 feet (or any other applicable criteria) of any power line.
- Notify all other contractors and subcontractors when actions undertaken could adversely affect the health and safety of anyone on your job site.
- Conduct weekly "Toolbox" safety meetings with personnel. Note on the document the subject of the meeting and names of those in attendance.
- Ensure all injuries are treated immediately and all accidents and illnesses are reported promptly.
- Inform project management of any violations or emergencies that are outside the scope of the foreman's authority.
- Foremen have full authority to implement and enforce all safety rules and regulations.
- Inspect the job site daily for safety hazards, violations, or any unsafe conditions and correct immediately.

Employee Responsibilities

- Make it your business to know and understand your safety responsibilities as outlined in this Safety & Health Plan and ensure compliance with these policies.
- Ensure that all work is performed in accordance with this safety program and take every opportunity to prevent unsafe conditions from existing or continuing to exist.
- Constantly observe work conditions, equipment, and tools for the purpose of preventing accidents.
- Correct and avoid unsafe acts or conditions within your immediate work area. Notify immediate supervisor if corrective cannot be made or completed.

- Ensure the availability and use of all required protective equipment and proper use instructions. Use all safety equipment which is required at any particular job site. Hard hats, safety eye protection and steel-toed boots are a requirement for all employees at all sites.
- Act without delay on all hazards which are within the scope of your responsibility.
- Stop work when an immediate or potential hazard exists or in the event conditions are such that there is immediate danger to life, limb, or property.
- Report all accidents or incidents to the Safety management of Aetna Bridge immediately following a reported injury or hazardous situation.
- Ensure all injuries are treated immediately and all accidents and illnesses are reported promptly.
- Notify all other contractors and subcontractors when actions undertaken could adversely affect the health and safety of anyone on your job site.
- Hold a valid OSHA Construction 10 Hour Card from an Authorized Training provider.
- Before leaving at the end of the day, conduct a job site inspection for violations, or any unsafe conditions and report to your foreman the exact location and hazard.

All employees are empowered to voice their concerns to their supervisor if a hazard is present and allowed to contact the Safety Director for guidance.

General Safety Rules

1. All employees are obligated to recognize, communicate to management, correct and/or avoid safety hazards and to take all necessary precautions to prevent accidents.
2. Practice good housekeeping in your work area. All tools shall be properly maintained. Do not leave materials and scrap in the work area; pick up or remove nails and other debris.
3. Obey all posted warning signs, such as **"KEEP OUT," "NO SMOKING," "EYE, HEAD AND FACE PROTECTION REQUIRED" and "AUTHORIZED PERSONNEL ONLY."**
4. Sliding down ropes, cables and guys is forbidden.
5. Jumping from elevated heights is strictly forbidden.
6. Use or possession of alcoholic beverages, illegal or nonprescription drugs on the job site is strictly forbidden and subject to termination; we are a zero-tolerance company.
7. Equipment will not be left unattended while in operation or in motion.
8. No one shall be permitted to ride on equipment unless in seats provided inside equipment cab.
9. Loose or torn clothing will not be worn around moving equipment.
10. Gasoline will not be used for cleaning hands, equipment or parts.
11. Compressed air is not allowed for blowing dirt or dust from your body or clothing, blown at another person or horseplay.
12. Hard hats and safety eye protection are required on all Aetna Bridge jobsites along with ¼" length shirts, long trousers, and safety-toed work boots. Shorts, cut-off shirts, sweatpants, sneakers, or other lightweight shoes will not be worn. If employee does not have appropriate protection, they will be required to leave jobsite and not return until compliant; there will be no compensation for this time.
13. Use of headphones and earbuds is not permitted unless they are part of a system designed for work-related communications. Listening to music or mp3 players is not permitted on the jobsite.
14. Allow no machine to operate within 15 feet of any power line.
15. Confined space entry will only be allowed after proper training, air sampling has been completed and all applicable forms filled out and signed.
16. Only the person who tags out or locks out equipment is allowed to remove such a tag or lock from the equipment.
17. Employees may take lunch breaks only during designated times and must eat in the area assigned for this while on the job site. There will no eating, smoking in the work area.

18. Personnel will not quit work before the time designated for the conclusion of the work shift. There will be sufficient time allocated for the removal of work clothes, decontaminations, cleanup, etc.
19. Employees must report to work each regularly scheduled workday. Continued absenteeism is a violation of these rules.
20. Personnel must comply with both oral and written instructions from a Superintendent or Safety Director.
21. While on the job site, personnel must comply with all State, Federal, MFG, Local and standards contained within this manual.
22. All personal work injuries, no matter how minor they may appear, must be reported to a supervisor immediately.
23. If respirators are a requirement of the job, they will not be removed while in the work area for any reason. They will be worn in accordance with Aetna's Respiratory Program and OSHA standards.
24. If air sampling equipment has been attached to an individual, this equipment must be left alone and unobstructed until instructed to remove it; any persons sampled will receive a copy of any results.
25. Fighting or attempting bodily injury to another employee or Company visitor while on Company property is not permitted and is cause for dismissal.
26. Unauthorized use of or willful or wanton neglect in the care and/or use of company property is not permitted.
27. The carrying of weapons on Company property or in Company vehicles is expressly forbidden.
28. Falsifying Company records and/or reports will not be tolerated.
29. Failure to comply with required safety rules may result in disciplinary action, including termination.

Traffic Control Policy

A traffic control plan will be in place in accordance with the latest MUTCD where applicable, where there is movement of vehicles in conjunction with the presence of workers conducting tasks. The authority in charge, Federal, State or local, will determine the configuration of the temporary traffic control zone for motorists and pedestrians. Each Project Manager will ensure that drivers, workers on foot and pedestrians will be able to see, understand and follow the routes, detours, and closures they are to follow. Workers will be educated on work zone safety.

The authority in charge of the design will determine the approved traffic control devices such as cones, barrels, barricades, and delineator posts that will be used as part of the traffic control plan. These devices should also be used inside the work zone.

Work Zone
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. Operators and workers on foot need to know the visibility limits and the "blind spots" for each vehicle on site. Workers on foot will wear appropriate class high visibility gear for site work. Night work requires Class 3 reflective gear.

Flaggers
Should be trained/certified and use the signaling methods required by the authority in charge.

Lighting
Flagger stations should be illuminated. Work lighting for workers on foot and operators will be

adequately lighted; where available lighting is not sufficient, flares or chemical lighting should be used. Glare affecting workers and motorists should be controlled or eliminated.

Marine Safety Working Over Water

General Rules
All employees (including crane operators) working along the water or on water-going vessels where the danger of drowning exists shall wear a U.S. Coast Guard Approved personal flotation device (PFD) with all connections properly engaged at all times.

While a PFD is not required to be worn while an employee is inside an enclosed cab or equipment compartment, each employee shall don a PFD when exiting such areas.

A PFD shall be accessible to the employee at all times while inside enclosed cabs or equipment compartments. This will allow the employee to don the PFD in a reasonable amount of time during an emergency (i.e., vessel sinking, fire, etc.).

All PFDs shall be inspected prior to and just after use. PFDs shall be maintained in good condition and shall be considered unserviceable when damaged so as to affect their buoyant properties or capability of being fastened.

30" Coast Guard approved life rings with at least 90' of line shall be provided at a minimum of every 200'.

A permanent or portable ladder which will reach from the top of the apron to the surface of the water and extend 3' above the upper landing level shall be provided.

Active work areas shall be kept free of equipment and materials not in use, and clean of debris, protruding nails, and other sharp objects not necessary for the work in progress. If while working an unsafe deck surface is encountered, work shall be discontinued and shall not be resumed until means have been taken to ensure a safe work surface.

At least one lifesaving skiff shall be immediately available at locations where employees are working over or adjacent to water. See OSHA.gov/laws-regs/standard interpretations/1991-12-06-01 for skiff requirements.

Access to vessels, vehicles and buildings shall be kept clear and clean at all times. Slippery conditions on working and walking surfaces, to the extent possible, shall be eliminated.

Emergency Management
First-aid kits and eye wash stations shall be available on site for the appropriate amount of personnel.

Spill kits shall be located aboard barges to control and prevent spills from entering the water body.

Fully charged ABC Fire Extinguishers shall be provided and readily accessible at all times.

Minimum number of hand-portable extinguishers required to be on board vessels:
- 1 if less than 50 tons
- 2 if 50 to 100 tons
- 3 if 100 to 500 tons

- 6 if 500 to 1,000 tons
- 8 if over 1,000 tons

Portable extinguishers shall be inspected every month and tagged.

A communication device shall be available in the field office for emergency use. Management will contact the Emergency Medical System via 911 in the event of any injury requiring treatment beyond first aid.

The United States Coast Guard will be notified via channel #16 VHF in the event that telephone contact cannot be established with EMS (911).

Barges and Other Vessels
Barges, tugs, and other vessels including small watercraft shall be maintained according to OSHA and USCG regulations. All vessels shall be operated and maintained by authorized personnel only. Vessels shall be inspected as required in the contract documents, at least annually thereafter, to ensure the vessels are in suitable operating condition. Initial surveys and/or current inspection certificates will be provided prior to use to the engineer for review to ensure the vessels are suitable for the intended use on the project.

Slips, Trips and Falls
Slips, trips and falls are major causes of workplace injuries especially on board barges and can lead to overboard incidents.

Minimize deck hazards by keeping all walking working surfaces clean, dry and unobstructed.

Keep all areas free from debris. Clean up spills immediately. Secure gear not in use.

Secure ramps during loading and offloading operations. Have de-icing procedures in place when necessary.

Do not jump from one barge to another.

Gang planks with guardrails shall be used when the separation between a barge and a dock or another vessel is more than 12”.

Do not climb on cargo, supplies or equipment instead of using ladders.

When working off ladders remember that the vessel(s) it is resting on or secured to can move. Use the buddy system, so one person can hold the ladder.

Avoid walking along the unguarded edge of a barge.

Paint obstructions and tripping hazards a high visibility contrasting color. All deck holes, openings, and hatches shall be covered or guarded.

Regular Maintenance and Inspection
Barges should be inspected on a regular basis and as necessary, to prevent problems related to missing equipment, hazardous working surface conditions, and mechanical failures that could contribute to falls overboard.

Man Overboard (Unexpected fall into water from elevated height)

- Upon person falling into water, the witness shall YELL “MAN OVERBOARD” clearly and repeatedly until water rescue boat is notified.
- Operator shall depress the distress button on GPS and communicate location with appropriate personnel; using a predetermined direction/location where the person went into the water.
- The ring buoy shall be deployed immediately by the Deckhand to allow target the opportunity to swim to a secondary flotation device and can be used as a reference point maneuvering to the target.
- Deckhand shall inform the Boat operator when to slow boat and/or to come to a stop as Deckhand maintains eye contact with water target and points.
- Operator shall alert Deckhand prior to any maneuvers clearly and maintain slow speed reciprocal turn as turn is executed with a 1-2 second pause before initiating maneuvers.
- The reciprocal turn allows the operator and Deckhand to see the prior wake as they proceed back to previous location off the stern; this should be Standard Operating Procedure (SOP).
- Upon approaching water target slow to almost to drift, disengaging the motor as to prevent prop strike.
- Line up boat as to have access opening on port side.
- If buoy line is visible, use boat hook to reach over side and grab the line and pull to the boat.
- Keep off rails during rescue operation and pull to access door/opening.
- Use davit arm to assist in raising target into boat, using as much caution as possible to avoid any injuries.
- The Operator shall notify all appropriate Aetna personnel of MOB and location as soon as possible.

Post-Rescue (person is in boat)

- Maintaining a slow speed going back to the rescue area, launch area
- Continue to monitor patient’s condition—treat within scope of knowledge for any injuries, shock, or possible hypothermia
- Cancel any distress calls if no additional help is required
- Continue to monitor patient’s condition—treat within scope of knowledge for any injuries, shock, or possible hypothermia
- Notify medical support if needed

Complete all required and necessary paperwork.

It is critical to have clear procedures in place in case someone falls overboard. Man overboard procedures should incorporate the use of rescue skiffs/boats with designated rescue teams, life rings with the appropriate length of rope, and ladders extending 3’ below the surface of the water. In the case where an employee falls overboard, they will need assistance to get back on board. This must be accomplished quickly, particularly if the water is frigid, the person is not wearing a life jacket, is tangled in a line or caught in a current. Crews should participate in man overboard drills regularly. Additionally, during the winter months where employees are at greater risk of hypothermia, additional precautions (e.g., flotation work suits) should be considered.

Machinery and Equipment Hazards

Hazards related the use of machinery and equipment can result in injuries to hands, feet, or limbs that become caught in moving machinery; head and other injuries from being struck by falling objects or moving equipment; and burns.

Inspect all equipment before use. Maintain equipment properly.

Ensure that employees using the equipment are trained in its proper use and maintenance.

Spud Winches
Employees should use devices or tools, never hands, to keep the winch line spooling properly.

Winch drums and moving parts shall be adequately guarded to prevent contact with moving parts.

Employees should stay off the deck unless they are part of the winching operation. Never stand in, on, over or in line with lines or cables connected to winches when they are under tension. The danger zone is 15 degrees on either side of a line under tension.

Inspect the winch system regularly for problems with general or localized deterioration, cracked welds, and other structural, mechanical, or electrical deficiencies.

Inspect lines and cable systems regularly, including blocks, hooks, and associated components, for signs of damage or deterioration.

Guards should be installed between the winch operator and the connected cables to protect the operator from potential whiplash.

Never stand in the slack or loop of the line.

Spuds
Before the barge is moved, the spuds need to be raised so that the pinhole is above the resting area of the securing pin. Each spud shall be pinned in the raised position.

The licensed master of the towing vessel, who is responsible for ensuring that the vessels under his or her control are safe to move, needs to ensure that spud securing pins are in place and have a means to prevent inadvertent disengagement before the tow is underway.

Before attempting to lower mooring spuds, ensure that spud securing pins are completely removed and that employees are clear of the immediate area. Such practices will help avoid employees being struck by dislodged pins, which can weigh up to 85 pounds.

Confined Spaces - Refer to earlier section
The confined spaces on barges may have an atmosphere that is unsafe, causing injury or death. The main hazards include: oxygen deficiency, explosive or flammable atmospheres, and atmospheres containing toxic compounds. These hazards can be found in watertight compartments or other areas with little or no ventilation.

The rusting processes inside steel compartments where water or water vapors are present remove oxygen from the atmosphere.

Fire Hazards
Steps shall be taken to prevent fires on board barges. The following are examples:
- Store engine fuel tanks and compressed gas tanks properly, away from sources of ignition. Post appropriate danger signs.
- When dealing with work that is capable of providing a source of ignition through a flame or spark (hot work), such as welding, cutting, burning, drilling, grinding, etc., make sure that fuel sources are kept away from the work area and proper fire extinguishing equipment is near the work area.
- Consider where sparks will fall while doing hot work and employ a fire watch.
- Shield fuel sources to prevent them from ignition sources.

- Cover openings to prevent sparks from entering.
- Stop hot work if you smell fuel or gas until the source has been identified and the problem fixed.
- Refer to Welding and Cutting in the safety plan for further information.

Weather Conditions
Where wind speeds are encountered of more than 30 mph (or if using equipment, the manufacturer's recommendations) all work must cease until more favorable conditions exist.

The competent person shall evaluate sea conditions prior to the start and over the course of the workday to ensure the safety of the crew.

Other Guidelines
Gangways for access to vessels, whenever practicable, shall have a walking surface at least 18" wide and a guardrail meeting the requirements of 1926.502(b) on each side. Gangways shall be well maintained and provided with surfaces to prevent slipping.

Employees shall not be permitted to walk along the sides of barges with coamings more than 5 feet high unless there is a 3-foot clear walkway, grab rail or taut hand line provided.

A Tug Captain License must be attained and in conformance with all applicable union certifications.

The captain is responsible for conducting routine station drills, boat safety inspections, relevant safety talks, safe weather conditions, abandon ship drills, and man overboard drills.

Enforcement System - Violations of Safety Policy

All violations of this safety program by Aetna Bridge employees shall be dealt with in the following manner. A safety violation may occur when not following verbal or written safety procedures, guidelines, or rules, when engaging in horseplay, failure to wear selected personal protective equipment (PPE), etc.

Each violation will be reviewed on a case-by-case basis, taking the particular circumstances and safety record of the employee into account. Review includes meeting with employee(s) to discuss the infraction, the rule or procedure that was violated, and the corrective action to be taken. **See Written Warning Letter Example in Supplemental Section.**

Action shall be taken in the following sequence:

Verbal Warning
A verbal warning shall be given by the Foreperson or Supervisor as a result of a minor infraction. The Foreperson or Supervisor shall keep a record of verbal warnings and they are to be forwarded to the Safety Department each week.

Written Warning
Written warnings shall be issued by the Safety Department when a review of verbal warning records shows the need for such action. Written warnings shall be issued after a verbal warning or for a major violation without the need for a previous verbal warning. The written warning shall be kept in the

employee's personnel file.

Suspension and Dismissal
A suspension may result after a written warning. Gross violations may warrant suspension without a previous written warning. The Management of Aetna Bridge shall make the final decisions on suspensions. The employee will not receive pay for the term of the suspension.
Continued safety violations can result in dismissal.

Subcontractor Employees
Aetna Bridge expects subcontractors to deal with their employees with a comparable enforcement system.

Drug- and Alcohol-Free Workplace Policy & Testing

Scope/Purpose
Aetna Bridge Company is committed to providing a safe and drug-free work environment for our clients and our employees. Illegal drug and alcohol abuse poses a significant threat to this goal. This drug-free workplace policy balances our respect for individuals with the need to maintain an environment free of illegal drugs and alcohol.

Note: Illegal drugs include marijuana (whether or not a worker has a valid prescription), cocaine, opiates, phencyclidine, amphetamines, as well as prescription or over-the-counter medications that are used either without a valid prescription or in nonstandard dosages.

Aetna trade employees are covered by this policy, which is intended to apply during the entire shift of a worker, and includes off-site work if that work is incidental to their on-site work. For example, leaving the site to pick up supplies or materials and working on a joint venture project.

MA Trade carpenters will test in pursuant to Article 19 of the collective bargaining agreement between the Union and Aetna Bridge Company.

Company Policy Explicitly Prohibits:
- The manufacture, use, possession, sale, trade and/or offer for sale of narcotics or other illegal drugs, marijuana, alcohol, or prescription medication without a prescription while appearing on Company or customer premises/job sites, or while performing an assignment, or driving or occupying Company vehicles.

- Being impaired or under the influence of legal or illegal drugs or alcohol away from Company or customer premises, if such impairment or influence adversely affects the employee's work performance, the safety of the employee or of others, or puts at risk the Company's reputation.
- The presence of any detectable amount of prohibited substances in the employee's system while at work, while on the premises of the Company or its customers, or while on Company business. "Prohibited substances" include illegal drugs, alcohol, or prescription drugs not taken in accordance with a prescription given to the employee.

Nothing in this policy shall require the Company to undertake drug or alcohol testing as a prerequisite to disciplinary action, or to restrict the Company's discretion to base disciplinary action solely on evidence of behavior, personal observations, or other evidence or information customarily relied upon in making employment or disciplinary decisions.

Responsibilities
Employees are encouraged to voluntarily seek help for illegal drug and alcohol abuse problems. To that end, the Company will provide information to workers regarding the availability of resources.

Use of prescription and over-the-counter medications is not prohibited when taken according to a physician's prescription and/or in a standard dosage. Individual is responsible for consulting the physician or pharmacist about whether the medication may interfere with the safe performance of his/her job. It is the worker's responsibility to use appropriate personnel procedures (call in sick, request personal medical leave, request change of duty, notify supervisor) to avoid unsafe workplace practices.

Prescription medications shall be stored in the original labeled containers. Storage in unlabeled or inaccurately labeled containers is prohibited. The type of medication and the worker's authority to possess such medication shall be clearly labeled.

Prescription drugs that may interfere with safe operation of equipment/tools must be identified to management.

Unauthorized or illegal use of prescription medications is a violation of this policy. Unauthorized use of any beverage, mixture, or preparation (including medication) containing ethyl alcohol is prohibited, except with a valid prescription.

Unauthorized use includes reporting to work under the influence of illegal drugs and/or ethyl alcohol.

Any worker who violates this policy is subject to disciplinary action, up to and including termination of employment.

The Company maintains the right to search employer-controlled equipment and property, public areas, as well as those areas of the project that are open and obvious. Further, the Company will fully cooperate with efforts of the local police department to investigate activity involving the suspected use, possession, sale or trade of illegal drugs or ethyl alcohol within the work environment.

Where permitted by state and federal law, the Company will conduct drug testing under one or another of the following circumstances:

For Cause
The Company may ask an employee to submit to a drug test at any time it feels that the employee may be under the influence of drugs or alcohol, including but not limited to:
- Evidence of drugs or alcohol on or about the employee's person or in the employee's vicinity,
- Unusual conduct on the employee's part that suggests impairment or influence of drugs or alcohol,
- Negative performance patterns,
- Excessive and unexplained absenteeism/tardiness or,
- Unusual or erratic behavior witnessed by management personnel.

Post-Accident
Any employee involved in an on-the-job accident or injury under circumstances that suggest possible use or influence of drugs or alcohol in the accident or injury event may be asked to submit to a drug and/or alcohol test.

"Involved in an on-the-job accident or injury" means not only the one who was injured, but also any employee who potentially contributed to the accident or injury in any way.

Post-Offer
Any offer of employment is contingent upon an applicant's submitting to a drug test and achieving a negative test result. All applicants or newly hired employees will be asked to submit to a drug test.

This requirement does not apply to applicants who have worked for the Company within the prior 12 months of the date of application for reemployment.

Each applicant or employee who takes and passes the drug screen test will be paid for all the time it takes to undergo the test, up to two hours maximum, travel time plus lab time. Applicants not passing the drug screen will not be placed on the Company payroll or receive any compensation. Employees not passing the drug screen will be removed from the Company payroll. The Company agrees to pay the cost for administering the drug screen.

Site Specific
Working with or for other companies – Employees at any time may require a pre-start drug test and safety orientation, all employees may be subject to this type of testing as condition of contract requirements.

Procedures
Specimen Collection
Where a test for alcohol consumption is indicated in these procedures, the test will be administered using calibrated equipment that operates by infrared spectroscopy.

In the instance of For Cause or Post-Accident testing, the Company project supervisor, in the presence of another Company employee/witness, will tell the employee to stop work and will be asked to submit to a drug test. The union steward for the respective trade will be notified.

The employee will be driven to the nearest Occupational Medical Facility for a drug and/or alcohol test.

As required or permitted in certain specific situations related to suspected specimen adulteration, prior verified positive drug test results, specific gravity and creatine level outside of a specified range, or temperature outside of an acceptable range, a directly observed collection by a same sex collector may be administered at an Occupational Medical Facility.

In certain situations (e.g., insufficient quantity), the specimen must be discarded and a new collection will be initiated. During the collection process, the individual may only consume fluids in permitted quantities which will be reasonably distributed throughout the allowed waiting period. Fluids must be consumed as directed; otherwise, it will be considered that the individual is interfering with the collection process.
Specimen Testing
All specimen collection and screening will be performed by an appropriately trained technician utilizing a self-contained screening device that detects the presence of illegal drug metabolites for amphetamines, cocaine, marijuana, opiates and phencyclidine. The device requires no handling by the individual or collector to activate the testing process. The screening device uses standard thresholds to provide either a negative or nonnegative result.

Each nonnegative urine specimen will be immediately forwarded via Federal Express in a secured individual package to a DHHS certified laboratory along with an appropriate chain of custody paperwork for confirmation testing. The laboratory will perform confirmation testing using Gas Chromatography/ Mass Spectrometry and standard thresholds.

Collection and Testing Process Integrity
Service providers utilized in connection with drug testing will comply with established protocol intended to ensure the accuracy and confidentiality of test results and the fair and respectful treatment of the individual being tested.

Each individual who is tested must provide positive identification to ensure he or she is the correct person. Only alphanumeric coding will be used to identify specimens sent to the laboratory.

Individuals will remain in direct visual contact with their specimen container until the collection process is complete. Collection containers will have tamperproof seals, and a drug test record will be prepared along with custody and control forms for confirmation tests.

There is a "chain of custody" process that directly follows a specimen from initial collection through confirmation testing. If there are unrecoverable irregularities in this process, the test is declared a "broken chain of custody" and it is canceled.

Medical Review Officer
A medical review officer (MRO), a licensed physician (medical doctor or doctor of osteopathy) who has appropriate knowledge and medical training, will interpret and evaluate each confirmed test result together with the individual's medical history and any other relevant biomedical information. The MRO will review the laboratory's chain of custody documentation to ensure it has properly tracked the handling and storage of the specimen.

Before determining that a confirmed positive test result is a verified positive, a canceled test, or a verified negative test result, the MRO will rule out alternative medical explanations, review the tested individual's medical records, and will give the individual an opportunity to discuss the test result.

It is the individual's responsibility to return a phone call to the MRO within 24 hours upon receiving a message from the MRO. Failure of the individual to contact the MRO within this time frame will result in the MRO making a determination of the confirmed positive drug test result without input from the individual.

Consequences of Nonnegative Drug Tests
A nonnegative screening result will place the individual's employment with the Company on hold until the MRO has completed a review of the confirmation test result.

The MRO will reach one of the following conclusions:

- **Canceled Test** – The individual must make himself or herself immediately available for a second test.
- **Verified Negative Test** – The individual will be immediately placed in the employment of the Company (in the case of Post-Offer Testing), or the employee will be returned to work and will receive full pay for the day (in the case of For Cause or Post-Accident testing).
- **Verified Positive Test** – The individual will be immediately ineligible for employment consideration for 6 months following the verified positive test result, or the employee will be immediately terminated from employment (in the case of For Cause or Post- Accident testing).

Consequences of Refusal to Submit
Refusing to submit to a drug and/or alcohol test, as required, is a violation of this policy. Behavior that constitutes a Refusal to Submit includes:

- A direct refusal to take a drug and/or alcohol test,
- Failure to provide sufficient quantity of urine or breath without a valid medical explanation,
- Tampering with or attempting to adulterate a specimen,
- Engaging in conduct that obstructs the testing process, and
- Not reporting directly to the collection site after notification.

Any refusal to submit to a test of any kind must be documented. The consequences of a Refusal to Submit are equivalent to a positive test result.

MA carpenters will be held to the policy agreement, pursuant to Article 19 of the current collective bargaining agreement between the Union and Aetna Bridge Company.

Subcontractor Responsibilities

- Abide by all federal state and local regulations.
- Provide their Safety & Health Plan to Aetna Bridge to follow provisions specified in this plan.
- Provide a Job Task Hazard Analysis to Aetna Bridge two weeks prior to work beginning.
- Identify a Competent Person/Safety Representative to participate in periodic safety meetings with Aetna Bridge.
- Sign an acknowledgement for the receipt of Aetna Bridge's Safety and Policy Manual (Aetna Safety & Health Plan).
- Participate in a Pre-job Safety Meeting with Aetna Bridge.
- Maintain a copy of its Safety & Health Plan at the job site.
- Follow the Aetna Safety & Health Plan in addition to its own Safety & Health Plan. If there is a conflict between the Aetna Safety & Health Plan and its own Safety & Health Plan or the applicable federal, state and local regulations, then the more stringent guidelines shall be implemented.
- Ensure that its Competent Person/Safety Representative shall monitor and enforce compliance with its Safety & Health Plan and Aetna's Safety & Health Plan, identifying additional hazards as the work proceeds, and adjusting as necessary.
- Ensure that its employees always utilize fall protection that meets regulatory requirements at the job site.
- Notify all other contractors and subcontractors when actions undertaken by them could adversely affect the health or safety of employees of other companies.
- Inform Aetna Bridge of all injuries to subcontractors' workers.

- Report to Aetna Bridge any unsafe conditions brought to your attention. Controlling contractor is responsible for the maintenance of safe working conditions.
- Stop work when a hazard or potential hazard exists or in the event that conditions are such that there is immediate danger to life, limb or property.
- A controlling contractor is a subcontractor that had contractually agreed to control its work force, materials, tools, and equipment and control the methods or operative detail of its work, including the safety of its workforce.
- A controlling contractor is solely responsible for providing for its employees a safe workplace where it is conducting its work at the job site.
- Nothing in the Aetna Safety & Health Plan regarding subcontractor's responsibilities is intended to suggest that Aetna Bridge in any way controls the work force, materials, tools and equipment of a controlling contractor or the methods or operative details within which it conducts its work.

Attention to Injuries

ALL incidents that occur on the job are to be reported to the Safety Director, Joan Zapatka, by telephone and/or email using the information listed below; Joan will work with Chris Jamieson to be sure we provide each person appropriate care, insurance reporting as well as OSHA required record keeping.

The First Report of Injury Report - which all Superintendents have an electronic version of - is to be completed as soon as is possible with the Superintendent. The completed form can be scanned, attached to an email, or even attached to a text to Joan; however, it needs to be completed with the injured person's information and their explanation of the Injury or Incident and signature. If any help is needed with this form, please call Joan. Medical services and first aid will be available at all job sites before work commences. The location and identity of persons available to render first aid will be prominently posted at the job site.

First aid supplies shall be readily available when needed, stored in a weatherproof container, and individually packaged. K kits shall meet the minimum requirements as published in ANSI Standard ANSI/ ISEA Z308.1-2015.

Each job site will have proper equipment for prompt transportation of an injured person to a medical facility, or a communication system for contacting ambulance service.

In addition to 911 - phone numbers and addresses of the closest hospitals, and/or ambulances shall be conspicuously posted.

Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

- Workers are required to know the location and content of first aid kits.
- All injuries shall be reported to the Foreperson, Superintendent, or the Safety Director immediately. If an injury requires more than first aid onsite, it is required that prompt, professional medical attention be secured for the injured worker.
- Once an accident has occurred, the Foreperson shall immediately contact the Safety Director and work together to fill out an accident report form. THIS IS REQUIRED. The form will be filled out with a complete description of the accident and shall be sent to the Safety Director's office within 24 hours.
- If at all possible, the injured employee will be transported to a predetermined location, or a local Concentra facility:
  Concentra Urgent Care; 400 Bald Hill Rd. Warwick, RI 401.738.8100
  Concentra Urgent Care; 290 Branch Ave. Providence, RI 401.722.8880

At no time shall an employee post, comment or discuss incidents or injuries to anyone outside of the company executives and the emergency response team. Refer any questions to the president and make no comment. **See Aetna Bridge Company's First Report of Injury in Supplemental section.**

First Aid Kit Contents

First aid kits shall consist of appropriate items and stored in a weatherproof container with individual sealed packages. The first aid kit shall meet the minimum requirements as published in ANSI Standard Z308.1-2015.

Infectious Disease, Covid-19 Awareness

Employees of Aetna Bridge must be aware of blood-borne pathogenic microorganisms that are present in human blood and other body fluids that can cause disease or viruses such as hepatitis A, B & C virus

or human immunodeficiency (HIV), and Covid-19.

Employees must be aware of how to handle possible exposure to these pathogens when encountered during normal work activity.

Should an accident or incident occur in which an employee sustains an injury, universal precautions shall be observed to prevent contact with blood and other potentially infectious materials. (Universal precautions is an approach to infection control to treat all human blood and human body fluids as if they were known to be infectious for HIV, HBV and other blood-borne pathogens.)

Disposable gloves shall be worn when contacting blood, mucous membranes, other potentially infectious materials and nonintact skin. When feasible, such as when an employee cuts his finger and only requires a Band-Aid, that employee should be responsible for his or her cleaning up of any contaminated areas. Alternatively, a designated person who is trained to use the proper materials while decontaminating could do any cleanup. If the injury is major, an outside qualified decontamination agency shall be utilized.

Contaminated surfaces shall be cleaned with an appropriate disinfectant such as bleach and shall be done immediately after any spill of blood or other potentially infectious materials on any surface. All cleanup materials shall be disposed of properly in a plastic bag that can be sealed. Coordinate all cleanup activities with management personnel.

COVID-19 Preventative Measures & Management Plan – FOR USE DURING STATEWIDE PANDEMIC

Our goal is to provide a safe and hazard-free environment by ensuring our workforce is well-informed with our updated policies, follow prevention guidelines, and utilize sanitation procedures. This policy should be considered a working policy, as the virus changes, we continue to follow state and federal recommendations. Through frequent communication from supervisors to foreman and their crews, it is possible to decrease the chance of contamination and spread of the virus. Therefore, while in a state-declared pandemic, and out of an abundance of caution, we want to make sure we all take the following steps to address COVID-19:

- Daily morning meetings to be broken down into smaller groups (less than 6) conducted by each foreman in different locations and with shortened durations (limit social distancing to six feet or more)
- Disinfecting wipes will be provided as SOON as we have them to each foreman and should be kept readily available in their trucks while following the mandatory procedures below:
  a. Commonly touched areas exterior and interior of vehicle (handles, steering wheel, dashboard, etc.)
  b. Clean hands before consumption of food - CHECK WIPES TO BE SURE THIS IS OK
  c. Clean hands before using facial PPE (eye protection, dust masks, ear plugs) - CHECK WIPES TO BE SURE THIS IS OK
  d. Wipe down storage trailer, field office and porta john door handles
  e. If portable restrooms are available with the hand washing stations, we encourage you to order what is needed for your site(s) - if the hand washing stations are available, please repeat.
  f. Practicing standard sanitation and hygiene regimens is a top priority as we will: Encourage frequent and thorough hand washing (20 sec. with soap and water)
  g. Remind everyone to keep noses and mouths covered when coughing or sneezing
  h. Avoid touching in and around the eyes with unwashed hands.

We emphatically insist on staying home from work if feeling sick; and only returning after clearance from a Medical Provider. Common symptoms included fever, cough, chest tightness and difficulty breathing.

If a shortage of all types of disinfectants becomes problematic, and if employees find them in their

USUAL travel, we welcome them to purchase a small quantity (2 or 3 @ a reasonable price) and they will be reimbursed. Please speak to your supervisor before this action.

Confined Spaces

All confined spaces shall be considered "permit-required" spaces unless a pre-entry procedure has demonstrated otherwise. Anyone required to work in a confined space must have been trained by Aetna's Safety Director prior to entering space.

Policy
No person, employee or visitor shall enter a "Permit Required Confined Space" until the safety requirements of this Confined Space Entry Program are met, **and** Aetna Bridge's Safety Director has been made aware and involved in this work.*

A permit must be completed before approval can be given to enter a "permit-required" confined space. This permit shall be maintained at the job site for the duration of the **job. If circumstances cause an interruption in the work or a change in the alarm conditions for which entry was approved, a new permit must be completed.**

All confined spaces must be tested for oxygen content and/or potential toxic/poisonous/explosive gases documented prior to entry.

Purpose
The purpose of this program is to establish the OSHA requirements necessary to ensure the well-being and safety of all personnel who are assigned to work in a Confined Space.

- Where dangerous gases or harmful substances are present in the immediate work area, appropriate respiratory equipment will be put into use.
- Proper ventilation and all other required protective equipment shall be used.
- Proper access and egress are required.

If you develop dizziness, nausea, or there is any significant change in your physical condition, leave the hazardous area **immediately**, then identify the hazard and check your equipment.

Hazardous work areas containing noxious or poisonous gases shall not be entered without following "permit required confined space" program and proper protective equipment being worn and without being accompanied by a fellow employee who has been properly trained and is familiar with the use of such protective equipment.

Clean and ready all equipment after use. Store in a sanitary manner.

Responsibility
Implementation of confined space work must be done by an experienced and competent person. All employees involved with confined space entry operations must be familiar with this safety procedure and have received proper training and are responsible for understanding and complying with the requirements of this procedure.

The entry supervisor is responsible for authorizing the confined space entry permit and the personnel entering the confined space.

The Attendant is to have no other duties when on duty as Attendant.

NOTE: It is mandatory that Aetna Bridge's Confined Space Permit in the Supplemental Section of this manual be followed prior to any and all confined space entries. Check with the immediate site supervisor/foreperson to ensure that approval for entry has been documented. **IF NOT, YOU ARE NOT TO ENTER THE CONFINED SPACE!!**

***See Confined Space Entry Permit in supplemental section.**

Hearing Protection & Conservation Program

Exposure to excessive noise can cause a gradual deterioration in hearing. Therefore, all employees shall undergo training in hearing conservation on an annual basis. We will supply the proper protection prior to and when the noise level exceeds the PEL of 85 dB.

All employees shall undergo training in hearing conservation on an annual basis. The training will cover the function of the ear, the effects of noise and the proper use, care and fitting of hearing protection devices when the noise level exceeds the PEL of 85 dB.

To provide an estimate of expected employee noise dosages, periodic sound surveys will be conducted. Administrative and engineering controls will be utilized to reduce noise prior to the use of hearing protection devices.
After administration and engineering controls have been exhausted, hearing protection devices will be used.

An audiometric testing program is established and will be maintained for all employees whose exposures meet or exceed the 8-hour time-weighted average of 90 decibels.

All employees will be encouraged to undergo an initial baseline audiogram within 6 months of first exposure to noise levels at or above the action level. Where mobile test vans are used, the baseline shall be established within the first year.

Employees being tested to establish the baseline audiogram shall have at least 14 hours without exposure to workplace noise just prior to the test. Hearing protection may be used to meet this requirement. Employees shall also be notified to avoid high levels of noise.

Audiometric testing will be done at least annually after the baseline audiogram for each employee exposed to levels at or above an 8-hour time-weighted average of 85 dB.

The annual audiogram will be compared to the baseline audiogram to determine if the audiogram is valid and if a standard threshold shift has occurred. Hearing evaluations will be conducted by an audiologist or audiometric technician after testing.

The findings of the audiometric evaluations will be communicated to each employee and the Safety Director or company management.

If a comparison of the annual audiogram to the baseline test should indicate a standard threshold shift of 10 dB or more at 2000, 3000 and 4000 Hz in either ear, we will obtain a retest within thirty days and consider the retest as the annual audiogram.

Employees shall be informed, in writing, of the standard threshold shift within (21) twenty-one days of

the determination.

Unless a physician determines that the standard threshold shift is not work-related or aggravated by occupational noise, we will ensure that employees not using hearing protection will be fitted for and trained in their use and will then be required to use them.

Employees already using hearing protection shall be refitted and retrained in their use and provided with devices offering greater protection, if necessary.

If subsequent audiometric testing indicates a standard threshold shift that is not persistent, we shall inform the employee of any new interpretation and the required use of hearing protection for that particular employee may be discontinued.

Employees who are exposed to noise levels at or above an 8-hour time-weighted average of 90 dB will be provided with hearing protectors at no cost to the employee. They will have the option of choosing the most comfortable hearing protection device for themselves. The three types to choose from are: two different types of earplugs and one type of earmuff. Employees may provide their own hearing protection, but only if it has been approved by the Safety Director or Management.

Hearing protection devices should be carefully inspected and replaced when they become worn out or are found to be defective.
Employees failing to wear hearing protection, when required, will face disciplinary action, as follows:
1st Offense: VERBAL WARNING
2nd Offense: WRITTEN WARNING
3rd Offense: BRIEF SUSPENSION WITHOUT PAY
4th Offense: TERMINATION OF EMPLOYMENT

Records of noise measurement will be maintained for a period of two years. For those employees affected, records of audiometric test results will be maintained for the duration of their employment.

In summary, we:
- provide employee training
- conduct sound surveys, as needed
- utilize administrative and engineering controls to manage noise levels before hearing protection devices are employed
- provide hearing protection to employees
- provide employee audiometric testing and evaluations

Hearing protection must be worn whenever there is a possibility of hearing impairment. Where there is a posted excessive noise warning, hearing protection shall be worn.

- Proper hearing protection may consist of any of the following: earmuffs, ear plugs, etc.
- Plain cotton is not to be used as hearing protection.
- Hearing protection shall be used when operating pneumatic air tools.
- Hearing protection shall be used when operating equipment without an enclosed cab.
- Headphones for radios, stereos, etc., are not to be used for hearing protection and will never be used over hearing protection.

Radios, stereos, etc., are strictly forbidden while operating any equipment or tools. Levels greater than 90 dBA shall require the use of PPE or compliance with Table D-2

Table D-2 Permissible Noise Exposures

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

Adherence to Protective Devices

No guard shall be removed from any machine/tool or piece of equipment except to perform required maintenance, and then only after assurances unit has been locked out/tagged out.

Before working on a machine or machine part with belts, shafts, etc., a hold card or lockout device shall be placed on the control system of the machine. No machine shall be put into service while a hold card or lockout is attached to it. The card shall be removed only upon authorization of the person who placed it, and only after all work has been completed and all tools removed.

Warning signs shall be obeyed. Persons observed in a dangerous or life-threatening location shall be warned.

Safety guards existing on machines, tools or equipment shall not be wedged, removed, or tampered with at any time. Broken or damaged guards shall be replaced immediately.

Fall Protection

- Employees will be trained in recognition and elimination of fall hazards, and in OSHA fall protection standards applicable to the type of work they are performing. If a job site has a written site-specific fall protection plan, it will be prepared by a qualified person. Employees will be trained in its requirements during site orientation.
- Refresher training will be provided when changes in the workplace or fall protection system or equipment changes present hazards not previously covered, or when employees demonstrate a lack of understanding of requirements, fail to maintain requisite proficiency, or previous training is deemed obsolete.
- Training records will identify employee's name, dates of training and name and signature of trainer.
- In the event of a fall, near miss or other serious incident, an investigation will be conducted to evaluate the current fall protection plan, and to update practices, procedures or training as needed to prevent reoccurrence.
- Always plan for prompt rescue in the event of a fall. Equipment with self-rescue features may be

used if employees are properly trained in its use. Planned rescue in the event of a fall should be covered in the pre-task briefing before activity starts.

- Guardrails, safety nets, or a "personal fall arrest system" shall be utilized whenever walking and/or working surfaces (horizontal or vertical) have unprotected sides and/or edges thus allowing for a person to sustain a fall from a height of six feet or more.
- When referring to a "personal fall arrest system" it shall mean a full body harness, lanyard, anchor system capable of withstanding a minimum load of 5,000 lbs per person and/or other components that meet ANSI Z359 standards in effect at the time of manufacture. A label presenting this information shall be affixed on the harness and legible; the age of the unit shall be within the manufacturer's recommendations.
- A body belt may be used only as a positioning device. Under no circumstances shall a body belt be used as a personal fall arrest system.
- Guardrails shall have a top-rail of 42 inches ± 3 inches.
- Guardrails must include a mid-rail at 25 inches ± 3 inches, and toe-board (if necessary).
- Guardrails must withstand a two-hundred-pound force in any direction except up.
- When guardrails are necessary to safeguard a hole, all sides and/or edges must be fully protected.

- Safety nets are to be positioned as close as possible, but not more than thirty feet below the walking/working surface. Testing or certification is required. Any relocation requires recertification and installation at the direction of a qualified person.
- Employers must determine whether walking/working surfaces are structurally capable of supporting workers safely.
- Workers on walking/working surfaces with unprotected sides or edges six (6) feet or higher above a lower level must be protected from falling by the use of guardrails, nets or fall arrest systems.
- Workers constructing or working near leading edges at six (6) feet or higher above a lower level must be protected from falls by guardrails, nets or fall arrest systems.
- Workers in hoist areas must be protected from falling six (6) feet or more by guardrails or personal fall arrest systems.
- Workers must be protected from falling six (6) feet through holes (including skylights) by hole covers, guardrails or personal fall arrest systems.
- Workers on the face of form work or reinforcing steel must be protected from falling six (6) feet or more by personal fall arrest systems, or nets.
- Workers on the nonactive edges of excavations deeper than six (6) feet must be protected from falling by guardrails, fences, or barricades when excavations are not easily visible.
- Workers less than six (6) feet above dangerous equipment must be protected from falling into or onto the equipment by guardrails or equipment guards.
- Workers six (6) feet or higher above dangerous equipment must be protected from fall hazards by guardrails, personal fall arrest systems or nets.
- Workers near wall openings six (6) feet or higher above lower levels and less than thirty-nine (39) inches above the walking/working surface must be protected from falling by guardrails, nets or personal fall arrest systems.
- Workers on walking/working surfaces six (6) feet or higher above levels which are not otherwise addressed must be protected from falling by guardrails, nets or personal fall arrest systems.
- Where workers are exposed to falling objects, the employer must: erect toe boards, screens or guardrails to prevent objects from falling, erect a canopy structure and keep objects away from the edge of the higher level, or barricade the area to which objects could fall and keep objects away from the edge of the higher level.

Ladders

General

- Inspect every ladder before using it. Remove from service any ladder found defective. Check tags and mfg. labels for clear legibility
- Painted ladders are not permitted.
- If it is necessary to place a ladder in or behind a doorway, barricade the work area and post warning signs on both sides of the door.
- While ascending and descending a ladder, hold on to a straight ladder with both hands and hold on to a stepladder with at least one hand. Use a hand line to raise or lower materials.
- Keep both feet on the ladder rungs. Do not reach out too far. Do not place one foot on a line or piece of equipment and the other on a ladder rung. Change the position of the ladder as often as necessary to keep within reach of the work.
- Face a ladder when working from it.
- Do not allow more than one person on a ladder unless the ladder is designed for more than one.
- Keep area at both the top and bottom of the ladder free of any hazards.

- Only nonconductive ladders may be used. Metal ladders are strictly prohibited.
- If it is necessary to use a ladder close to the edge of an elevated platform, roof, stairs, or floor opening, tie off the ladder and use a personal fall arrest system.

Straight or Extension Ladders

- Place a ladder so the base is one-fourth of the distance from the bottom of the supporting object of which the ladder is raised against or over, remembering that:
- The top of a ladder must extend at least three feet above the supporting object when such a ladder is used as access to an elevated work area.
- After an extension section has been raised to desired height, check to see that safety dogs or latches are engaged and that the extension rope is secured to a rung on the base section.
- Every ladder shall be equipped with a tie-off rope and nonskid safety feet.
- Every ladder shall be adequately tied off or held.
- Extension ladders shall be overlapped by a minimum of three rungs.
- Extension ladders shall not be taken apart and each section used separately.
- Do not work from the top three rungs of any extension or straight ladder.
- All ladders are to be secured 100% of the time when in use.

ENSURE THE AREAS TO THE BOTTOM AND TOP OF LADDER ARE FREE AND CLEAR OF ANY HAZARDS

Stepladders

- Set stepladders level on all four feet with spreaders locked in place.
- Do not use a stepladder as a straight ladder unless it is designed for this purpose. It must be fully extended and in a locked position before being used.
- Do not stand on the step below the top of any stepladder over three feet in height.
- Remove all tools and equipment from a ladder before moving it.
- Do not lean sideways (extended reach), when using a stepladder.
- Do not step off ladders for travel purposes.

Job-Built Ladders

All job-built ladders will be constructed for temporary use in accordance with OSHA Subpart-X and set up utilizing a height no more than 24 ft.; a 4:1 ratio, 3 ft above top landing; in good condition and secured to prevent swing.

Aerial Lifts & Scissor Lifts - MEWPS

Aerial Work Platforms have been renamed and are now called Mobile Elevating Work Platforms or MEWPs. Along with the new terminology for lifts is a new classification system. Previously, Aerial Work Platforms were classified by product type like scissor lifts, boom lifts, etc. MEWPs will now be classified into "groups" and subdivided into three "types."

MEWP Type is determined by whether the lift can travel when stowed or elevated and the location of the controls which allow such travel.

Type 1 MEWPs can only travel with the platform in a stowed position.

Type 2 MEWPs can travel elevated and is controlled from the chassis.
Type 3 MEWPs can travel elevated and is controlled from the platform. (Note: Type 2 and Type 3 MEWPs can be combined.)

MEWP Safe Use
A Safe Use Plan will be established for each specific MEWP. The plan should include worksite risk assessment to identify hazards, evaluate risk, create control measures, and communicate results with all affected employees. Other areas which must be covered include but are not limited to the following:

- Selection and use of the appropriate MEWP;
- An assessment of the support surface;
- Familiarization of the specific MEWP to be used;
- Monitoring of the work performance of the operator by a trained and qualified supervisor; and
- Requirements for documentation of records.

If you have not been appropriately trained on safe use and familiarization of the MEWP, please let your supervisor know. Person using MEWPs must be trained and authorized in the make/model. Training will be done by a "competent person."

- All users of equipment shall complete a pre-trip inspection form prior to use.
- MEWPs shall meet the applicable design and construction requirements of ANSI A92.2-2018. Field modifications will be certified in writing by the manufacturer or other equivalent entity as meeting applicable ANSI A92.2-2018 requirements.
- Lift controls will be tested each day prior to use to determine such controls are in safe working condition. Tests will include brakes and operating systems are in proper working condition.
- Control labels and manufacturer-applied warning labels will be maintained in legible condition.
- Minimum clearance of lift operation is at least 15 feet from power lines rated 50kV or less. Minimum clearance from lines rated over 50kV is 10 feet plus one-half inch for each 1kV over 50kV. As a general rule, 15 feet of clearance should be provided whenever possible.
- Safety harnesses/lanyards shall be worn as fall restraint and workers shall be tied off to the appropriate tie off points within the basket when in aerial (boom) lifts.
- Workers shall not tie off to an adjacent pole or structure while in an aerial lift.
- Workers shall cease operations during high wind speeds or gusts more than 22 MPH.
- All workers shall remain on the floor of the platform of aerial lifts and scissor lifts at all times. Exceptions for scissor lifts will only be considered when a fall arrest system is employed, and a written procedure is in place.
- Guard rails shall never be used to climb on, sit on, or support any platform used to gain height.
- All guardrails, chains and gates shall be secured on lifts before elevating.
- Observe the surrounding floor or ground surface for holes and depressions before operating or moving the lift. Lift will have an operating backup alarm audible over background noise levels or be

accompanied by a spotter when backing.
- Fully extend all outriggers on level ground before elevating as required by the manufacturer's instructions.
- Articulating (scissor) and extensible (boom) lifts shall have both upper and lower controls.
- All tools, supplies and materials will be carried inside the basket, not supported on the rails. If using a manufacturer-supplied attachment to carry materials outside the basket, the lift operator will meet all local and state licensing requirements before such use.
- Operator shall follow boom and basket load limits established by the manufacturer as indicated on equipment labels or posted in the operator's manual. Account for weight of all personnel, tools and materials when evaluating load limits.
- Do not exceed maximum weight capacity of lift.
- Do not exit while in an elevated position.

Scaffolding

All employees using scaffolds will be trained in associated hazards and controls before use. Employees engaged in scaffold erection or dismantling activities will be trained in associated hazards and controls. Training will be provided by qualified persons, and will cover fall protection, electrical safety, falling object protection, use and loading, and OSHA requirements.

Refresher training shall be provided when changes at the job site present new hazards or new equipment not previously covered, or where employee demonstrates a lack of understanding and has not retained requisite proficiency.
A competent person for scaffolds will be designated and present during erection and while in use.

Before work on a scaffold begins, and periodically while in use, it shall be inspected visually by the competent person to ascertain that:
- Where possible, all scaffolding work platforms will be accessible by use of a stair tower.
- All components are consistent with design.
- All components are in proper working order.
- All bracing is installed completely.
- All locking pins are in place at each joint.
- Base plates are present and properly secured.
- Top rails, mid rails, toe boards and end rails are in place.
- The decking is fully planked with scaffold grade planks or equivalent:
  Five planks for a working platform and a minimum of 18 inches (two planks) on outriggers.
- All wheels are locked if it is a mobile scaffold.

Unsafe or deficient equipment and conditions will be tagged out by the competent person and will not be used until corrected, and tag removed by the competent person.

Personnel shall wear fall arrest equipment and properly tie off on any scaffold platform, suspended scaffold, or sky climber over 6 feet in height that is not equipped with standard rails.

A hard hat must be worn when working on scaffolding, including any scaffold platform, suspended scaffold or sky climber.

Before operating a sky climber, personnel must read the "Operating Instructions" and follow all safety requirements including, but not limited to, being properly tied off and thoroughly inspecting the sky climber to determine that the cable is not worn, is the proper length and has a "stop" or thimble at the end.

No one shall ride on a rolling scaffold when it is being moved unless the floor is within 3 degrees of level and free of holes or obstructions and the wheels are equipped with resilient tires. All tools and material shall be removed from or secured on the deck before moving. Lock all wheels when not moving.

Personnel shall not climb on, or work from, any scaffold handrail, mid rail or brace member, but shall use ladders to access the scaffold. Some scaffolds are equipped with built-in ladders located in the *middle* of the frame.

All scaffolds shall be erected level and plumb on a firm base. Adequate mud sills or other rigid footing, capable of withstanding the maximum intended load must be provided. Tubular metal scaffolding ***requires*** metal base plates which must be secured to 2x10 inch wooden blocks or mud sills when used on surfaces other than concrete. Screw jacks (adjusting screws) shall not be extended more than 18 inches of thread. Concrete blocks, bricks, rocks, or other forms of unstable materials cannot be used to level scaffolding.

A scaffold shall be tied off or stabilized with outriggers when its height is more than three times the smaller dimension of its base.

Fixed scaffolds shall be tied off horizontally every 30 feet and vertically every 25 feet.

Where space permits, all scaffold platforms shall be equipped with standard 42-inch-high top rails rigidly secured (not wired), and standard 21-inch-high mid rails. The cross-bracing may be used as one of these rails depending on the position. (Chest high for top rail and knee high for mid rails). Scaffolds must be decked with scaffold-grade planks or manufactured scaffold decking and equipped with rigidly secured toe boards on all four sides. Decking planks shall be secured in place. Planks shall overhang end supports a minimum of 6 inches and a maximum of 12 inches. If for any reason the overhang is less than 6 inches, it must be cleated to prevent slippage.

The safe working loads on all scaffolds shall not be exceeded. Scaffolds should be able to support four times the weight of the intended load.

Rolling scaffolds shall be used only on stable, level, smooth surfaces or the wheels shall be contained in wooden or channel iron runners. Personnel shall watch for overhead clearance when moving a scaffold. Casters shall be pinned.

No scaffold member shall be altered by welding, burning, cutting, drilling, or bending. Bricks, tiles, blocks and similar material shall not be stacked higher than 24 inches on the scaffold deck.

No rigging shall be done from scaffold handrails, mid rails or braces.

Scaffolds under which personnel are to pass shall be provided with ½ inch mesh, No. 18-gauge wire screen or equivalent between the toe board and handrail.

Patented Metal Scaffolding
Parts and sections of scaffolding made by one manufacturer shall not be used with parts and sections made by another manufacturer.

Decking
Only planks that are stamped as OSHA-grade scaffold planks shall be used. Scaffolding planks shall be stored on dunnage separately from ordinary lumber. Scaffolding planks shall be used for scaffold

decking only.

Manufactured aluminum decking shall be used for scaffolds only. Maximum span of scaffold plank end supports shall not exceed 8 feet.

Rigging

Rigging is essential for moving construction material and equipment. At the same time, it keeps the load under control.

Check stability of loads before hoisting by lifting the load slightly and checking such load before continuing.

All crane and hoist hooks will have a safety latch in good working condition.

Do not swing loads over the heads of people in the area – keep them clear at all times. Use tag lines to control the load. If necessary, use two.

Never leave a suspended load unattended.

HARD HATS ARE ABSOLUTELY REQUIRED for ground personnel. Place warning signs under work area.

Cables, chains, or slings used for material handling will be inspected prior to use each day to ensure that they are safe. Defective equipment shall not be used.

Cables, chains, or slings, when not in use, shall be removed from the immediate work area so as not to present a hazard to employees.

Cables, chains, or slings that are to be used as a lifting device will be properly tagged and will not be loaded beyond their safe working load.

All synthetic slings in use will be protected from abrasions.

All components should have known capacities in excess of all weight loads.

- All rigging shall be performed by qualified persons.
- Custom fabricated rigging and lifting devices shall be designed by a qualified person (i.e., registered professional engineer or equivalent) and proof-tested to 125% of designated capacity (AMTRAK and other Contracts may differ).
- All rigging shall contain a clear label or tag that identifies maximum working capacity.

Fire Protection

When setting up heat-producing work, make sure that the area is clear of all fire hazards. Ensure that all potential sources of fire are eliminated.

Know where fire protection equipment is, determine its status and know how to use it. Except for actual

use, never remove such equipment.

Do not enter a confined space after a carbon dioxide extinguisher has been discharged, until the area has been vented and tested.

Know the classes of fire extinguishers and when they should be used:

Class A – Normal combustibles: paper, wood, etc. Use a water, soda-acid or multi-purpose extinguisher.

Class B – Oils and flammable liquids. Use carbon dioxide or dry chemical extinguishers.

Class C – Electrical equipment. Use carbon dioxide or dry chemical extinguishers. Class "ABC" extinguishers shall be on hand during all welding.

Fire extinguishers shall be visually inspected monthly and shall be subjected to an annual maintenance check.

Combustible materials (oil-soaked rags, paper, etc.) shall be kept in metal containers with metal lids.

Solvents shall be kept in approved, labeled containers.

Store all flammable liquids (gasoline, lacquer thinner, etc.) in a secure building away from all others. No more than five gallons, in a U.L. listed container, shall remain in any other building.

Adequate clearance will be kept around lighting and 10 feet around heating units.

"NO SMOKING, MATCHES OR OPEN FLAME" signs shall be always obeyed. Do not throw cigarette butts or matches into wastepaper cans.

Stairways, aisles and exits shall be kept clear of obstructions.

Storage sites shall be clear of combustible trash. Weeds and grass shall be kept down. Combustible material shall not be stored within ten feet of a building or structure.

Maximum pile height for combustible materials is 20 feet and a clearance of 10 feet must be maintained from buildings or structures.

Fire extinguishers and water drums shall be protected from freezing.

Obtain all permits from local fire departments prior to operations if necessary.

Electricity

All employees, qualified and nonqualified, shall be trained in hazard recognition of electrical hazards associated with their jobs. Training shall include identification of electrical hazards, clearance distances and the nature of potential injuries. Such training shall be documented and maintained for the duration of his employment, and shall include name, date of training, and nature of training completed.

Extreme caution is to be employed when working in the vicinity of power lines and electrical equipment.

All lines and parts are to be considered energized until proven otherwise.

Nonqualified persons will be located so that worker and the longest conductive object he/she may make contact with will never be closer than 15 feet for voltages at 50kV or below, and 15 feet plus 4 inches for each 10kV over 50kV. For voltages normally encountered in power lines, objects which do not have an insulating rating for the voltage involved are considered to be conductive.

Deenergized equipment and circuits will be locked out or tagged or both. Ladders with conductive side rails are not to be used around power lines.

To prevent injuries resulting from possible malfunctions, improper grounding and/or defective electrical tools, tools, cords, and power sources will be inspected daily and as needed to ensure that:

- When electricity is used, GFIs are always mandatory. GFIs will be tested by operating the Push-to-Test button and verifying that power has been removed. After pressing the Reset button, ensure power is restored.
- Electrical cords must be heavy duty and ground pins must be intact.
  - There is no **"daisy chaining"** of electrical cords allowed (plugging two cords into one another to allow for longer distance).
  - No electrical cord run longer than 100 ft. allowed.
- Electrical cord plugs must not be pulled away from the ends.
- Electrical cords must not be cut or damaged in any way.
- Two-wire or flat cords will not be allowed on any job site.
- Electrical tools must have a ground pin intact unless it is double insulated.
- Defective equipment will be tagged "Do Not Use" and removed from service until repaired or replaced.

AETNA BRIDGE Employees do not meet the criteria for "Qualified" persons and will not self-perform any work on or within the unsafe approach distances.

When working under power lines, the lines shall be deenergized and grounded or other protective measures such as guarding, isolating or insulating will be provided before work is started.

All personnel will not work on any live equipment. This could include temporary wiring feeds, after hours work or other engineering controls. No work is to be performed on or near any live electrical systems.

Aetna Bridge employees do not meet this criteria and will not self-perform EEW's.

Lockout/Tagout Procedures

Machinery and electrical equipment can be highly useful…and highly dangerous. Many serious injuries and fatalities occur each year because machines and electric equipment are not properly deenergized before workers attempt to maintain or repair them.

OSHA's standard for control of hazardous energy requires that employers maintain a program of lockout and tagout procedures to ensure that employees understand the serious hazards of such machines and equipment and that only specially trained and authorized employees are allowed to perform such procedures. **There will be no self-performance of any live electrical equipment/machinery.**

Lockout/Tagout Rules

Small Hand Tools Exception

This lockout/tagout program does not apply to work on cord and plug-connected equipment (small hand tools) for which exposure to the hazards of unexpected energization or start-up of the equipment is controlled by unplugging the equipment from its energy source, provided, however, that the plug is under the exclusive control of the employee performing the servicing or maintenance of such equipment. Even under this exception, however, only trained, and authorized employees may perform the service or maintenance work.

Hand Tools

All tools will be furnished by the Company and shall be maintained in good condition. Tools are subject to inspection at any time. Forepersons have the authority and responsibility to condemn unserviceable tools.

Defective tools shall be tagged or removed from work areas.

Always turn tagged tools into the shop for repair. Make sure you describe the problem on the back of the tag.

Guards shall be in place and operable at all times while the tool is in use. Guards will not be removed or rendered inoperable.

Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive or splashing objects, or exposed to hazardous dust, fumes, mists, vapors, or gases shall be provided with and use appropriate PPE necessary to protect them from the hazard.

Always use the proper tool for the job. Do not use makeshift or substitute tools. Do not use metal-handled tools on or near electrical wires.

Tools shall not be thrown; they shall be handed or put in buckets attached to hand lines for raising or lowering.

Do not leave tools on elevated surfaces.

Impact tools such as chisels and punches shall be dressed, repaired, or replaced as they become mushroomed.

Wrenches shall not be used when jaws are sprung to the point that slippage occurs. Never use a wrench as a hammer.

Always store sharp-edged tools properly. Put covers on them or store them in special compartments. Keep them sharp for safer cutting. Eye protection shall be used when sharpening tools.

Broken or loose wooden handles shall be replaced before further use. Do not tape them. Pick up tools not in use to prevent trip hazards.

Do not use compressed air for dusting off clothing. Do not point nozzles at people. The air itself, or

particles it picks up, can cause serious injury.
Couplings on compressed air lines shall have safety clips or be safely secured together to prevent the hose from lashing if the coupling should come undone.

Do not bring tools from home for work use. If you need a specific tool for the job, please request it from your supervisor.

Manual Handling or Lifting

Manual handling is defined as any activity requiring the use of force exerted by a person to lift, lower, push, pull, carry, or otherwise move, hold, or restrain any object. Most activities have a manual handling component, whether in an office environment, factory, construction site or at home.

Use of incorrect manual handling (including lifting) techniques can lead to injuries or illnesses including sprains and strains to muscles, tendons, ligaments, and joints; bruises, cuts, and fractures; cardiovascular (heart) strain such as increased blood pressure and muscular fatigue. These injuries are not confined to the back, although it is recognized that back injuries make up the majority.
Employees at all levels shall consider the best means to avoid manual handling risks. Design or engineering considerations may apply when purchasing equipment or supplies. Or the risk may be removed or reduced by use of lifting equipment such as dollies, hand trucks, lift-assist devices, jacks, carts, and hoists. As a general rule, use a buddy or mechanical assistance for heavy items.

- A risk assessment should be made before manually handling material. Consider size, bulk, and weight of the object(s): if mechanical equipment is required, if a two-person lift is required, whether vision is obscured while carrying, and the walking surface and path where the object is to be carried.
- When lifting, hold the item close to body with a straight back and lift with legs.
- Ask for help if something is too heavy, too large, or too long to handle alone and accept assistance when required (greater than 50 lbs).
- Order supplies in smaller loads which can be moved by workers according to their individual needs and capabilities.
- Ensure that workshop benches are adjustable or set up for the person using them to prevent prolonged bending when working with equipment, etc.
- Ensure that vehicles have ramps or hoists for loading and unloading heavy equipment where possible.
- Use hand carts when available. These can be useful for moving heavy and awkward loads such as large drums.
- Organize the storage area to ensure the most commonly used items are stored between thigh and chest height.
- Minimize the amount of lifting of larger items to 50 lbs. and not over eye level.
- Ensure that work areas and passageways are kept clean and clear of debris.

Musculoskeletal injuries caused by improper lifting must be investigated and documented in accordance with OSHA recordkeeping requirements. Incorporating investigation findings into work procedures will help prevent future injuries.

Supervisors must periodically evaluate work areas and employees' work techniques to assess the potential for and prevention of injuries. New operations should be evaluated to engineer out hazards before work processes are implemented. Employees observed using improper lifting techniques and/or improper lifting techniques and/or improper use of lifting aids may be subject to action under the Company's enforcement policy.

Housekeeping

Employees will be trained in the proper disposal methods for waste, including general instructions for nonhazardous wastes, trash, or scrap materials (proper PPE is always required): If training for hazardous material is needed, it will be specific to the nature of the waste, including any personal protective equipment required while handling, and documented disposition requirements.

Where possible, waste material should be segregated for purposes of reuse and recycling.

Containers will be designated and only the appropriate waste will be placed in any container.

All work areas, passageways and stairs shall be kept clean and free of hazards at all times.

Remove scrap and rubbish as soon as possible: it is everyone's responsibility to remove or bend down projecting nails or remove and safely discard.

All exposed protruding pieces will be safely covered, removed, and protected.

The amount of waste will be estimated in advance of the work to be performed. Ensure adequate capacity for containers and waste removal frequency to avoid buildup of materials.

Clean as you go, rather than waiting for a cleanup at the end of the work.

Waste materials will be stored and handled to minimize potential for a spill and to control the potential for run-off. Small spills will be promptly cleaned up with the use of spill kits readily available on site. Larger spills will be reported and handled by personnel with equipment and training to deal with them safely.

Flammable material shall be stored in fireproof containers.

Floors and walkways shall be kept free of grease, oil, water, weather and all other slip and trip hazards.

Where possible, tie all gas lines, welding leads, cords, etc., overhead to eliminate trip hazards. Do not let them rest on sharp surfaces or where a heavy door might shut and slice them.

Cell Phone Policy

It is Aetna Bridge Company's philosophy that any action that distracts from driving is unsafe and will not be tolerated.

All cell phone use (hand-held or hands-free) while driving a commercial motor vehicle is dangerous and should be avoided at all times. In addition, Federal Regulation 49 C.F.R. § 392.82 of the Federal Motor Carrier Safety Administration specifically prohibits the use of a hand-held mobile telephone.

It is the policy of the Company that drivers shall abide by all federal and state regulations and laws concerning cell phone use including the regulation that bans the use of a hand-held mobile telephone while driving on the job.

Aetna Bridge Company is specifically prohibited from requiring or allowing its drivers of commercial

motor (CMV) vehicles to use hand-held telephones under penalty of law. Thus, this Company shall not allow or require its drivers to use a hand-held mobile telephone while driving a CMV.

Drivers who violate this policy will be subject to Company discipline in addition to any state or federal imposed penalties. Furthermore, drivers employed by this Company, who are cited for violating the federal regulation, will face federal civil penalties of up to $2,750 for each offense and disqualification from operating a commercial motor vehicle for multiple offenses.

In addition, the state Department of Motor Vehicles (DMV) will suspend a driver's commercial driver's license (CDL) after two or more serious traffic violations. Commercial truck and bus companies that allow their drivers to use hand-held cell phones while driving will face a maximum penalty of $11,000.

For the purpose of this policy only, driving means operating a commercial motor vehicle on a highway, including while stationary because of traffic, a traffic control device, or other momentary delays. Driving does not include operating a commercial motor vehicle when the driver has moved the vehicle to the side of, or off, a highway and has stopped in a location where the vehicle can safely remain stationary.

Using a hand-held mobile telephone is permissible by drivers of a CMV when necessary to communicate with law enforcement officials or other emergency services.

Excavating & Trenching

SUPERINTENDENT WILL CALL DIG SAFE PRIOR TO ANY EXCAVATING.
IN RI AND MA, CALL: 811 or 1.888.DIG.SAFE (1.888.344.7233) – 3 days prior to activity.
IN CT, CALL: 811 or 1.800.922.4455 – 3 days prior to activity.

No excavation shall take place during this 3-day period. Representatives of nonparticipating utilities shall also be contacted.

Prior to any excavating, efforts shall be made to determine if there are underground utilities in the area and, if so, they shall be located and protected during excavation operations. Requests for utility location markings will be made at least 72 hours (excluding weekends and holidays) before work will begin.

If a Dig Safe request to locate underground utilities cannot be completed or cannot establish an accurate location, it is permitted to proceed with caution after using detection equipment or other acceptable means to locate underground utilities.

When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means.

Employees exposed to public vehicular traffic or onsite mobile equipment shall wear safety vests or other suitable garments made of reflectorized or high-visibility material. Class 3 garments will be used for daytime work and nighttime work.

Trees, boulders, and other items on the surface which may cause or create a hazard shall be removed prior to the start of excavation.

No employee shall be permitted beneath a load handled by lifting or digging equipment. Employees will stand away from the sides of trucks being loaded or unloaded to avoid being struck by any falling material.

When equipment is operating near the edge of an excavation and the operator does not have a clear and direct view of the edge, a warning system shall be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

Where potentially oxygen-deficient or hazardous atmosphere may exist, or could be reasonably expected to exist, the atmosphere will be tested in excavations more than four (4) feet deep. Adequate precautions, including respiratory protection or ventilation, shall be taken prior to employees entering the excavation.

No employee will be permitted to enter an excavation when the atmosphere contains a concentration of flammable gas more than 10% of the lower flammability limit of that gas. Atmosphere testing shall be conducted as often as necessary to ensure that the atmosphere remains safe.

An “OSHA-Competent” person shall be present at all times for excavations greater than four feet deep, if open, and employees are working in it.

Trenches greater than four feet deep shall have ramps, ladders or steps located so as to require no more than twenty-five feet of lateral travel.

All excavations will be considered as existing in Class C soil. Benched excavations will not be made.

The walls and faces of all excavations and trenches greater than four feet deep, in which employees are exposed to danger from moving ground shall be guarded by a shoring system, shielding, sloping of the ground, or some other equivalent means, as determined by the Superintendent or Foreperson of the job site.

The sides of trenches in hard or compact soil, including embankments, shall be shored or otherwise supported when the trench is greater than four feet deep and eight feet or more in length. In lieu of shoring the sides of a trench above the four-foot level, it may be sloped to preclude collapse, but the rise shall not be steeper than one foot vertical to each one-and-one-half foot horizontal.

Emergency rescue equipment, such as breathing apparatus, a safety harness and line, or a basket stretcher, shall be readily available where hazardous atmospheric conditions exist or may reasonably be expected to develop during work in an excavation. This equipment shall be attended when in use.

Water shall not be allowed to accumulate in an excavation. Equipment to remove water shall be monitored by a competent person for proper operation.

Measures to divert surface water, such as drainage ditches or dikes, shall be used to prevent water from entering the excavation. Excavations subject to runoff from heavy rains must be inspected by a competent person before work resumes.

Where the stability of adjacent structures could be undermined by an excavation, shoring, bracing or underpinning shall be used to ensure the stability of the structure to protect employees.

Excavating below the level of the base or footing of a foundation or retaining wall that could pose a hazard to employees shall not be permitted, unless a support system ensures the safety of employees and stability of the structure, or an excavation plan has been approved by a registered professional engineer.

Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face.

In cases where employees may be required to enter an excavation, materials shall be effectively stored and retained at least two feet or more from the edge of the excavation.

Daily excavation inspections shall be made by an OSHA-Competent person, to include the excavation, the surrounding area, and protective systems. Inspections will be made prior to the start of work, and as needed throughout the shift.

If there is evidence of possible cave-in, failure of protective systems, hazardous atmosphere or other hazardous condition, all work in the excavation shall cease immediately. Work may resume only when the competent person has determined all necessary precautions have been taken to safeguard the employees.

Walkways shall be provided where employees are permitted or required to cross over excavations. Suitable guardrails will be provided for the walkway when the height is more than 6 feet above the lower level.

Any and all persons entering or working in an excavation or trench are required to wear a hard hat.

Face & Eye Protection

100% Eye protection is required while on any Aetna Bridge jobsite.

Safety glasses shall meet criteria of ANSI Z.87.1. Prescription glasses must also meet this requirement.

Additional and appropriate face protection shall be worn where an extreme hazard from falling or sparking particles, such as cutting into metal, and/or where danger of a splash or drips of chemicals and/or moisture exists.

Face shields (grinding shields) shall be worn, in addition to safety glasses and a shall be used when introducing a sharp tool to metal, such as, but not limited to: wire-brushing, deburring, grinding, etc., and where a large amount of particles are produced or where there is a possibility of a breeze.

Welders shall wear safety eye protection listed under Aetna Bridge's Guide for Welding Shades to ensure proper protection from flying particles and to protect eyes when chipping slag and dressing welds.

Clean hats, hair and clothing **before** removing eye protection to prevent foreign objects from entering the eye, and unmetered compressed air above 30PSI is never allowed to blow off clothing, hair, face, etc.
Face and eye protection shall be kept clean at all times.

Safety eye protection or face shields that are broken, cracked or have optical defects will not be used and will be discarded accordingly.

Contact Lenses

Contacts may be worn on the job in combination with appropriate eye protection, except where there is a likelihood of injury from heat, chemical splashes, highly particulate atmospheric conditions or where regulations prohibit their use.

Employees whose vision can be increased by wearing contacts, as opposed to glasses, should wear contacts. If an employee wears glasses, then those are expected to meet the ANSI Z.87.1 standard and if they do not, they're required to wear protective Safety Eye protection; "Over the Glasses, glasses" for their protection.

Employees should keep a spare set of contacts or prescription glasses on the job to avoid inability to function due to the loss of a contact lens while working.

Employees who wear contact lenses should let co-workers know in the event of an injury to the eye. Remember that a contact is a foreign body in the eye. Dust and fumes may get behind the lens and cause discomfort or damage to the eye.

Eye Protection for Welding & Cutting

All welders shall wear approved welding helmets or pipe shields, in good condition, with appropriate shade lens in place. Cover lenses and gaskets shall be in place and in good condition.

Welders shall wear safety eye protection to protect eyes when the helmet is tipped up for viewing and dressing the weld.

Burning goggles with an appropriate shade lens shall be worn while using the oxyacetylene torch.

When two or more welders are exposed to each other's arc, filter lens goggles shall be worn under welding helmets and a welding barrier should be used.

NOTE: A guide has been provided on the next page to assist in selecting the appropriate shade lens for different welding methods.

Guide for Welding Shades

Welding operation	Shade number
Shielded metal-arc welding 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	10
Gas-shielded arc welding (nonferrous) 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	11
Gas-shielded arc welding (ferrous) 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	12
Shielded metal-arc welding 3/16-, 7/32-, 1/4-inch diameter electrodes	12
5/16-, 3/8-inch diameter electrodes	14
Atomic hydrogen welding	10-14
Carbon-arc welding	14
Soldering	2
Torch brazing	3 or 4
Light cutting, up to 1 inch	3 or 4
Medium cutting, 1 inch to 6 inches	4 or 5
Heavy cutting, over 6 inches	5 or 6
Gas welding (light), up to 1/8-inch	4 or 5
Gas welding (medium), 1/8-inch to 1/2-inch	5 or 6
Gas welding (heavy), over 1/2-inch	6 or 8

(*From OSHA 1926-102(c)(1) eye and face protection)*

Welding & Cutting

Before welding or cutting begins, the work area shall be inspected by the person responsible for authorizing such work. In granting authority to proceed, designated safety precautions will be followed. A written hot work permit and authorization shall be used.

When welding or cutting an elevated spot, prevent sparks and slag from hitting people and objects below. Put up warning signs and clear the area of flammable material.

An appropriate rated fire extinguisher must be in the immediate work area.

When working at ground level, sweep away all flammable material in a reasonable radius of the welding or cutting operation.

If the object to be welded cannot readily be moved, all movable fire hazards shall be moved to a safe place, and guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards. If immovable fire hazards cannot be protected, the welding or cutting activity is not permitted.

A designated fire watch trained in the use of fire extinguishing equipment and familiar with the means to sound an alarm in the event of a fire, will be used in any location where other than a minor fire could occur, or where appreciable combustible material is closer than 35 feet from the operation. If appreciable combustible material is more than 35 feet away, but could easily be ignited by sparks, or are exposed by wall or floor openings, then a trained fire watch will be used. The fire watch will be maintained for at least 30 minutes after completion of welding or cutting operations.

Fire protection equipment shall be maintained in close proximity to any welding or cutting operation and shall be immediately available to the fire watch.

Class "ABC" fire extinguishers shall be used. Fire extinguishers shall be visually checked for proper serviceable condition.

Welders and their supervisors will be trained in safe operation of the equipment and safe use of the process. Workers assigned to operate and maintain arc welding equipment must be familiar with requirements in General Requirements – 1910.252(a), (b) and (c), and in arc welding and cutting – 1910.254 and 1926.351. If gas shielded arc welding is done, they must also be familiar with American Welding Society Standard A6-1-1966.

Welding and cutting equipment will be inspected before use. Defective equipment will be removed from service until repaired. Such repairs shall only be made by a qualified person.

Do not operate in areas where dust or gases present an explosion hazard, until the area has been adequately vented. Proper ventilation or respiratory protection is required before welding, cutting, or burning materials or coatings containing lead, zinc, cadmium, mercury, beryllium or other exotic metals or paints.

- Welders and assistants shall not carry matches or lighters anywhere on their person. Butane lighters are highly explosive.
- Thoroughly clean and decontaminate drums, barrels, etc., that could have held explosive or flammable material. Do not open with a torch.
- Welders shall wear leak-proof helmets to prevent flash burns. They shall also use the appropriate grade filter lenses.
- Adequate eye protection shall be worn when grinding and dressing the weld.
- Appropriate protective gloves and proper clothing are also to be worn.
- Welders' assistants are required to wear safety eye protection with side shields for protection from flash burn.
- Welding leads and gas hoses shall be secured overhead to eliminate trip hazards, whenever possible.
- Gas cylinders shall be secured on a cart in an upright position when in use and during movement.
- When work is finished and/or cylinders are empty or must be moved, the cylinder valve shall be closed.
- Turn welding machines off when not in use or unattended.
- Defective welding leads shall not be used. Tag them for repair and inform the foreperson.
- Ensure all electrical connections are mechanically strong.
- Hot electrode holders shall not be dipped in water.
- All welders must wear safety-toed leather boots that cover the ankle, and nonflammable clothing.
- Flashback arrestors must be used on all torches.

- All cylinders must be stored in cages.

Hazardous/Hot Work Policy

Scope/Purpose
Hazardous Work Permits are required for operations which may present or have the potential to create a serious safety hazard. This procedure defines the operations requiring Hazardous Work Permits (HWP) and establishes the requirements for issuing and using Hazardous Work Permits. HWP's can be issued by Supervisor.

Examples of the types of operations that require Hazardous Work Permits include:
- Welding, burning and the use of any open flame. Some areas (permanent maintenance shops and new construction sites) may be exempt from the requirement for hot work permits.
- Work on any system (lines, pumps, vessels, etc.) that contains or has recently contained any hazardous substance.
- Work on any steam, condensate, or hot water system.
- Soldering and lead caulking if an open flame is used.
- Chipping, grinding and power wire brushing.
- Maintenance work in a hazardous area.
- Use of nonexplosion-proof power tools in a potentially hazardous area.
- Any electrical hot work (working on energized electrical lines, breakers, transformers, equipment, etc.).
- Demolition of walls, hard ceilings, or floors in occupied buildings.

Definitions
Explosion-Proof equipment (outlet, motor, hand tool, etc.) is designed and constructed so all spark-producing components are sealed to prevent the ignition of flammable gases or vapors.

Ground Fault Circuit Interrupter (GFCI) is a device that will break an electrical circuit if a ground occurs during its use. A properly functioning GFCI will prevent a person from receiving an electrical shock should a ground occur.

Hazardous Area is an area that contains a flammable concentration of gasses or vapors or has the potential to develop such a concentration.

Hazardous Operation is one that has the potential to endanger either the worker, the building or any person or persons who may be in the area or building during such work.

Hot Work is any work that produces or has the potential to produce a spark or open flame (welding, burning, grinding, etc.).

Lower Explosive Level (LEL) is the lowest concentration of a gas or vapor in air which will burn if an ignition source is introduced. An LEL concentration of no more than 5% may be present when performing hot work.

Permit Issuer must be a competent and trained employee or a project superintendent.

Trained Fire Watch is a person who has been trained by his/her employer or other competent person on the different classes of fires and how to utilize the proper equipment and procedures in extinguishing them.

Responsibilities
If it is determined that a Hazardous Work Permit is required, the Permit Issuer is responsible for properly issuing the permit.

The persons using the Hazardous Work Permit must comply with the requirement of this procedure and the precautions described on the permit.

Procedure
The Permit Issuer (in association with project management) must determine if a Hazardous Work Permit is required before starting any job. This may require discussing the planned work with personnel responsible for the area to ensure that everyone is aware of the potential hazards.

The Permit Issuer will review the planned work, *inspect the job site,* and issue the permit *before starting the job*. The permit must clearly indicate the area, room, or section of the building that it intends to cover. Each employee performing work covered by the permit must read and sign it. Any employees who begin working after the permit has been issued must also read and sign the permit before beginning work.

After the permit has been completed and signed by each employee utilizing the permit, the original must be posted at the work site. The Hazardous Work Permit is only valid for the duration of the issuers' workday, not to exceed twenty-four hours.

If hot work is to be performed in a hazardous area, the Permit Issuer or competent designee will conduct an explosive meter test (minimum 25-foot radius around work area). If the lower explosive level (LEL) is above 5%, work will not be permitted. When a job involves welding, burning, or the use of an open flame, the issuer of the permit will inspect the area before beginning the job to determine if any potential fire hazards are present. The issuer will determine if flame-retarding blankets are required and, if required, ensure they are properly installed. A trained fire watch must be assigned to all hot work jobs and must sign the permit.

Should the shift change, the oncoming Permit Issuer should inspect the area; after inspection of the area, make out and sign a new permit.

If a job is discontinued (other than normal breaks), a new permit must be issued before continuing the job.

Upon Job Completion
The person who was issued the permit will notify the person who issued the permit when all work has been completed.

The original permit is returned to the issuer and all applicable personnel are notified of work completion.

After completion of a job involving welding, burning or the use of an open flame, the fire watch will be maintained for an additional thirty minutes after completion of work. It is the responsibility of the permit issuer to see that the area is inspected. This inspection will ensure that no potential fire hazards are present.

All completed permits will be kept on file at the main office.

Hot/Hazardous Work Permit

DATE_____ WORKER'S NAME_____

SHIFT_____ BADGE #_____

WORK LOCATION_____

NATURE OF HAZARD

(CHECK APPROPRIATE LINE)

_____NEAR GAS LINES

_____NEAR LUBE OIL LINES

_____NEAR LUBE OIL TANK

_____NEAR FUEL OIL LINES

_____CARDBOARD CONTAINERS

_____OTHER (Specify):_____

SAFEGUARDS IN USE **(CHECK APPROPRIATE LINE)**

_____BLANKETS

_____WELDING SCREEN

_____FIRE EXTINGUISHER

_____FIRE WATCH

_____OTHER (Specify):_____

I certify that the above work area has been examined by me and the cutting, welding, brazing, or grinding work will be a safe operation performed in accordance with the Hot Work Authorization Procedure and all Safety Tagging procedures have been followed.

SIGNED_____ (Startup shift engineer or superintendent)
(Work supervisor)

APPROVED_____

DATE_____ DATE_____

NOTE: THIS AUTHORIZATION IS ONLY GIVEN FOR THE CURRENT WORK SHIFT UNLESS OTHERWISE INDICATED.

Confined Space

General
While general safety procedures must be applied to all confined spaces, there are particular procedures that apply only to ***permit-required confined spaces***. These require additional safety precautions as they may contain certain additional hazards, e.g., toxic atmosphere, possibility of engulfment or asphyxiation or other serious safety or health hazards. This procedure covers all the necessary requirements to safely enter and work in a permit-required confined space.

Policy
No person, employee, or visitor shall enter a Permit-Required Confined Space until the safety requirements of this Confined Space Entry Program are met. For ease of communication in this procedure, confined space will mean permit-required confined space.

Purpose
The purpose of this program is to establish the requirements necessary to assure the well-being and safety of employees who are assigned to work in a confined space.

Scope
This program applies to all employees of Aetna Bridge.

Responsibility
Implementation by an experienced and competent person.

All personnel who are involved with confined space operations (entrant, attendant, and entry supervisor) must be familiar with this safety procedure and have received proper training.

All employees involved with confined space entry operations (such as new installations, repairs, replacement, cleaning, and inspections), are responsible for understanding and complying with the requirement of this procedure.

The entry supervisor is responsible for authorizing the confined space entry permit (CSEP) and the personnel entering the confined space.

Definition
Attendant
The person stationed outside the confined space that monitors the authorized entrants and performs all duties assigned by this policy.

Authorized Entrant
An individual authorized by this policy and adequately trained to safely enter a confined space.

Entry
The act by which a person passes through an opening into any permit-required confined space. The person entering a confined space is considered to have entered as soon as any part of the entrant's body breaks the plane of opening into the space.

Entry Supervisor
The person responsible for determining if acceptable entry conditions are present in the confined space, authorizing entry, overseeing entry operations, and terminating entry as required by this policy.

Hazardous Atmosphere
An atmosphere that may expose employees to the risk of death, incapacitation, impairment to self-rescue, injury, or acute illness from one or more of the following:
- Oxygen concentration below 19.5 percent or above 23.5 percent
- Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit
- Airborne dust at a concentration that meets or exceeds its lower flammable limit
- Any other atmospheric condition that is immediately dangerous to life or health

Permit-Required Confined Space
An area that has limited or restricted means for entry or exit (some examples are tanks, vessels, storage bins, vaults, pits, and diked areas), is not designed for continuous employee occupancy, is large enough to work in and has one or more of the following:
- Contains or has the potential to contain a hazardous or toxic atmosphere (e.g., tanks, pits, dikes, sewers)
- Contains a material with the potential for engulfment of an entrant (e.g., liquids or finely divided solids) which could cause drowning or suffocation
- 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 (e.g., storage bins or silos)
- Contains any other recognized serious safety hazard (i.e., electrical, mechanical and radiation)

Toxic Atmosphere
Atmospheric concentration of any substance that exceeds one of the following exposure limits:
- Permissible Exposure Limit (PEL) published by OSHA
- Threshold Limit Value (TLV) published by the American Conference of Governmental Hygienists (ACGIH)

Confined Space Preparation
Requirements for entering a confined space include:

A confined space entry must not occur until the confined space is completely isolated (a Confined Space Permit Modification (CSPM) can give exemption to complete isolation requirement), cleaned and cleared of all recognized serious safety hazards.

A Confined Space Permit must be approved by the Entry Supervisor.

A sign stating "**Danger - Permit-Required Confined Space, Do Not Enter**" must be posted at all accessible entry points. Signs must remain in place while the space is physically open (accessible) to employees and visitors.

The atmosphere within the confined space must be tested for the following conditions with a calibrated direct reading instrument. The test must be done in the order listed below.
- Oxygen content (within 19.5 to 23.5%)
- Flammable gases and vapors (below 10% LEL)
- Toxic air atmosphere (below the contaminant's exposure limit), any suspected or known contaminants are to be tested.

Confined space entry shall not be allowed if:
- The oxygen content is below 19.5 or above 21.5%;
- There is more than 10 percent LEL reading; or
- Any toxic concentration that exceeds any listed exposure limit.

Test of confined space atmospheres must be conducted by persons knowledgeable in the operation of the direct reading instrument to be used.

At least one audible alarm type oxygen and combustible gas analyzer shall be located in the confined space for continuous monitoring. If the work prevents keeping the analyzer inside the confined space (e.g.., hydro blasting), periodic checks of the atmosphere shall be made. Other hazardous or toxic atmospheric readings should be taken periodically as deemed appropriate by the Entry Supervisor.

Confined spaces may be entered without respiratory protection if:
- Contaminant levels are less than 50% of the lowest exposure limit;
- Oxygen level above 19.5%;
- LEL below 10%; or
- Continuous forced air ventilation or natural ventilation is sufficient to maintain those levels.

If the confined space has only one opening, air should be directed into the vessel with a flexible airline through a blower or air turbine. Access cannot be restricted.

If the confined space has more than one opening, air may be exhausted from the space, providing this method will completely flush the space.

Nitrogen or other inert gases must not be used or introduced into a confined space.

Retrieval systems shall be used whenever any person enters a confined space. A full body harness must be worn by all persons entering the confined space with a retrieval line attached to the entrant's back near shoulder level or above the entrant's head. If the retrieval equipment would increase the overall risk or would not contribute to the rescue of the entrant an exception may be granted by the Entry Supervisor. Even if a retrieval line will not be used, it is strongly recommended that the entrants wear a body harness. The harness will simplify rescue operations should they be necessary.

Work Activity in the Permit Required Confined Space
A trained attendant must be stationed at the confined space opening throughout entry operations.

The attendant must be able to communicate with the authorized entrants as necessary to monitor entrant status and alert the entrants for the need to evacuate should the situation arise.

The attendant must be provided with the means to summon help if necessary (i.e., a nearby phone or radio). Under no circumstances shall the attendant enter the confined space. He/she should begin rescue attempts using nonentry rescue equipment from outside of the confined space.

The use of welding, grinding, drilling or other spark-producing procedures are not permitted in a confined space until a "Hazardous Work Permit" is obtained. All gas welding or burning torches and hoses must be removed completely from inside a confined space when not in use. Gas cylinders must be located outside the confined space.

The right tools must be used for any job in a confined space. Extension cords and portable electrical equipment must be protected with a ground fault interrupter located outside the confined space to prevent personal injury. Drop lights must be low voltage (12 volt) lights.

Required protective clothing (gloves, goggles, boots, hard hats, etc.) must be specified on the Confined Space Entry Permit by the Entry Supervisor.
Good housekeeping must be maintained around any opening to facilitate access, egress, or emergency rescue work.

An entry will not be authorized if conditions near the confined space could make the space hazardous or

interfere with rescue if there is an emergency. If such conditions should develop during entry the confined space must be evacuated.

The temperature of any confined space must be considered when determining appropriate protective measures. Special protective measures such as cooling vests or restricted work periods may be required to prevent heat stress to entrants.

Breathing air systems used for confined space entry shall be clean, the correct system for the particular application/environment, and in good working order.

Positive pressure ventilation systems will be used in confined spaces if natural ventilation is not sufficient. Where flammable vapors may be present, explosion-proof exhaust is required.

Appropriate fire extinguishing equipment shall be maintained near the confined space entrance.

Permit

A Confined Space Entry Permit must be completed before entry to ensure that the above minimum requirements are met.

Each requirement on the Confined Space Entry Permit must be evaluated by the Entry Supervisor before authorizing entry into any confined space.

Each worker to enter the confined space shall also check the permit to his/her satisfaction and sign the permit before entering the confined space.

The attendant is required to sign the permit before entry into the confined space is authorized. The attendant must record the monitoring results of any known or suspected contaminants every two hours in the appropriate box on the permit.

The permit is valid only for the shift of the authorizing Entry Supervisor. If any change in conditions is suspected by any member of the entry team, work must be stopped, and all persons removed from the confined space. Such stoppage invalidates the permit and requires that the confined space be reassessed before reentering the space. If conditions have not changed the permit must be initialed or signed by the Entry Supervisor before work resumes. If conditions have changed, the Confined Space Entry Permit must be reissued by the Entry Supervisor when conditions for entry become acceptable.

When the Confined Space Entry work must continue beyond one shift, a new permit must be completed at the beginning of each shift by the new Entry Supervisor.

The copy of the approved permit must be clearly posted at the confined space entry location.

A duplicate copy of the completed (expired) permit must be sent to the Main Office. Upon completion of the work the original permit shall be retained for at least 1 year.

Any problems encountered during entry operations shall be noted on or attached to the permit.

Application for an exception must be made in writing by submitting a Confined Space Permit Modification (CSPM). The CSPM must state why the required procedural steps need modification, what type of work will be performed while using the CSPM and what steps are being taken to ensure the entrant's safety. CSPM shall be attached to the original permit.

Contractors

All contractors who perform work that will involve entry into a confined space shall be apprised of the following by the Entry Supervisor:

- Hazards which have been identified and the reason the space has been classified as a permit-required confined space
- Precautions and procedures that have been implemented for the protection of employees in or near the confined space where contract personnel will be working

The contractor shall be debriefed by the Entry Supervisor at the conclusion of the entry operations and will cover this confined space program and any hazards confronted or created during the entry operations.

Permit Program Review

The Confined Space Program will be reviewed annually. This will be accomplished by reviewing completed permits.

Confined Space Entry System

A Confined Space Entry System will be used during confined space entry. Additional equipment, such as mechanical blowers, gas analyzers and chemical protective clothing is maintained by the responsible attendant. The following requirements shall apply to the Confined Space Entry System.

The maintenance, cleaning, storage, and overall condition of the Confined Space Entry System, including contents, shall be the responsibility of everyone using it.

The Confined Space Entry System shall be kept secured when not in use. The key shall be kept in the supervisor's office.

Confined Space Entry System must be onsite prior to anyone entering a confined space.

Training - General Requirements

Personnel responsible for supervising, planning, entering, or participating in confined space entry and rescue shall be adequately trained in their functional duties before any confined space entry. Training shall include the following:

- The definition of a permit required confined space.
- Potential safety and health hazards involved.
- Atmospheric testing of the confined space. This shall include field calibration and contaminants that should be tested for.
- Confined space cleaning and purging methods.
- Ventilation of the space by mechanical methods to reduce and/or eliminate hazardous toxic atmosphere.
- Isolation and lockout of the confined space.
- Safety equipment and clothing.
- Role of the attendant, entrant, and entry supervisor.
- Communication systems and emergency signals.
- How to report emergencies and initiate nonentry rescue.
- Permit system.

Note: All company personnel shall be made aware of these requirements regarding confined spaces.

Checklist/Permit

All personnel who are involved with confined space operations (entrant, attendant, and entry supervisor) must be familiar with this safety procedure and have received proper training. Listed below are some general reminders to assist with the Confined Space Entry Procedure:

- All entering personnel must be signed into the permit by Attendee
- Attendee must have NO OTHER Roles other than monitoring employees

- A new form must be issued at the change of each shift
- Continual atmospheric monitoring and recording of results is required
- If entering a manhole outside you must monitor continuously
- Personnel must exit the Confined Space at the sounding of an alarm or when notified by radio and must not return until all clear has been given.
- A trained Confined Space Attendant must be present always.
- A permit must always be posted at the job site.

THE PERMIT REQUIRED FOR CONFINED SPACE ENTRY IS FOUND ON PAGE 115

Compressed Gases

- Gas cylinders shall not be rolled, dropped, or jarred.
- The valve cap or protective device shall be employed at all times except when the cylinder is in actual use.
- Cylinders shall be stored in a well-protected, well-ventilated, dry location, at least 20 feet from highly combustible materials.
- Cylinders shall not be handled or lifted by the valve cap.
- The contents of the cylinder shall be clearly marked.
- Cylinders shall be secured in an upright position and shall be secured with hardware chain or #9 wire. Twenty feet shall separate different gases.
- A fire cart shall be used when gases are in use.
- Oxygen cylinders shall be stored apart from other tanks by at least twenty feet.
- Leaking tanks shall be removed to an open area immediately.
- Do not force connections that do not fit.
- There shall be no oil, grease or other foreign matter on valves, regulators, etc.
  - Flashback arresters shall be used.
- Empty cylinders shall be marked "MT" and stored away from those that are full.
- Oxygen or acetylene cylinders shall not be taken into confined spaces.
- Oxygen or acetylene cylinders shall be kept far enough away from the welding or cutting operation so that sparks and hot slag will not reach them.
- Cylinder valves should be opened slowly to prevent damage to regulators.
- Nothing should be placed on top of gas cylinders.
- Gases will not be used straight from a cylinder but will pass through a regulator.
- Torches shall be inspected daily for defects. Defective equipment shall not be used.
- Torches will be lit with friction lighters and not by matches or other hot work.
- Oxygen will not be used for blowing dust from the body or clothing of any person, nor will it be used for ventilation purposes.

Respirator Use

Exposure to toxic gases, vapors, fumes, dusts, and mists are to be kept to a minimum. No employee is permitted to enter an IDLH (Immediate Danger to Life and Health) environment without evaluation and clearance by the Safety Director.

Employees required to use respirators will undergo medical clearance evaluation prior to respirator fit-testing.

Employees will be trained in maintenance and storage of respirators, inspection, and cleaning

requirements.

Respirators will not be removed for maintenance, cleaning, or adjustment in the same area where they are worn for protection. If breakthrough or resistance is detected, employees will leave the area before changing cartridges or performing other maintenance.

Whenever possible, administrative, and engineering controls such as ventilation will be implemented before allowing anyone to work in an area where toxic gases, vapors, fumes, dusts, and mists are present.

Respirators will be worn by all personnel engaged in grinding, sanding, drilling or other operations when dust is manufactured or raised.

Respirators with appropriate cartridges will be worn by all personnel involved in spray painting.

Respirators with appropriate cartridges will be utilized at any time that harmful gases, vapors, and mists are produced or present in the work area and adequate ventilation is not present. Employees wearing respirators should not remove them until the atmosphere is clear.

Any exhaust systems in operation should be left on after the work is completed, in order to ensure the removal of harmful elements.

Previously used respirators shall be cleaned and disinfected before use by another employee.

A respirator or dust mask cannot be worn if an employee has facial hair that interferes with a tight seal.

Employees can voluntarily use a dust mask in place of a respirator when working with or around nuisance dusts. *** See Respiratory Protection section in this manual.**

Cranes & Hoists

All operators shall be instructed in and qualified for each type of crane he/she is to operate. Qualification shall be by written (or oral) and practical operating examination unless the operator is licensed by a state agency for the particular type of crane or hoist. Valid certification is required prior to any crane operation. The manufacturer's specifications and limitations will be followed at all times.

Refresher training will be conducted in conjunction with local, state or federal requirements, or sooner in the case of unsafe operation or changes in the equipment or the workplace. In addition to equipment operation, training will include topic of fire protection and general principles of fire extinguisher use. Equipment must be inspected by a competent person before each use and documented. Any malfunctions, defective parts or breakdowns will be corrected before use. Documentation must include the following: all items checked, results of inspection, and name and signature of the inspector. Documentation must be retained for 3 months. (Documented monthly inspection not required if the daily inspection is documented and records are retained for 3 months.)

All operators will complete a daily written inspection, with both the crane information and jobsite details; this is to be signed by the competent person and submitted before each shift to the site supervisor.

Rated load capacities, recommended operating speeds and special hazard warnings, or instructions shall be posted on all equipment and be visible to the operator.

A thorough, annual inspection will be conducted by a competent person, or an agency recognized by the

U.S. Dept. of Labor to ensure the crane is in good condition. This record shall be maintained with the dates and results of inspections. Any deficiencies will be immediately corrected and recorded.

The manufacturer's procedures and prohibitions must be complied with when assembling and disassembling equipment. The assembly/disassembly of equipment must be directed by a competent and qualified person for the jobsite.

A preoperation hazard assessment will be performed to identify the work zone and determine if any part of the equipment, load line, rigging or load could reach closer than 15 feet to a power line, except where they have been deenergized and visibly grounded. Use of a dedicated spotter, proximity warning device, range control warning device, movement range limiter, or elevated warning line or barricade may be used to ensure minimum clearance requirements are met. Although it is the OSHA standard to allow 10ft allowance, we restrict the distance to 15ft. Voltage of power line and minimum approach distance must be established before work commences.

Minimum clearance distance shall be maintained under all circumstances:

up to 50 kV	15 feet (Aetna Bridge Policy)
over 50 kV to 200 kV	15 feet
over 200 kV to 350 kV	20 feet
over 350 kV to 500 kV	25 feet
over 500 kV to 750 kV	35 feet
over 750 kV to 1,000 kV	45 feet

over 1,000 kV (as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution).

A competent person must conduct a visual inspection of equipment prior to each shift. The inspection must consist of observation for apparent deficiencies. Some of the inspection items include control mechanisms, pressurized lines, hooks and latches, wire rope, electrical apparatus, tires (when used), and ground conditions.

Safety devices are required to be on all equipment and must be in proper working order before operations begin. If any of the devices are not in proper working order the equipment must be taken out of service and operations must not resume until the device is working properly again. Examples of safety devices may include crane level indicator, anti-two block, boom stops, jib stops, foot pedal brake locks, horns, etc.

Operator will comply with all manufacturer procedures applicable to the operational functions of equipment, including its use with attachments.

The operator shall have access at all times to procedures applicable to the operation of the equipment, including rated capacities (load charts), recommended operating speeds, special hazard warnings, instructions, and operator's manual.

Whenever there is a safety concern, the operator has the authority to stop and refuse to handle loads until a qualified person has determined that safety has been assured.

A qualified signal person will be provided for the following situations:

- The point of operation is not in full view of the operator
- The view is obstructed when the equipment is traveling
- The operator or the person handling the load determines it is necessary due to site-specific concerns.

The crane swing radius will be marked with warning lines, railings, or similar barriers when there is a potential for equipment to strike and injure an employee or pinch/crush an employee against any other object.

Only those employees qualified by training or experience shall be allowed to operate equipment and machinery. Certification/qualification requirements established in 1926.1427 shall be met.

The manufacturer must approve all modifications/additions in writing. Where a manufacturer has not provided a review of a detailed description of proposed modification, a registered professional engineer may approve the modification, but must modify load charts, procedures, instruction manuals and instruction plates/tags/decals as necessary. Engineer must be qualified with respect to the equipment involved and must ensure the original safety factor of the equipment is not reduced.

Wire Rope:
Wire rope shall be visually inspected by a competent person and taken out of service when any of the following conditions exist:

- Significant distortion of the wire rope structure such as kinking, crushing, unstranding, birdcaging, signs of core failure, or steel core protrusion between the outer strands;
- Significant signs of corrosion;
- Damage from heat or contact with power lines;
- A broken strand.

Belts, gears, shafts, pulleys, drums, flywheels, chains, or other moving parts shall be guarded if such parts are exposed to contact by employees, or otherwise create a hazard.

All exhaust pipes shall be guarded or insulated in areas where contact by employees is possible in the performance of normal duties.

All windows in cabs shall be made of safety glass, or equivalent, that introduces no visible distortion that will interfere with the safe operation of the machine.

Use of headphones, earphones or other similar devices is not permitted, except for systems designed for work-related communication. Use of music players with or without speakers is not permitted. Hearing protection devices limit high sound levels and do not mask ambient communication and environmental sounds.
An accessible fire extinguisher of 5BC rating or higher, in proper working order, shall be available at all operator stations or cabs of equipment.

Cranes will be set up level on firm ground with adequate cribbing or blocking under each outrigger float, with a minimum surface area in square feet determined by dividing the maximum capacity in tons by 5. Cribbing will be set up with no more than a 1” gap between elements. A documented engineered siting plan that considers equipment and load weights and compression strength of soil beneath equipment can be used in lieu of the “weight by 5” rule.

In transit with no load and boom lowered, the equipment clearance shall be a minimum of 15 feet.

A person shall be designated to observe clearance of the equipment and give timely warning for all operations where it is difficult for the operator to maintain the desired clearance by visual means.

Prior to work near transmitter towers or where an electrical charge can be induced in the equipment or materials being handled, the transmitter shall be deenergized, or tests shall be made to determine if electrical charge is induced on the crane. To dissipate induced voltages the equipment shall be rounded

at the upper rotating structure supporting the boom. Materials will be grounded when electrical charge is induced near energized transmitters. Crews shall be provided with nonconductive poles with large alligator clips or other similar protection to attach the ground cable to the load.

When a crane or hoist has made a pick, no one will stand under the load for any reason. All crane and hoist hooks will have a safety latch in good working condition.

A written Crane Lift Plan will be prepared for all critical lifts involving loads above 75% of capacity for a single crane, for any single lift involving two or more cranes, hoisting with a personnel lift or for any single lift of 80 tons gross or more.

If it is difficult for the operator to see desired clearance, an assistant will be assigned to help him.

This section also applies to all backhoes and loaders.

Copies of valid crane certifications and operators hoisting licenses shall be obtained at mobilization.

Personnel performing signalman activities shall be trained and certified before task performance.

Utilizing Man Basket or Personnel Platforms:
In addition to adherence of the OSHA Subpart CC standard (OSHA 1926.1431 standards are to be met) the use of equipment to hoist employees is prohibited except where it is demonstrated that any other means would pose a greater hazard or is infeasible:

ALL crane supported personnel platforms (Man Basket) must be designed by a qualified engineer.

- Crane supported personnel platforms must be capable of supporting 5 times the maximum intended load and have load capacities posted.
- All crane supported platforms must have compliant gates, headroom, guards, and rails installed per OSHA 1926.1431(e)(6) through (10)
- All Man Baskets must clearly indicate load-bearing capacity on the basket
- Boom and basket load limits specified by the manufacturer shall not be exceeded.
- Do not use personnel lifts as hoists.
- An anti-two-block device will be used
- The lift will be inspected and inspection to be recorded daily
- A prelift meeting is to be conducted and recorded before each use

A trial lift must be performed by a competent person immediately prior to each shift in which personnel with be hoisted and documented on the jobsite.

100% fall protection is required when utilizing the platform as a lift, as well as when accessing the landing platform. All occupants must keep all body parts inside the lift at all times.

Sanitation * See Infectious Diseases Policy

Drinking Water
An adequate supply of sanitary drinking water will be provided.

Water containers, if they are used, shall be capable of being tightly closed and equipped with a tap. Containers shall be marked "DRINKING WATER."

A common drinking cup is prohibited.

Unused disposable cups will be kept in a sanitary container.

Outlets for nonpotable water, such as water for industrial or fire-fighting purposes, shall be identified by signs indicating clearly that the water is unsafe and is not to be used for drinking, washing, or cooking purposes.

Toilets
Where permanent toilet facilities are not conveniently located or available at a job site, portable toilets will be provided and kept in a sanitary condition - notify supervisor if attention is required

Washing Facilities
Adequate washing facilities will be provided for employees engaged in the application of harmful substances or in operations where harmful contaminants are used.

Drivers

This section pertains to the drivers of motor vehicles, both on the highway and within off-highway jobsites not opened to public traffic.

Only authorized personnel may drive or ride in company vehicles. Violations are subject to disciplinary action under the company's enforcement policy.

Vehicles are monitored by a GPS system for improved safety and operational costs.

All drivers must possess a valid CDL operator's license for the type of vehicle they intend to operate, along with a current health card and written examination certificate.

The vehicle shall be of the correct size and designed for its intended purpose. Loads shall be secure and shall not exceed the manufacturer's specifications and legal limits for the vehicle.

Federal Motor Carrier Safety Regulations and Aetna Bridge require the use of seat belts by all truck drivers. Seat belts shall be worn by all occupants at all times whenever a vehicle is in motion.

Obey all traffic regulations, including speed limits. Drivers will report any collision or traffic violation while driving on company duties to their supervisor. Drivers will be held liable for their own violations.

Drivers will not use hand-held cell phones, send or receive text messages or engage in behavior that may cause distraction from safe operation. **"HANDS FREE" OPERATION OF A CELL PHONE IS REQUIRED FOR ALL VEHICLES OVER 10,000 GVW.** Either pull over in a safe place, or have a passenger perform those tasks.

Use of headphones, earphones or other similar devices is not permitted, except for systems designed for work-related communication. Use of radios or music players with speakers is permitted provided the volume levels do not mask ambient communication and environmental sounds. Hearing protection devices limit high sound levels and do not mask sounds.

Before driving a vehicle, check all lights, tires, brakes, wipers, horn, mirrors, reverse alarm, oil and water

levels, low air signal, etc. All defects shall be repaired before the vehicle is driven. At the end of the workday, report all defects and damage that have developed during the day.

For all vehicles over 10,001 GVW, inspection reports shall be filled out daily.

All trucks are equipped with seat belts, fire extinguishers, chock blocks, triangle kits and reverse alarms. It is the driver's responsibility to see that all items are present and that everything is in working order. Drivers who are stopped for any violation of this type will be responsible for the payment of the imposed fine.

No alcoholic beverages or illegal drugs, including Marijuana, shall be carried in, or consumed by anyone in, a company vehicle. Violations are subject to punishment up to and including dismissal.

Do not allow anyone to ride on or in the trailers.

Ride only on seats inside the cab of the vehicle. No one shall be permitted to ride on fenders, running boards or in the bed of a pick-up truck.

Do not jump from moving vehicles.

Clearly signal your intentions of turning, passing, etc. Stay well behind those in front of you for safe stopping.

Use extreme caution while backing up. If another employee is present, he/she shall be stationed at the rear of the vehicle to assist in backing up. The use of a spotter is required for any obstructed view operations.

Work boots or shoes will be worn. Sneakers and other lightweight footwear shall not be worn while driving. Shirts and trousers are required; shorts will not be worn. Safety vests are to be worn by drivers when exiting the truck on any job site.
All tools and materials on board each vehicle shall be safely secure.

Report any and all motor vehicle incidents immediately to your supervisor or the Safety Director.

Equipment Operators

All operators shall be trained and carry a valid operator's license for the type of equipment that they are operating. Operators of forklifts shall be trained and possess documentation.

Before starting any machine, including forklifts, give it a daily (or once each shift in multi-shift operations) preoperational safety check to include oil, water, hoses, brakes, reverse alarm, control operation, etc. Report or repair any defects. At day's end, report all defects and damage that developed during the day and/or repairs made.

All equipment is monitored by a GPS system for improved safety and operational costs.

Defective equipment shall be removed from service until repaired.

Ear protection must be worn while operating a machine with a high noise level.

Use of headphones, earphones or other similar devices is not permitted, except for systems designed for work-related communication. Use of music players with or without speakers is not permitted. Hearing protection devices limit high sound levels and do not mask ambient communication and environmental sounds.

Leather work boots which cover the ankle shall be worn. Sneakers or lightweight shoes will not be worn. Neither shorts nor sweat suits will be worn.

HARD HATS AND SAFETY EYE PROTECTION SHALL BE WORN, UPON LEAVING THE MACHINE, FOR OTHER THAN LUNCH OR QUITTING TIME.

Oilers will wear hard hats at all times.

Operators of loaders and backhoes will also be guided by the safety rules for hoists and cranes when used in that capacity.

Forklift equipment will be parked with parking brake set and controls in neutral when the operator is out of the seat. The carriage will be on the ground, except when operator is adjusting fork width. Additionally, the engine will be turned off when the operator is more than 25 feet away from the machine or cannot see it.

Highway trailer wheels will be chocked, and parking brake set to prevent movement when boarded by forklift equipment while loading or unloading. Fixed trailer jacks may be necessary to prevent trailer from upending when uncoupled from the tractor. Wheel stops, or other positive protective equipment will be used to prevent rail cars from shifting or moving during loading or unloading.

Whenever equipment is parked, the parking brake shall be set. All equipment parked on an incline shall have the wheels chocked and the parking brake set.
Hydraulically operated tools such as dozer blades, scraper blade backhoes, and similar tools shall be kept on the ground when the equipment is parked.

No one shall be permitted to ride on equipment unless in seats provided inside equipment cab.

All equipment with rollover protection cabs shall have seats equipped with seatbelts. Seatbelts will be worn by all equipment occupants.

A minimum clearance of 15 feet shall be maintained between equipment and power lines rated under 50kV. For added information please see section for Overhead Powerline Safety CRANES & HOISTS.

Warehouse

All warehouse personnel will wear steel-toed work boots and eye protection when engaging in work activities.

Sneakers and other lightweight shoes will not be worn.

¼-sleeve shirts and full-length trousers will be worn. Shorts and sweatsuits are not allowed.

While grinding, cutting, or pounding, safety glasses and face shields will be worn.

Cut resistant gloves will be worn when working with sharp objects.

All exposed belts and moving machine parts will be protected by a cover.

Oil spills will be cleaned up immediately and disposed of in accordance with local, state and federal regulations.

When adjusting the forks on the forklift, keep your finger away from any pinch points.

Heavy objects >50# - shall be lifted by mechanical means or with the assistance of a fellow worker.

Oxygen and acetylene bottles will be chained to the wall in separate locations at least 20 feet apart or separated by a 1-hour rated firewall.

Diesel or gasoline engines will not be run inside the warehouse without the exhaust being vented outside.

Gasoline will not be used as a parts cleaner.

All chemicals shall have an updated SDS.

Labeling of any chemical not in original container is required.

Inside welding operations that generate excessive toxic gases will be controlled by ventilation.

PPE - Laborers, Carpenters, Ironworkers & Operating Engineers

All laborers, carpenters, ironworkers, and operating engineers (OE) will have in their possession a hard hat, a Class 3 vest, safety goggles or glasses (ANSI rated), gloves, eyewear, and hearing protection. Safety-toed work boots shall be worn at all times. Sneakers and other such lightweight footwear shall never be worn while at work.

¼-sleeve shirts and full-length pants are required. Shorts, sweatpants, or excessively baggy pants shall not be worn. Hard hats and safety eye protection will be worn at all times. Class 3 vests will be worn when exposed to traffic or construction equipment. For Night Work: Add Class 3 Pants

When using an air compressor with pneumatic air tools (i.e., pavement breaker and jackhammer), hard hats, goggles or eye protection and hearing protection (ear plugs) will be worn.

When using a cut-off saw, a hard hat, safety eye protection and ear plugs will be worn. No guards shall be removed from any piece of equipment.

Flaggers

Flaggers shall wear safety-toe work boots. Sneakers and other lightweight footwear shall not be worn while working on-site.

Shorts and abbreviated shirts will not be worn.

Red hard hats, and orange or lime green safety vests will be worn at all times. High-visibility garments shall be rated Class 3 for daytime wear, and Class 3 with pants or “gaiters” for dusk or nighttime wear. Color may be dictated by site or work area requirements.

A red or orange flag or other suitable device will be used to direct traffic. Individuals conducting flagging tasks shall possess a valid certification of training.

Hazardous Communications Written Program

Company Policy
To ensure that information about the dangers of all hazardous chemicals used by Aetna Bridge is known by all affected employees, the following hazardous information program has been established. Under this program, you will be informed of the contents of the OSHA Hazard Communications standard, the hazardous properties of chemicals with which you work, safe handling procedures and measures to take to protect yourself from these chemicals.

This program applies to all work operations in our Company where you may be exposed to hazardous chemicals under normal working conditions or during an emergency situation. All work units of Aetna Bridge Company will participate in the Hazard Communication Program. Copies of the Hazard Communication Program are available in the main office and on the Company’s webpage for review by any interested employee.

Aetna Bridge Safety Director is the program coordinator, with overall responsibility for the program, including reviewing and updating this plan as necessary.

Container Labeling
All containers received for use will be verified they are clearly labeled as to the contents, note the appropriate hazard warning, and list the manufacturer's name and address.
The labels on incoming containers of hazardous chemicals will not be removed or defaced.

Crew foremen or supervisors will ensure that all secondary containers are labeled with either an extra copy of the original manufacturer's label or with labels marked with the identity of hazardous chemicals, the appropriate hazard warning, the name and address of manufacturer, importer, or other responsible party and in compliance with the requirements of the revised standard.

The hazard warnings will be presented using the same symbols used on the original containers.

If Aetna Bridge employs non-English speaking employees, label information will be presented in their language, either orally through a translator, or in print.

Safety Data Sheets (SDS’s)
Purchasing and the Safety Department will ensure that procedures are developed to obtain the necessary SDS’s and will review incoming SDS’s for new or significant health and safety information. They will see that any new information is communicated to affected employees. The procedure below will be followed when an SDS is not received at the time of initial shipment:

- Material will be reviewed to determine if the SDS is already on file. If not, the distributor or manufacturer’s representative will be contacted for current handling and storage requirements, and the SDS will be requested.

SDS’s for all hazardous chemicals to which employees are exposed or are potentially exposed will be

kept in the main office as well as on the Aetna Bridge Company main webpage. Copies of SDS's which are located on the job site will be gathered and bound at the office. The binder will be issued to the job site prior to work starting at the job site and maintained at the job site. Electronic mobile devices may be used as a substitute source for SDS information but must be backed up by printed copies.

SDS's will be readily available to all employees during each work shift. If an SDS is not available, contact the office.

Both electronic and paper copies of SDS's will be readily available to employees in each work area. They will be maintained in a fluorescent yellow binder labeled "SDS" or other protective storage. Binder will be kept in the field trailer or foreman's truck. If an SDS is missing or not completely legible, it will be replaced by a new copy.

When revised SDS's are received, the following procedure will be followed to replace old SDSs:
- Job site foreman or supervisor will replace the outdated SDS with the new one.

Employee Training and Information
Safety Director is responsible for the Hazard Communication Program and will ensure that all program elements are carried out in compliance with the current revised regulatory identified in the Hazard Communication Standard (29 CFR 1910.1200(g) revised in 2012).

Everyone who works with or is potentially exposed to hazardous chemicals will receive initial training on the hazard communication standard and this plan before starting work. Each new employee will attend a health and safety orientation that includes the following information and training:
- An overview of the OSHA hazard communication standard
- The hazardous chemicals present at his/her work area
- The physical and health risks of the hazardous chemicals
- Symptoms of overexposure
- How to determine the presence or release of hazardous chemicals in the work area
- How to reduce or prevent exposure to hazardous chemicals through use of control procedures, work practices and personal protective equipment
- Steps the Company has taken to reduce or prevent exposure to hazardous chemicals
- Procedures to follow if employees are overexposed to hazardous chemicals
- Where are they and how to read labels and SDSs to obtain hazard information

Prior to introducing a new chemical hazard into any section of this Company, each employee in that section will be given information and training as outlined above for the new chemical hazard.

Hazardous Nonroutine Tasks
Periodically, employees are required to perform nonroutine tasks that are hazardous. Examples of nonroutine tasks are confined space entry, tank cleaning, and painting reactor vessels. Prior to starting work on such projects, each affected employee will be given information by the Safety Director about the hazardous chemicals he or she may encounter during such activity. This information will include specific chemical hazards, protective and safety measures the employee should use, and steps the company is taking to reduce the hazards, including ventilation, respirators, the presence of another employee (buddy systems), and emergency procedures.

Informing Other Employers/Contractors
Other employers and contractors will be provided with information about hazardous chemicals that their employees may be exposed to on a job site and suggested precautions for employees. It is the responsibility of the crew foreman or supervisor to obtain information about hazardous chemicals used

by other employers to which employees of this Company may be exposed.

Other employers and contractors will be provided with SDS's for hazardous chemicals generated by company operations.

In addition to providing a copy of an SDS to other employers, other employers will be informed of necessary precautionary measures to protect employees exposed to operations performed by Aetna Bridge.

Also, other employers will be informed of the hazard labels used by the Company. If symbolic or numerical labeling systems are used, the other employers will be provided with information to understand the labels used for hazardous chemicals for which their employees may have exposure.

List of Hazardous Chemicals
A list of all known hazardous chemicals used by our employees is attached to this plan. This list includes the name of the chemical components and the product. Further information on each chemical may be obtained from the SDS's, located in the main office or site trailer.

When new chemicals are received, this list is updated within 30 days. To ensure any new chemical is added in a timely manner, the following procedures shall be followed:

- Material will be reviewed to determine if the SDS is already on file. If not, the distributor or manufacturer's representative will be contacted for current handling and storage requirements, and the SDS will be requested.

The hazardous chemical inventory is compiled and maintained by Purchasing and the Safety Department.

Chemicals in Unlabeled Pipes
Although infrequent, work activities are sometimes performed by employees in areas where chemicals are transferred through unlabeled pipes. Prior to starting work in these areas, the employee shall contact the Safety Director for information regarding:

- The chemical in the pipes
- Potential hazards
- Required safety precautions

Program Availability
This program is available to any employee that requests it. Requests should be in writing to the Safety Director and will be replied to within (7) seven working days.

Chemical Inventory

Chemical Name **Cross-referenced Product**

A list of materials and associated SDS's are maintained in separate binders. A site-specific list of materials and SDS is sent to each project, and a Companywide list of SDS's is maintained at the main office. SDS's are also located on the Aetna Bridge Company website.

If the list is somehow unavailable, it can be furnished upon request.

Procedures for Removal of Rivets

These procedures are designed to protect our employees and other personnel from flying debris when removing rivets from structural members.

Procedures

1. All work to be coordinated with the general contractor or owner.
2. Cordon off area around and below rivet removal area of operations. Every effort shall be made to contain rivets in work area. At a minimum, use barrier tape and/or warning signs.
3. If working above water or in congested areas, other supplemental measures may need to be implemented to contain rivet debris and to prevent injury due to loose rivet debris or fragments.
4. All rivet contact surfaces shall be free of lead-based coatings prior to removal activity or appropriate lead protection and containment shall be used.
5. Removal of rivet heads:
   (a) if using an oxyacetylene torch to burn off the rivet head, the following PPE is required: gloves, hardhat, safety glasses and long-sleeved shirt or welding jacket.

   (b) If using a “rivet buster” pneumatic gun with a chisel bit to break off the rivet head, the following PPE is required: Leather work gloves, hearing protection, face shield, eye protection under face shield, hard hat, and long-sleeved shirt or welding jacket. You may also need to employ barriers (such as plywood sheets or netting) to contain loose fragments. Consult with your Site Safety Coordinator or our Safety Manager before starting this operation.
6. Removal of rivets:
   (a) When driving out the rivet itself, care must be taken to contain the rivet. The use of a specialty glove, bucket or a sheet of plywood may accomplish this. PPE as indicated above under item 5 is also required.
7. Support of steel member:
   As the rivets are being removed, the underlying steel member must be supported in its place by one of the following methods:
   (a) Secure a chain fall, come along or other such item to steel member during rivet removal; or

   (b) Replace the removed rivets with temporary or permanent bolts.

Maintain good housekeeping - clean site as you go.

Removal of Bird Feces

The abatement contractor shall possess records of biohazard training for all potentially exposed personnel.

Organic Hazards

Workers must receive respiratory protection, worker decontamination procedures training and hazard communication training, as required by 1910.1200 Hazard Communication.

Personal Protective Equipment

Exposure to dust generated by these materials must be minimized through the use of half-face elastomer (not disposable) HEPA-filtered respirators, safety eye protection, Plastex type utility gloves and Tyvek suits. The Abatement Contractor will supply this personal protective equipment to all workers assigned to remove bird waste. The respirator will be worn from the start of the abatement through the

bagging of the bird waste. Workers will be instructed regarding the proper disrobing and removal of the respirator and other personal protective equipment in order to help prevent their exposure to bird feces. The workers will first remove the Tyvek suit, then the gloves. The last items will be the protective eyewear and the respirator.

The workers must be instructed by the Abatement Contractor to not touch their faces with their gloved hands while performing the abatement. The workers also must be instructed to wash their hands with soap thoroughly immediately after removing their protective clothing and before eating, drinking, or smoking. If handwashing facilities are not available, the workers will be provided by the Abatement Contractor with moist antiseptic towelettes until the workers can get to a handwashing station.

Removal of Feces
In buildings, the Abatement Contractor will seal all openings such as attic windows, doors, etc., with two layers of polyethylene sheeting.

The bird waste will be wetted by spray or mist prior to their removal, to suppress dust formation. The bird waste will be scraped from all surfaces and shoveled into plastic trash bags for disposal in the regular waste stream. The protective clothing worn by the Abatement Contractor's workers will also be bagged for disposal in this manner. The shovels and any other tools used to remove the bird waste from the surfaces will be decontaminated by a thorough washing using an antiseptic detergent.

Powered Industrial Trucks

Forklifts, Prime Movers, Tractors, Etc.
The purpose of this program is to ensure that operators of the above equipment have the proper training in accordance with OSHA regulation 1910.178. Each powered industrial truck operator must be competent and have documented training to operate the equipment safely as demonstrated by the successful completion of the training and evaluation specified below.

Prior to permitting any employee to operate a powered industrial truck, unless in training, it will be ensured that each operator has successfully completed the training required below.

Evaluation of each operator's performance shall be conducted at least once every three years.

Each operator shall be certified to have received training as required in the topics below. The certification shall include the name of the operator, the date of the training, the date of the evaluation and the identity of the person(s) performing the training or evaluation.

All operator training and evaluation shall be conducted by persons who have the knowledge, training and experience to train powered industrial truck operators and evaluate their competence.

Training Program Implementation
Trainees may operate powered industrial equipment only:
- Under the direct supervision of a trainer described above, and
- Where such operation does not endanger the trainee or other employees.

Training shall consist of a combination of formal instruction, practical training, and evaluation of the operator's performance in the workplace.

Training Program Content

Operators shall receive initial training in the following topics, except in topics which the employer can demonstrate are not applicable to safe operation of the equipment in the employer's workplace:

- Operating instructions, warnings, and precautions for the types of trucks to be operated,
- The differences between the equipment and the automobile,
- Location and function of equipment controls and instrumentation,
- Engine or motor operation,
- Steering and maneuvering,
- Visibility,
- Use limitations, operation and adaptation of forks and other attachments,
- Load capacity and stability,
- Inspection and maintenance that might be performed,
- Refueling of and/or charging and recharging of batteries,
- Limitations of operations, and
- Complete familiarization with the operator's manual.

Workplace-related Topics

- Surface conditions where equipment will be used,
- Stability and composition of loads to be carried,
- Manipulation, placement, and removal of loads,
- Other traffic, pedestrian or motorized where equipment will be operated,
- Area restrictions where equipment will be operated,
- Hazardous locations where equipment will be operated,
- Ramps and slopes that could affect stability,
- Enclosed areas where insufficient ventilation could cause a buildup of dangerous gases, and
- Any other unique or potentially hazardous environmental conditions that could affect safe operations.

Refresher Training and Evaluation

Refresher training, including an evaluation of the effectiveness of that training shall be conducted accordingly to ensure that the operator has the knowledge and skills needed to operate the equipment safely. This training in relevant topics shall be provided when:

- The operator has been observed to operate in an unsafe manner,
- The operator has been involved in an accident or near-miss incident,
- The operator has received an evaluation that reveals that he/she is not operating the equipment safely,
- The operator is assigned to drive a different type of truck, or
- A condition in the workplace changes in a manner that could affect safe operations.

Avoidance of Duplicate Training

If an operator has previously received training in a topic specified above, and such training is appropriate to the equipment and working conditions encountered, additional training in that topic is not required if the operator has been evaluated and found competent to operate safely.

Jobsite Safety Checklist

Construction

The following will serve as a guide for the development of jobsite checklists. The sample checklist includes many items to be inspected which are common to most construction projects; however, there may be items not listed that you can work with the Safety Director to help develop a Site Specific JHA.

Job Site Information

- Are OSHA and other jobsite warning posters posted?

- Are the required federal and state jobsite posters posted?
- Do you have safety meetings?
- Do you have job safety training, including first aid training?
- Are there medical service and first-aid equipment, stretchers, and emergency vehicles available?
- Are jobsite injury records being kept?
- Are emergency telephone numbers, such as police department, fire department, doctor, hospital, and ambulance posted?

Housekeeping and Sanitation

- Is there general neatness of working areas?
- Is there regular disposal of waste and trash?
- Are passageways and walkways clear?
- Is lighting adequate?
- Are projecting nails removed?
- Has oil and grease been removed?
- Are waste containers provided and used?
- Are the sanitary facilities compliant with the Infectious Disease program?
- Is approved drinking water available and labeled?
- Are there disposable drinking cups?

Fire Prevention

- Have personnel been given instructions in case of fire?
- Are fire extinguishers identified, checked and lighted?
- Is the fire department phone number posted?
- Are hydrants clear and access to any public thoroughfare open?
- Is good housekeeping being maintained?

Hand Tools

- Is the proper tool being used for each job?
- Are neat storage and safe carrying methods in use?
- Are inspections and maintenance being provided?
- Are damaged tools being repaired or replaced promptly?
- Are employees' tools inspected and repaired?

Power Tools

- Is there good housekeeping where tools are used?
- Are tools and cords in good condition?
- Is proper grounding used?
- Are proper instructions in use?
- Are all mechanical safeguards in use?
- Are all guards in place and free from defect or damage?
- Are tools neatly stored when not in use?
- Is the right tool being used for the job at hand?
- Has all wiring been properly installed?

Ladders

- Are ladders inspected and in good condition?
- Are ladders spliced?

- Are they properly secured to prevent slipping, sliding or falling?
- Do side rails extend 36" above top of landing?
- Are built-up ladders constructed per OSHA guidelines and made of sound materials?
- Are rungs or cleats not over 12" on center?
- Are stepladders fully open and locked in position when in use?
- Are metal ladders being prohibited?
- Are proper maintenance and storage provided?
- Are ladders painted?
- Are safety shoes being worn?
- Is access to the ladder and exit from the ladder kept clear of debris/hazards?

Scaffolding

- Is erection properly supervised?
- Will all structural members meet the safety factor?
- Are all connections secure?
- Is the scaffold tied to structure?
- Are working areas free of debris, snow, ice, and grease?
- Are foot sills and mud sills provided?
- Are workers protected from falling objects?
- Are workers protected from falling?
- Is the scaffolding plumb and square, with cross-bracing?
- Are guard rails, intermediate rails, and toe boards in place?
- Is scaffold equipment in good working order?
- Are ropes and cables in good condition?
- Is the scaffolding tagged correctly?

Hoists, Cranes and Rigging

- Have cables and sheaves been inspected?
- Are slings and chains, hooks and eyes checked?
- Is equipment firmly supported?
- Are outriggers used if needed?
- Are power lines inactivated, removed or at a safe distance?
- Are sleeves in place on lines for potential contact conditions?
- Is proper load capacity at the lifting radius maintained?
- Is all equipment properly lubricated and maintained?
- Are inspection and maintenance logs maintained?

Heavy Equipment

- Are regular inspection and maintenance provided?
- Are lights, brakes, warning signals operative?
- Are wheels chocked when necessary?
- Are haul roads well maintained and laid out properly?
- Is equipment protected when not in use?
- Are there shut-off devices on air lines in case of hose failure?
- Are NOX scrubbers in place on exhaust systems?
- Are noise arresters in use?

Motor Vehicles

- Are regular inspection and maintenance performed?
- Are operators qualified?
- Are local and state vehicle laws and regulations observed?
- Are brakes, lights and warning devices operative and back-up signals provided?
- Are weight limits and load sizes controlled?

- Are personnel carried in a safe manner?
- Are fire extinguishers installed where required?

Barricades
- Are floor openings planked over or barricaded?
- Are roadways and sidewalks effectively protected?
- Is adequate lighting provided?
- Are traffic controls present?

Handling and Storage of Materials
- Are materials properly stored or stacked (firm footings)?
- Are passageways, exits and entrances clear?
- Are workers lifting loads correctly?
- Are materials protected from weather conditions?
- Is dust protection observed?
- Are extinguishers and other fire protection available?
- Is traffic controlled in the storage area?

Excavation and Shoring
- Are adjacent structures properly shored?
- Is proper shoring and sheathing used for soil and depth?
- Are roads and sidewalks supported and protected?
- Is material stored too close to excavations?
- Is excavation barricaded and lighting provided?
- Is equipment a safe distance from the edge of excavation?
- Are ladders provided where needed?
- Are equipment ramps adequate?
- Is job supervision adequate?

Flammable Gases and Liquids
- Are all containers clearly identified?
- Are proper storage practices observed?
- Are fire hazards checked?
- Are proper storage temperatures and protection maintained?
- Are proper types and number of extinguishers nearby?

Welding and Cutting
- Are operators qualified?
- Are screens, shields, goggles, gloves and clothing provided and used?
- Is equipment in operating condition?
- Is electrical equipment grounded?
- Are power cables protected and in good repair?
- Are fire extinguishers of proper type nearby?
- Are inspections for fire hazards conducted?
- Are flammable materials protected?
- Are gas cylinders secured upright?
- Are gas lines protected and in good condition?
- Are cylinder caps in use?
- Are carts for moving cylinders available?

Steel Erection
- Are there safety nets or planked floors?
- Are hard hats, safety shoes and gloves in use?

- Are there tag lines for tools?
- Have fire hazards been checked?
- Are floor openings covered and barricaded?
- Is proper access provided? (stairs, ladders, etc.)
- Has all hoisting apparatus been checked?
- Are employees riding the ball?

Concrete Construction

- Are forms properly installed and braced?
- Is adequate shoring plumbed and cross-braced?
- Does shoring remain in place until strength is attained?
- Are proper curing periods and procedures followed?
- Are permits for heating in place?
- Are heating devices checked?
- Is mixing equipment supported, traffic planned and properly routed?
- Are transport routes planned and maintained, including adequate runways?
- Is protection provided from cement dust?
- Are hard hats, safety shoes, shirts and long trousers providing skin covering?
- Have nails and stripped form materials been removed from the area?

Masonry

- Is proper scaffolding in use?
- Are masonry saws properly equipped and proper dust protection provided?
- Is hoisting equipment safe?

Highway Construction & Work Zone Safety

- Are laws and ordinances observed?
- Are flagmen competent and properly dressed?
- Is a traffic control plan in place?
- Are warning signs and markers adequate?
- Is traffic controlled through construction site?
- Are markings and maintenance of detours adequate?
- Is dust control provided?
- Has work zone safety training been performed?
- Is lighting adequate?

Marine Operations

- Are personal flotation devices (PFD) serviceable and fastened properly?
- Are approved life rings with minimum 90 ft. of line available within 100 feet?
- Is a ladder available from the water surface to the top of the deck, plus 3 feet beyond?
- Is a life-saving skiff available at all times?
- Are watercraft maintained to OSHA and USCG standards?
- Is there a heavy weather plan and a competent person to monitor conditions?
- Is there a written safe dive practices plan?
- Are all training and certifications for divers and equipment operators current?
- Are workers using the buddy system and not working alone?
- Is there a communication system in place for land-based emergency response?
- Have drills been conducted to evaluate emergency response measures?

Personal Protective Equipment

- Are the following provided and used?
  - Eye protection
  - Head protection

- Hand protection
- Hearing protection
- Foot protection
- Work zone safety
- Face shields
- Respirators and masks
- Helmets and hoods
- Gloves, aprons, and sleeves
- Respirators, for harmful dust, sand blasting, etc.
- Hearing protection

Risk Matrix

Aetna Bridge requires its employees and subcontractor employees at all levels to evaluate operations to identify potential hazards and to plan ahead to prevent accidents. Before beginning a work activity, whether routine or not, involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform the work, the contractor(s) performing that work activity shall prepare a Job Hazard Analysis (JHA). The JHA will include, at a minimum, the activity, and the work sequences to be performed, potential hazards and the control measures to be used to eliminate or reduce the hazard.

It is important to remember that safety issues in general and construction jobsites specifically will require a site- or hazard-specificity – a “one size fits all” approach is not recommended, nor will it likely be very effective. Attention will be paid to site conditions and requirements and will list required PPE. Hazards identified shall not be limited to, and will include at least, the OSHA Focus Four: Falls, Electrical, Struck-by, Caught-between.

The JHA will be prepared by superintendent, Safety Director, crew foreman or designated competent person and will include active involvement by all workers and subcontractors during its development. The completed JHA will be reviewed by all workers involved before beginning the work activity. Where a JHA specifies a method will be used to eliminate or reduce the hazard, and it is determined the method is infeasible or does not provide the protection needed, work activity will be halted while a review of the operation is undertaken. The JHA will be updated to reflect all changes made to maintain safe work activity.

During the development of the JHA, a risk matrix may be used to identify the level of risk associated with a particular activity or hazard. Risk level is defined by probability and consequences, or how likely it is to happen and how bad it would be if it happened.

The probability is identified as 'Certain,' 'Likely,' 'Possible,' 'Unlikely' and 'Rare.'

However, it must be considered that very low probabilities may not be very reliable. The consequences can be defined as:

- Negligible - One Minor Injury
- Marginal - One Severe Injury or Multiple Minor Injuries
- Critical - One Death or Multiple Severe Injuries
- Catastrophic - Multiple Deaths

Activities with a risk level of High or Extreme shall have a detailed JHA prepared and submitted for approval by contractor management and project owner representatives.

Probability	**Consequence**			
	Negligible	**Marginal**	**Critical**	**Catastrophic**
Certain	High	High	Extreme	Extreme
Likely	Moderate	High	High	Extreme
Possible	Low	Moderate	High	Extreme
Unlikely	Low	Low	Moderate	Extreme
Rare	Low	Low	Moderate	High

Job Hazard Analysis for All Sites

Project activities will be reviewed by the superintendent and the Safety Director to identify hazards that may occur, and to specify the action that will be taken to minimize that hazard. Subcontractors will provide the project superintendent with a hazard analysis for the activities they have contracted to perform.

The Job Hazard Analysis will properly identify:
- Project name and location,
- Name, title, and company of the person submitting the JHA,
- Date submitted, effective date (date work is expected to commence), and
- Projected completion date.

In the spaces provided on the form, briefly describe the
- Job or process of work, i.e., concrete demolition of existing bridge pier and northwest abutment wall
- Required job training and required personal protective equipment,
- Activity or operation,
- Potential unsafe condition, activity, or hazard, and prevention or corrective actions.

The hazard analysis must be submitted to the main office for approval at least 14 days prior to the work activity starting. The fax number for the Aetna main office is 401.463.3865. The approved JHA will be signed and dated and kept on file at the site and will be periodically reviewed by the site superintendent and updated as necessary to ensure hazards associated with ongoing activities are minimized.

For convenience and ease of use, an Excel spreadsheet file is available for use in submitting a JHA; if needed please request form from the Project Manager.

Some activities are common to most projects and such items will be added to a master list to be maintained by the Safety Director or a designated representative. Use of the prepared spreadsheet file is not required if an alternative method of record keeping has been devised.

Prior to the start of a new project or phase of an existing project, a copy of the current master list will be used to create a new JHA specifically for that project. The Safety Director and Project Manager will

review the master list and delete items that do not apply to the project at hand.
Some activities or hazards are site-specific, and the superintendent will work with the Safety Director to add such items and preventive actions to the project's JHA.

Personal Protective Equipment/Assessments

All employees who, by the nature of their work and the hazards they are exposed to, may need to wear personal protective equipment (PPE) shall receive training in its selection and use. Training shall include topics on:

- When PPE is necessary,
- How to properly don, doff, adjust, wear and store PPE,
- Limitations of PPE, useful life of PPE and
- Proper care, inspection and maintenance of PPE, and proper disposal

Retraining or refresher training will be provided when changes in the workplace or the type of PPE used make previous training obsolete.

If an employee demonstrates lack of use, improper use, or insufficient skill or understanding of proper use of PPE, refresher training is required.

All such training will be documented and include the employee's name, dates of training and subject.

Personal protective equipment, whether provided by the employer or the employee, will be used and maintained in a sanitary and reliable condition. The employer is responsible to assure it is adequate and in good condition, and of proper fit to the employee. PPE that is determined to be ineffective, damaged, or defective shall not be used.

An assessment will be made of hazards not normally encountered and provided for in this Safety & Health Plan. The assessment will include the name, signature, date and identification of hazards, PPE selected and reasons for selection.

General Jobsite Clothing Requirements

- A minimum 1/4-length sleeve shirt required
- Full length well-fit Trousers - NO SWEATPANTS or Running outfits
- Class 3 vest required when exposed to traffic and machinery; when working at dusk or dawn, Class 3 pants/gaiters
- Safety-toe boots that cover the ankle
- Hard hats that meet ANSI Z89.1, 2014 impact and penetration protection Class G
- Safety Eye Protection compliant with ANSI 287.1
- Cut-resistant gloves when handling sharp objects
- Proper hearing protection in compliance with Aetna Bridge's Hearing Conservation Program

THESE CLOTHING REQUIREMENTS ARE MANDATORY ON ALL JOB SITES FOR YOUR SAFETY

Respiratory Protection Policy

Page(s)

Purpose
The purpose of this written program is to protect workers from the inhalation of lead dust, asbestos, silica, fumes, and organic solvent vapors they might encounter while working at Aetna Bridge Company's job sites.

Introduction
This written respiratory protection program has been established in accordance with the respiratory protection requirements of 29 CFR 1910.134, 1910.1025(f) under the general industry standard and 29 CFR 1926.103 under the construction industry standard.

During work activities involving lead-containing paint or material, asbestos or silica, employees may be exposed to high concentrations of airborne fumes and dust for long periods of time. When an employee is exposed to concentrations of airborne toxic materials which are above the maximum standards established by the Occupational Safety and Health Administration (OSHA), the law requires implementation of feasible engineering controls and/or administrative controls to reduce employee exposure.

Program Guidelines
Aetna Bridge and all its subcontractors will comply with the implementation of the respiratory protection program.

All respirator testing will be performed by an approved medical facility in compliance with the OSHA Respiratory Protection Program requirements, such as an industrial hygienist or other authorized individual.

- Employees performing lead removal operations, asbestos removal and contact with silica shall have a valid medical clearance to wear respiratory protection, prior to any use.
- Aetna Bridge will perform face fit tests for employees wearing respirators with negative air pressure and also powered air-purifying respirators. The fit testing for respiratory protection should be performed annually or in accordance with the OSHA Respiratory Fit Testing Standards (§1926.134).
- Appropriate respirators will be selected for employees for the specific job function by representatives of Aetna Bridge. Respirators will be assigned to individual employees.
- Cleaning and maintenance of the respirators will be performed by the individual employees at the end of each work shift.
- Record-keeping of respiratory fit test and medical clearance will be maintained and kept by Aetna Bridge.
- Employees will be trained in knowledge of respirators and their limitations, how to check fit, when to use them, how to maintain and store them, how to determine they are effectively used, and the requirements of the OSHA standard for respirator use. Initial training will be provided before respirator use and refreshed annually.

Facial Hair and Corrective Lenses Requirement
It is required, in accordance with OSHA regulations, it is Aetna Bridge Company's requirement that all employees performing such work have a clean-shaven face.

Instruction
There has been considerable concern and discussion about the extent of facial hair that is acceptable for individuals who need to wear respirators. According to the OSHA standard 1910.134, "Respirators shall not be worn when conditions prevent a good face seal. Such conditions may be a growth of beard,

untrimmed sideburns, a skull cap that projects under the face piece or the temple pieces on glasses. Also, the extent of hair on the head shall not compromise the respirator seal or valve function."

Facial Hair

It should be noted that any worker who has facial hair that interferes with the respirator seal or valve function shall be required to be clean shaven if respiratory use is a job requirement. This is consistent with OSHA regulations which state that employees assigned to wear respirators shall be "clean shaven" or not have facial hair that interferes with the respirator seal or its valve function.

Any worker who is not "clean shaven" will not be allowed to wear a respirator, even though they have previously obtained a satisfactory fit with a particular device.

However, trimmed mustaches, goatees and sideburns may be acceptable when they do not present a seal or valve problem consistent with this policy.

Proper fitting of a respirator on a "clean shaven" face results in obtaining adequate protection for the vast majority of wearers. If facial hair is present, this results in a significant loss of protection to the wearer. For this reason, enforcement of the "clean shaven" policy is necessary to ensure that the employee's health is protected.

Corrective Lenses

Corrective lenses that have temple bars or straps may prevent proper sealing and should not be used when a full-face respirator is worn. An adapter kit to accommodate eyeglasses may be purchased from the manufacturer. Contact lenses should not be worn while wearing a respirator. A properly fitted respirator may stretch the skin around the eyes, increasing the possibility that the contact lens will fall out.

Medical Qualifications

Requirement

The OSHA respiratory protection standard requires that all respirator wearers be medically qualified for respirator use.

Surveillance (subject to change)

Carewell Medical, Concentra Medical, Physician One Medical

They will be performing physicals, pulmonary function tests and other medical tests for all employees who will be using respirators. The medical facility will inform Aetna Bridge of the medical clearance for each employee to wear a respirator. Only those individuals who are medically able to wear respiratory protective equipment will be allowed to do so. Before being issued a respirator, an employee will receive pertinent tests and or questionnaires for medical and physical conditions.

Medical tests that may be administered by a physician include:

- Pulmonary function tests (FVC and FEV);
- Chest X-ray; and
- Any other test deemed appropriate by the examining physician.

Medical factors to be considered by a physician include:

- Emphysema;
- Asthma;
- Chronic bronchitis;
- Heart disease;

- Anemia;
- Hemophilia;
- Poor eyesight;
- Poor hearing;
- Hernia;
- Lack of use of fingers or hands;
- Epileptic seizures; and
- Any other factors which might inhibit respiratory equipment or wearability

Fit Testing of Respiratory Equipment

Requirement

Respirator fit testing is required to be performed for each type of negative pressure respirator and also powered air purifying respirators worn by an employee. The fit test will be performed by a licensed healthcare provider, an industrial hygienist or other authorized individual. A certificate will be completed at the time of the fit testing and records will be kept for all employees.

Instruction

The general methods used for fit testing of respirators include either qualitative or quantitative testing.

Fit testing will be performed prior to being authorized to utilize a Respiratory Unit.
Employees will undergo fit testing with each type of respirator that they are required to wear.

Qualitative Fit Testing

Qualitative fit testing of respirators provides a quick indication of a good face piece to face fit and seal for the respirator user will be performed by a LHCP.

Respirator Selection

Requirement

Approved respirators are to be used for the specific hazards encountered.

Respirators used shall be selected by the superintendent from those approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH) for use in atmospheres containing airborne particles and fumes. A NIOSH-approved respirator contains the following:

- An assigned identification number placed on each unit;
- A label identifying the type of hazard the respirator is designated to protect against;
- Additional information on the label which indicates limitations and identifies the component parts approved for use with the basic unit.

The approved respirator shall be worn for the existing working conditions specified below.

Air-purifying respirators:

The NORTH HALF MASK RESPIRATOR – 7700 Series shall be the default respirator used by Aetna Bridge Company for all fit test and field use unless a special written safety workplan directs otherwise. A reusable air purifying respirator with a HEPA combination (organic vapors and particulate) cartridges may be used to reduce the concentration of airborne particles, when the 8-hour, time-weighted average airborne concentrations are reasonably expected to exceed not more than 0.5 mg/m3 or 10 times the current OSHA 8-hour PEL at 0.05 mg/m3. Disposable paper respirators shall not be used at any time.

***Powered air-purifying respirators**:*
A powered air-purifying respirator shall be used when the 8-hour, TWA concentrations of airborne particles are reasonably expected to exceed no more than 1.25 mg/m3 or 25 times the OSHA 8-hour PEL of 0.05 mg/m3.

***Full-face piece powered air-purifying respirator**:*
A full-face piece air-purifying respirator or a full-face piece powered air-purifying respirator shall be used when the 8-hour, TWA concentration of airborne particles is reasonably expected to exceed no more than 2.5 mg/m3 or 50 times the OSHA 8-hour PEL of 0.05 mg/m3.

***Type "C" supplied-air respirators, pressure-demand class, equipped with a half mask**:*
A type "C" pressure-demand supplied-air respirator equipped with a half mask shall be used when the 8-hour, TWA concentrations of airborne particles are reasonably expected to exceed no more than 50 mg/m3 or 1,000 times the OSHA 8-hour PEL of 0.05 mg/m3.

***Type "C" supplied-air respirators, positive pressure-demand class, equipped with a full-face piece**:*
A type "C" pressure-demand supplied-air respirator equipped with a full-face piece shall be used when the 8-hour, TWA concentrations of airborne particles are reasonably expected to exceed no more than 100 mg/m3 or 2,000 times the OSHA 8-hour PEL of 0.05 mg/m3.

Respirator Assignment and Maintenance
Respirators will be assigned to individual workers for their exclusive use A system of record-keeping shall be established to document all employees who have respiratory protection equipment. Respirators shall be regularly cleaned and disinfected. The respirators issued for the exclusive use of one worker shall be cleaned after each day's use: more often if necessary.

Filters shall be changed on a regular basis after use or when the user can smell odors or has a difficult time drawing air.

This procedure is described as follows:

- At the end of the shift, the respirator shall be washed with detergent in warm water after proper removal of cartridges. If possible, detergents containing a bactericide should be used. An organic solvent should not be used, as it may deteriorate the rubber face piece. If bactericide detergent is not available, a detergent wash should be used. Two types of disinfectants may be made from readily available household solutions. A sodium hypochlorite solution (50 ppm) can be made by adding two tablespoons of chlorine bleach to one gallon of water. An aqueous solution of iodine (50 ppm) can be made by adding one teaspoon of tincture of iodine to one gallon of water. A two-minute immersion of the respirator into either solution would be sufficient for disinfection.
- Respiratory equipment shall be thoroughly rinsed in warm, clean water (120 degrees F maximum) to remove all traces of detergent, cleaner, sanitizer and disinfectant.
- Respiratory equipment shall be allowed to air dry on a clean surface or hung from a horizontal wire.
- When not in use, respiratory equipment shall be sealed in plastic bags and stored in a single layer with the face piece and exhalation valve in a nondistorted position. A metal cabinet with shelves is well suited for this purpose.
- Repair or replacement of component parts must be done by qualified individuals.
- Substitution of parts from a different brand or type of respirator will invalidate the approval of the respirator.

Inspection for defects in respiratory equipment must be done before and after each use and during cleaning. The primary defects to look for in the inspection of component parts of the respiratory and corrective actions where appropriate, are itemized below:

1. Air-purifying respirators (half-mask and full-face piece)
   a. Rubber face piece, check for:
      - Excessive dirt (clean all dirt from face piece);
      - Cracks, tears, or holes (obtain new face piece);
      - Distortion (allow face piece to “sit” free from any constraints and see if distortion disappears; if not, obtain new face piece; and
      - Cracked, scratched or loose-fitting lenses (contact respirator manufacturer to see if replacement is possible; otherwise obtain new face piece).
   b. Head straps, check for:
      - Breaks or tears (replace head straps);
      - Loss of elasticity (replace head straps);
      - Broken or malfunctioning buckles or attachments (obtain new buckles); and
      - Face piece slippage (replace head strap).
   c. Inhalation valve, exhalation valve, check for:
      - Detergent residue, dust particles or dirt on valve or valve seat (clean residue with soap and water);
      - Cracks, tears or distortion in the valve material or valve seat (contact manufacturer for instructions); and
      - Missing or defective valve cover (obtain valve cover from manufacturer).
   d. Filter element(s), check for:
      - Proper filter for the hazard;
      - Approval designation;
      - Missing or worn gaskets (contact manufacturer or replacement);
      - Worn threads, both filter threads and face piece threads (replace filter or face piece, whichever is applicable);
      - Cracks or dents in filter housing (replace filter); and
      - Missing or loose hose clamps (obtain new clamps).
2. Air-supplying respirators
   a. Check face piece, head straps, valves and breathing tube as for air-purifying respirators.
   b. Hood, helmet, hoses, full suit, if applicable, check for:
      - Headgear suspension (adjust properly for you);
      - Cracks or breaks in face shield (replace face shield); and
      - Protective screen to see that it is intact and fits correctly over the face shield.
   c. Air-supply system, check for:
      - Breathing air quality;
      - Breaks or kinks in air-supply hoses and end-fitting attachments (replace hose and/or fitting);
      - Tightness of connections;
      - Proper setting of regulators and valves (consult manufacturer’s recommendations);
      - Correct operation of air-purifying elements and carbon monoxide or high temperature alarms; and
      - Breathing air may be supplied by cylinders or air compressors. The compressor supplying air must be equipped with necessary safety devices; and Emergency escape bottle for breathing air should be in place in conjunction with the main air-supply system.

Do not enter the work area unless your respirator is in good condition.

Record Keeping

Requirement
Records will be kept of all respirator fit testing and training.

Instruction
The hard copies of all employee respirator fit testing certificates will be kept on file along with the medical clearance certificates. This data will also be incorporated into the employee file. This will enable Aetna Bridge to assist in retesting and retraining of respirator wearers.

These documents serve as legal records and will also aid in the retesting and retraining of respirator wearers. All relevant information must be filled in on each form, including the name of employee, supervisor, the person conducting training and the employee's signature.


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APPENDIX G

MANDATORY INFORMATION FOR EMPLOYEES USING RESPIRATORS WHEN NOT REQUIRED UNDER THE STANDARD

(Appendix D to Sec. 1910.134)

Employers who allow their employees to wear respirators on a voluntary basis when not required by OSHA or the employer must implement limited provisions of a respiratory protection program. When a filtering face piece respirator is all that is used, the employee must be provided a copy of Appendix D. For all other voluntary users, an additional written respirator program that covers medical fitness and proper maintenance procedures must be implemented.

Information Required by the Employee for Voluntary Use of Respirator (must be requested)

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard. You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirator's limitations.

2. Choose respirators certified for use to protect against the contaminant of concern.

   NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

_____ _____

Employee's Name and Signature Date

Crystalline Silica

Silicosis
Silicosis is a disabling and sometimes fatal disease caused by prolonged exposure to crystalline silica by inhalation. Overexposure to dust that contains microscopic particles of crystalline silica can cause fibrosis or scar tissue formations in the lungs that reduce the lungs' ability to work to extract oxygen from the air. In addition to silicosis, inhalation of crystalline silica particles has been associated with other diseases such as bronchitis, tuberculosis, and lung cancer.

There are three forms of silicosis:
- *Chronic silicosis* usually occurs after ten or more years of overexposure.
- *Accelerated silicosis* results from higher exposures and develops over five to ten years.
- *Acute silicosis* occurs where exposures are the highest and can cause symptoms to develop within a few weeks or up to five years.

<u>There is no cure, only prevention.</u>

Crystalline silica, also known as quartz, is a natural compound in the earth's crust and is the basic component of sand and granite. Concrete, masonry products, drywall material and drywall compounds, glass, tile, and manufacturing abrasives contain silica. Since these are primary building products, employees are exposed by:

- Abrasive blasting using silica sand as the abrasive.
- Chipping, hammering and/or drilling rock.
- Crushing, loading, hauling and/or dumping rock.
- Demolition of concrete and masonry structures.
- Doing any of the following to concrete, masonry, drywall, drywall compounds, ceramics, clay, pottery, and tile:
  - Chipping
  - Hammering
  - Drilling
  - Sanding
  - Sawing
  - Grinding
  - Scraping
- Dry sweeping or pressurized air blowing of concrete, sand, or drywall dust and drywall compound.
- Mixing of concrete and mortar.

The key to silicosis prevention is to prevent dust from being in the air. OSHA requires dust to be controlled whenever possible.

Respirators should not be used as the primary method of protection from silica dust. They are only to be used until adequate dust controls are in place.

Aetna Bridge's Silica Reduction commitment
We at Aetna Bridge take this commitment seriously. We continue to work to prevent employee's exposure to dust on all work sites.

Aetna Bridge provides and ensures the use of appropriate controls for crystalline silica-containing dust. At a minimum work sites that may involve working with silica must utilize OSHA's TABLE ONE for removing and/or reducing the exposure.

Aetna Bridge will continue to monitor dust levels in the air and take corrective action if needed. Install and maintain engineering controls to reduce silica dust.

Enforce the use of water hoses, HEPA vacuums, or wet-sweeping, rather than allow blowing silica dust with compressed air or dry-sweeping.

Participate in an awareness training program that trains employees about the health effects of silica dust and in good work practices that reduce dust.

Make sure that employees are familiar with the Company Respirator Program.

Post warning signs in all areas where respirable silica is present.

Aetna Bridge has developed a Respirable Crystalline Silica Exposure Control Program plan dated September 2017 which is applicable to all company workforce members and work site locations. This document has been prepared to identify company procedures and construction activity methods to meet the regulatory requirements recognized in the OSHA Regulation 29CFR 1926.1153 - Toxic and Hazardous Substances/Respirable Crystalline Silica which is effective on September 23, 2017.

A copy of this document titled Respirable Crystalline Silica Exposure Control Plan is located at the corporate office and at each job site, and should be referenced prior to undertaking any activity which may result in potential exposure to crystalline silica materials.

Medical Examinations
All workers breathing crystalline silica dust should have a medical examination to include:

- Chest X-ray
- Pulmonary function test
- Annual evaluation for TB (tuberculosis)

Note that all medical information must be kept on file for 30 years.

OSHA has a Permissible Exposure Limit (PEL), which is the maximum amount of airborne crystalline silica that an employee may be exposed to during a work shift.

Employees
All employees exposed to respiratory dust will be protected using a respirator if other adequate dust controls are not present.

Be aware of the health effects of crystalline silica and that smoking increases the damage.

Know what work operations give exposure to crystalline silica. Participate in any air monitoring or training offered by the employer.

Make sure the dust control system being utilized is kept in good condition. Minimize exposures to nearby workers by using good work practices.

Use the correct respirator for protection against crystalline silica-containing dust.

Use the respirator correctly and in accordance with Aetna Bridge's Respirator Program. Whenever possible, change into disposable or washable work clothes at the work site and change into clean clothing before leaving the work site.

Do not eat, drink, use tobacco products or apply cosmetics in areas where there is dust containing crystalline silica.

Wash your hands and face before eating, drinking, smoking, or applying cosmetics outside of the exposure area.

Whenever possible, change into disposable or washable work clothes at the work site and then change into clean clothing before leaving the work site.

Do not eat, drink, use tobacco products or apply cosmetics in areas where there is dust containing crystalline silica.

Wash your hands and face before eating, drinking, smoking, or applying cosmetics outside of the exposure area.

Additional Information
Under CFR PART 1926, Occupational Safety and Health Standards for the Construction Industry, the following listed sections includes those standards that may, under appropriate inspection conditions, be cited for crystalline silica overexposure under the Special Emphasis Program for Silicosis.

Respiratory Protection 1926.103
Permissible Exposure Limit and Controls 1926.55
.....1926.57
Accident Prevention and Warning Signs 1926.200
Access to Employee Exposure and Medical Records 1926.33
OSHA 200 Forms 1904
.....1926.22
Abrasive Blasting, Breathing Air, Enclosures, Controls 1926.28
.....1926.55
.....1926.95
.....1926.100
.....1926.101
.....1926.102
.....1926.103
.....1926.300
Hygiene 1926.27
.....1926.51
General PPE 1926.28
General PPE 1926.95
.....1926.100-105
Hazard Communication 1926.59
Safety and Health Program 1926.20

Asbestos Awareness

During daily job activities, Aetna Bridge employees may perform work in facilities that contain asbestos. Any employee working in such facilities will be trained in the following area(s):

- Background information and Safe Work Practices
- Potential health effects
- Damage recognition
- OSHA regulation

Section I

Background Information

Asbestos is a generic term for a group of minerals known for their strength, flame and heat resistance, and seemingly indestructible qualities.

Once considered a "miracle mineral," asbestos was used for many years in building construction. It can be found in many forms and places. Asbestos was used in boiler and pipe insulation, plasters, floor tile, electrical insulation, and as a fireproofing material on structural members in buildings. It has also been sprayed on ceilings and walls as acoustic insulation.

Because of its indestructible qualities, asbestos is harmful to the human body. The body cannot digest, break down, or change asbestos; it can only attempt to encapsulate it with scar tissue.

Several types of asbestos were banned by the EPA in the mid-70's due to concern over the health effects (especially cancer) associated with exposure to such materials. It is important to remember that asbestos generally has been found to be hazardous to humans only when it is inhaled into the lungs.

Asbestos occurs naturally as a fiber; individual fibers are so small they are invisible to the naked eye. Most asbestos is not hazardous in its original, undisturbed state; only when it is disturbed does it release asbestos fibers.

Symptoms of asbestos-related diseases do not occur soon after exposure. Those who are sick today because of asbestos may have been exposed 20 to 40 years ago. Controlling exposures now will prevent disease and suffering decades later.

Asbestos may be found in many different products and many different places. Examples of products that might contain asbestos are:

- Sprayed on fireproofing and insulation in buildings
- Insulation for pipes and boilers
- Wall and ceiling insulation
- Ceiling tiles
- Floor tiles
- Putties, caulks, and cements (such as in chemical-carrying cement pipes)
- Roofing shingles
- Siding shingles on old residential buildings
- Wall and ceiling texture in older buildings and homes.
- Joint compound in older buildings and homes
- Brake linings and clutch pads
- Electrical fixtures and wiring

There are many substances that workers contact which may contain asbestos and have the potential to release fibers. Only rarely can asbestos in a product be determined from labeling or by consulting the manufacturer. The presence of asbestos cannot be confirmed visually. The only way to positively identify asbestos is through laboratory analysis of samples.

If the presence of asbestos is suspected always assume that it is an asbestos-containing material and have it analyzed. Materials may be considered to be Asbestos Containing Material (ACM), or Presumed Asbestos Containing Material (PACM).

The potential for a product containing asbestos to release fibers depends on its degree of friability. Friable ACM can easily be crumbled or reduced to a powder by hand pressure, releasing fibers into the air.

The white fibrous or fluffy spray-applied asbestos material found in many buildings for fireproofing, insulating, sound proofing, or decorative purposes are friable. Friable ACM is found primarily in building areas not generally accessible to the public, such as boiler and machinery rooms. For example, asbestos insulation around pipes and boilers is considered friable.

Asbestos that is tightly bound with another material is considered nonfriable and will only release fibers if sanded, cut, or broken. For example, ceiling tiles containing asbestos, and asbestos-cement pipe or sheets will not normally release fibers unless cut or broken. Vinyl asbestos tile is also considered nonfriable and generally does not emit fibers unless sanded, cut, or sawed.

Section II

Potential Health Effects

The increase in the use of asbestos resulted in a dramatic rise in asbestos-related diseases among workers. At first, asbestos was not regarded as a health hazard because it has no taste or odor, often cannot be seen, and causes no immediate health effects. Health problems, however, developed over time in exposed workers. It was not until the 1950s that asbestos received widespread attention as a potential health hazard. The diseases associated with asbestos did not appear for 20-40 years after the initial exposure, making it very difficult to confirm asbestos as the cause. However, overwhelming evidence now exists that exposure to airborne asbestos fibers is linked to several serious diseases.

Exposure to asbestos can cause disabling respiratory diseases and several types of cancer. The main routes of exposure are inhalation and ingestion. Asbestos fibers cannot penetrate the skin. Asbestos has been shown to cause asbestosis, lung cancer, mesothelioma, and cancer of the stomach and colon. The majority of people who died from asbestos exposure were exposed to very high concentrations of asbestos fibers at work and had little or no protection. These employees worked with asbestos regularly and for long periods of time. Examples include workers who held jobs in industries such as shipbuilding, mining, milling, and fabricating. Many of these workers were also smokers.

The most dangerous exposure to asbestos is from inhaling airborne fibers. The body's defenses can trap and expel many of the particles. However, as the level of asbestos fibers increases many fibers bypass these defenses and become embedded in the lungs. The fibers are not broken down by the body and can remain in body tissue indefinitely.

The Respiratory System

Since the primary health effects due to asbestos exposure are on the lungs, it is important to know how the respiratory system works. Air passes through the mouth and nose into the windpipe which splits into two smaller airways called the bronchi.
The bronchi divide into smaller and smaller tubes which terminate into air sacs called alveoli. It is in these air sacs that oxygen is absorbed into small blood vessels and carbon dioxide passes out of the blood.

The lungs are surrounded by a thin membrane which looks like saran wrap. These membranes are very moist and slide easily across each other but are difficult to pull apart. The linings are composed of cells known as mesothelial cells. Interaction of asbestos with these cells can result in a cancer called

mesothelioma. If the linings are damaged, inhalation cannot occur properly.

The body has several mechanisms to filter the air we breathe. Large particles are trapped by the hairs in the nose. Smaller particles impact on the mucous coated walls of airway and are caught. The airway has hair-like linings (ciliated cells) which constantly beat upward. Dust particles caught in the mucous are swept upwards into the back of the mouth and swallowed. Cigarette smoking temporarily paralyzes these hair-like projections preventing them from discharging the dust particles. This is one reason cigarette smokers who work with asbestos are at increased risk.

Particles reaching the tiny air sacs are engulfed by large cells called macrophages. However, because asbestos is a mineral fiber, they are often unsuccessful. When this occurs, the macrophages deposit a coating on the fiber and may form scar tissue around it.

Asbestosis
Asbestosis is a noncancerous chronic respiratory disease caused by an accumulation of asbestos fibers in the lungs. The fibers cut the air sacs and cause scar tissue to form. Even after exposure to asbestos has stopped, scar tissue will continue to form around existing scar tissue and fibers in the lungs. The scarring reduces the capacity of the lung to take in air, resulting in shortness of breath, coughing, and fatigue. As the disease worsens, shortness of breath occurs even at rest. In severe cases death may be caused by respiratory or cardiac failure.

Asbestosis is typically found in workers who have been exposed to large doses of asbestos over a long time. The greater the asbestos exposure the more likely asbestosis will develop. It may take 15-30 years for the disease to develop. Because the presence of asbestosis indicates that workers have been exposed to a large dose of asbestos, they are at greater risk for lung cancer.

Lung Cancer
Exposure to asbestos has been linked to an increased risk of lung cancer. Symptoms include a cough, chest pain, and blood-streaked sputum. The pain is usually felt as a persistent ache unrelated to the cough. Lung cancer has a latency period of 15-20 years. Exposure to asbestos and cigarette smoking combine to create a significantly higher risk of developing lung cancer than would be expected from each substance alone. A smoker exposed to asbestos may have 50-100 times the risk of developing lung cancer compared to a nonexposed nonsmoker.

Mesothelioma
Mesothelioma is an extremely rare cancer of the thin membrane lining the chest and abdomen. Most incidences of mesothelioma have been traced directly to a history of asbestos exposure. Symptoms include shortness of breath, pain in the walls of the chest, or abdominal pain. Mesothelioma spreads very rapidly and is always fatal. It has a latency period of approximately 40 years. Mesothelioma is more likely to be found among workers who were first exposed to asbestos at an early age, such as in school.

Other Diseases
There are no known immediate effects associated with exposure to asbestos. There is no evidence that asbestos fibers can penetrate the skin. However, some workers have experienced irritation and a rash from exposure. There is some evidence suggesting that swallowing asbestos fibers may cause cancers of the digestive tract and may be carried to other parts of the body after being absorbed into the bloodstream.

Risks Associated with Low-Level Exposure
Asbestos is a known hazard based on studies of asbestos workers and laboratory animals exposed to

high doses. However, the risks associated with low level non occupational exposure (e.g., an occupant of a building containing ACM) are not well established. Risks from low-level exposure are based on extrapolation from workers exposed to high levels of asbestos and may not be reliable.

Based on a review of the literature EPA concludes that there is no safe or threshold level of exposure. Since asbestos fibers accumulate in the lungs, the risk of disease increases as exposure increases. Theoretically any exposure could result in an asbestos-related disease. Although the risk at very low exposures may be negligible, measures to reduce exposure and the accumulation of fibers should be followed.

Synergy Between Asbestos and Smoking
Cigarette smoking is the single most important known cause of lung cancer in humans. People who smoke 20 cigarettes a day increase their risk of developing lung cancer tenfold (10x). Asbestos insulation workers historically increase their risk of developing lung cancer five-fold (5x). These two factors working together have a synergistic effect: the smoker exposed to asbestos fibers is at least fifty times (50x) more likely to develop lung cancer than the general public.

Section III

Recognition of Damage
All suspect materials should be assessed to determine its condition and possible corrective or preventative measures to be taken. Materials can be inspected for damage caused by deterioration, physical damage, or water damage.

Material assessment should evaluate the quality of the installation, the adhesion of the friable material to the underlying substrate, deterioration, and damage. Evidence of debris on horizontal surfaces, hanging material, dislodged chunks, scrapings, indentations, or cracking are indicators of poor material condition.

Physical damage is the most apparent to the eye and typically results in a friable condition. Accidental or deliberate physical contact with the material can result in damage. Check for scrape marks from equipment, doors or furniture, graffiti, pieces dislodged or missing, finger marks and accumulation of material on horizontal surfaces near the material.

Water damage is usually caused by roof leaks, especially in buildings with flat roofs. Skylights can be a source of leaks. Water damage can also result from plumbing leaks or high humidity from pools, locker rooms and lavatories. Water can dislodge, delaminate, or disturb friable ACM that are otherwise in good condition and can increase the potential for fiber release by dissolving and washing out the binders in the material. Inspect the area for visible signs of water damage, discoloration or stains on the ACM, stains on or buckling of adjacent walls and floors, or areas where ACM have separated into layers or fallen down.
Material in good condition will have no visible damage or deterioration or show only limited signs of damage or deterioration or damage.

Material is considered in poor condition with the surface crumbling, blistered, water-stained, gouged, marred, or otherwise abraded in more than one-tenth of the surface where the damage is evenly distributed. Material is considered in fair condition with these conditions on less than one-tenth of the surface area. If damage is localized, use one-quarter as the threshold between poor and fair condition. Confirmation may be made by evidence of accumulation on surfaces beneath showing powder, dust, or debris similar in appearance to the suspect material.

Potential for future disturbances must also be considered, including the potential for contact by workers

or building occupants, influence of vibration, and potential for air erosion.

Section IV

Regulatory Programs
OSHA regulations are designed to protect workers who handle ACM. OSHA has set standards for the number of fibers that a worker can be exposed to, called the permissible exposure limit (PEL). Current OSHA regulations have set a maximum workplace concentration limit of 0.1 f/cc measured as an 8-hour time-weighted average. This is equivalent to approximately six fibers in a volume of air the size of a baseball. The time-weighted average is calculated by dividing the total exposure for a workday by eight hours. Exposures over 0.1 f/cc are allowed as long as they are balanced by exposures under 0.1 f/cc. The standard includes requirements for respiratory protection, medical surveillance, and work practices to reduce indoor asbestos levels.

OSHA regulations apply for asbestos exposure in demolition, removal, construction, alteration, and renovation activities. Work activities are classified according to the type of task and/or the materials the worker is exposed to. Most work shall be conducted in regulated areas that are demarcated, have limited access and respirator use required, where no smoking, eating or drinking is permitted, and are supervised by a competent person.

All workers exposed to asbestos must be trained in awareness, safe work practices, and must meet applicable federal and state regulations.

Section V

Safe Work Practices
Asbestos only presents a health hazard when damaged and fibers become airborne and are inhaled. The mere presence of ACM does not necessarily present a health hazard. All Aetna Bridge employees shall protect themselves and others from potential asbestos exposure through proactive preventative measures.

- Employees shall obtain site-specific information as to what building materials may be contacted during the course of job activity.
- Asbestos content of building materials shall be verified prior to disturbance.
- If encountered in a work area, employees shall communicate to facility owner or its representative the need for proper abatement prior to working in the area.
- No employee shall disturb asbestos-containing materials in any manner.
- Any damaged/friable materials discovered shall be immediately reported to the facility owner/ general contractor.
- Employees shall be trained in background information, health effects, damage recognition and site-specific work procedures. Refresher training will be completed on an annual basis.
- No employee shall be involved in any abatement activity.
- Employees shall respect asbestos abatement warning signs and barrier tape. No employee shall enter a regulated area.
- If working near a regulated asbestos abatement work area where containment has been breached, Aetna Bridge will remove its employees from their work area until the breach is repaired or until an initial exposure assessment is performed.
- Employees shall report any unsafe asbestos work practices to the facility owner, supervisor, or safety director immediately.

Asbestos Fiber Release
Special procedures are needed to reduce the spread of asbestos fibers after a release of fibers has

occurred, such as the partial collapse of an ACM ceiling or wall. If fibers are released through an incident, personnel should take the following steps to reduce asbestos exposure to occupants until trained asbestos personnel arrive:

- Prevent access to the contaminated area if possible.
- Shut and lock doors.
- Report the damaged ACM to supervision.
- Remain in the area to direct asbestos personnel to the site.
- Do not attempt to clean up a release.

Note: All personnel that possibly may be exposed shall undergo asbestos awareness training. If there are any questions on this, please contact the Safety Director.

Asbestos Definitions & Terminology

Abatement Contractor: That individual or entity under contract to perform the herein listed work which includes the abatement of asbestos, lead and bird feces and the demolition of asbestos and nonasbestos-containing building materials.

Air Monitoring: The process of measuring the contaminant content of a specific volume of air in a stated period of time.

Amended Water: Water containing a wetting agent or surfactant with a surface tension of 29 dynes per square centimeter when tested.

Air Sampling: For asbestos abatement work, it is the sampling of asbestos fiber concentrations within the asbestos control area and outside the asbestos control area which approximates the concentrations of asbestos in the theoretical breathing zone but is not actually collected in the breathing zone of an employee.

Asbestos: The term asbestos includes chrysotile, amosite, crocidolite, tremolite, anthophyllite and actinolite and any of these minerals that has been chemically treated or altered. Materials are considered to contain asbestos if the asbestos content is at least one percent of the material by weight.

Asbestos Abatement: The removal, encapsulation, enclosure, renovation, repair, demolition, or other disturbances of asbestos-containing material except activities which are related to the removal or repair of asbestos cement pipe and are performed by employees of a water company. Refer to 1926.1101 for additional definitions summarized as follows:

1. Class I involving thermal system insulation or surfacing,
2. Class II involving other asbestos materials other than thermal systems insulation or surfacing,
3. Class III repair work, including “Spot Repair” as defined by a state Department of Health in their standards for asbestos abatement, and
4. Class IV custodial and maintenance work.

Asbestos Control Area: That area where asbestos removal operations are performed which is isolated by physical boundaries which assist in the prevention of the uncontrolled release of asbestos dust, fibers, or debris. Two examples of an asbestos control area are: a full containment and a “glove bag.”

Asbestos Fibers: Those fibers having an aspect ratio of at least 3:1 and longer than 5 micrometers as determined by the National Institute for Occupational Safety and Health (NIOSH) Method 7400.

Asbestos Permissible Exposure Limit: 0.1 fibers per cubic centimeter of air as an 8-hour time weighted average as defined by 29 CFR 1926.1101 or other federal legislation having legal jurisdiction

for the protection of workers' health.

Atomic Absorption Spectrophotometer (AA): An instrument which measures the lead content in parts per million (ppm) using a lead source lamp, a flame capable of measuring the absorbed energy and converting it to a concentration.

Background: Normal airborne asbestos concentration in the asbestos abatement area.

Biological Monitoring: The analysis of a person's blood and/or urine to determine the level of lead contamination in the body.

Clean Change Room: An uncontaminated area or room which is part of the Worker Decontamination Enclosure with provisions for storage of a worker's street clothes and protective equipment.

Containment: A process for protecting workers, other individuals, and the environment by controlling exposures for asbestos fibers and/or lead dust and debris created during abatement.

Critical Barrier: Six mil polyethylene sheeting separating the work area from the nonwork area and used to cover fixed objects to prevent contamination.

Encapsulants: Specific materials in various forms used to chemically entrap asbestos fibers to prevent these fibers from becoming airborne. There are four types of encapsulants, as follows, which must comply with performance requirements specified herein.

- Removal Encapsulant (can be used as a wetting agent),
- Bridging Encapsulant (used to provide a tough, durable surface coating to asbestos-containing material),
- Penetrating Encapsulant (used to penetrate the asbestos-containing material down to substrate, encapsulating all asbestos fibers)
- Lock Down Encapsulant (used to seal off or "lock down" minute asbestos fibers left on surfaces from which asbestos-containing materials have been removed).

EPA: Environmental Protection Agency

Friable Asbestos Material: Material that contains more than one percent asbestos and that can be crumbled, pulverized, or reduced to powder by hand pressure when dry and nonfriable asbestos containing material that potentially can be broken, crumbled, pulverized, or reduced to powder as a result of asbestos abatement.

Glovebag Technique: Those asbestos removal and control techniques put forth in 29 CFR 1926.1101.

HEPA Filter Equipment: Filtered vacuum and/or exhaust ventilation equipment with a filter system capable of collecting and retaining asbestos fibers. Filters shall retain 99.97 % of particles 0.3 microns or larger as indicated in UL 586 for vacuums and 99.99% for exhaust vent equipment.

HEPA Vacuum Equipment: Vacuum equipment with a HEPA filter system for filtering the air effluent from the unit.

High Efficiency Particulate Air or HEPA: A filtering system capable of filtering out particles of 0.3 microns or greater diameter from a body of air at 99.97% efficiency or greater.

IH or Industrial Hygiene Consultant: An industrial hygienist employed to monitor, sample and/or inspect the work separate from the contractor who is currently certified for comprehensive practice by the American Board of Industrial Hygiene.

Negative Air Units or Negative Air Pressure Equipment: A portable local exhaust system with filtration used to create negative pressure in a contaminated area (negative with respect to adjacent uncontaminated areas) and capable of maintaining a constant discharge of filtered air outside and creating suction so that air flow direction moves from the uncontaminated areas into the work area.

NIOSH: National Institute for Occupational Safety and Health.

Nonfriable Asbestos Material: Material that contains asbestos in which the fibers have been temporarily locked in by a bonding agent, coating, binder, or other material so that the asbestos is well bound and will not normally release asbestos fibers during any appropriate use, handling, storage, or transportation. It is understood that asbestos fibers will be released under other conditions such as demolition or removal.

OSHA: Occupational Safety and Health Administration, part of the Department of Labor.

Personal Sampling: Air sampling to determine asbestos fiber concentrations within the breathing zone of a specific employee, performed in accordance with the appropriate OSHA regulations.

RCRA: Resource Conservation and Recovery Act.

Regulated Area: The work area.

Spot Repair: Any asbestos abatement performed within a facility involving no more than three linear feet or three square feet of asbestos-containing material.

Substrate: The underlying surface which remains after the paint is removed.

TCLP: Toxicity Characteristic Leaching Procedure as specified by EPA RCRA regulations (CFR 40 Part 261).
TEM: Transmission Electron Microscopy.

Time Weighted Average (TWA): An 8-hour time weighted average of airborne concentration of asbestos fibers.

Treatment: Any method, technique or process designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to render it nonhazardous, or to make it safer to transport, store or dispose of or amenable for recovery, storage, or volume reduction.

TSP: Tri-Sodium Phosphate used in cleaning.

Wet Cleaning: The process of eliminating lead contamination from building surfaces and objects by using cloths, mops or other cleaning tools which have been dampened with TSP and water, and by afterwards disposing of these cleaning items as lead-contaminated waste.

Wetting Agent: That specific agent used to reduce airborne asbestos levels by physically bonding asbestos fibers to material to be removed. An equivalent wetting agent must have a surface tension of at least 29 dynes per square centimeter as tested in accordance with ASTM D 1331.

Work Area: An area where abatement operations are performed which is isolated by physical boundaries to prevent the spread of dust or debris; any designated rooms, spaces or areas of the project in which abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A fully contained Work Area is an area which has been sealed, plasticized and equipped with a Decontamination Enclosure System.

X-Ray Fluorescence (XRF) Analyzer: An analytical instrument which measures lead concentration in painted surfaces in milligrams per square centimeter (mg/cm2) using a radioactive source within the instrument. There are two types of XRF analyzers commonly available which require distinct and different testing protocols:

- Direct Read
- Spectrum Analyzer.

Responsibilities of Abatement Contractor

A. Prior to the commencement of any abatement work under any contract, a certified, licensed contractor company representative shall:

COMPLY WITH ALL STATE, LOCAL AND FEDERAL GUIDELINES

- Submit a schedule indicating proposed methods and sequence of operations.
- Attend preconstruction conferences, walk-through in the company of the project owner, manager, architect, and industrial hygienist.
- Obtain all necessary permits and licenses in conjunction with asbestos removal, hauling and disposition, and furnish timely notification of such actions as required by federal, state, and local authorities. The contractor shall ensure all licenses and permits are current.
- Submit a written respiratory protection program.
- List all equipment to be used on the job including a description of all respiratory protective equipment by make, model number and NIOSH certification number.
- Submit SDS's for any chemical to be used on the job.

- Submit a proposed plan for any evacuation or treatment procedures in the event of fire or safety and medical emergencies, including the manner in which employees are notified of any emergency, procedures to account for employees after emergencies, name of person appointed as safety coordinator and the posting of telephone numbers of emergency response people.
- Submit a schedule of proposed dates for all asbestos work areas.
- Submit a plan indicating the location of the decontamination facilities, negative pressure filtration systems, materials handling methods and routes for removal of asbestos-containing materials from the building.

Lead Awareness/Hygiene Program

Purpose

This program is developed to protect all employees from lead exposure and also to protect the families of employees from any lead exposure.

Inhalation and ingestion of lead are two major routes of exposure by which lead can be absorbed into the body. It is therefore important to ensure that preventive measures are taken to decrease worker exposure.

The most effective way to accomplish this goal is by implementation of an effective personal awareness/hygiene program. When properly followed, this program will lower the chance of ingestion and inhalation of lead, the spread of lead contamination to other areas and take-home lead.

Overview

Possible sources of lead-containing materials include demolition materials, leaded glass, CRTs, batteries, circuit boards, pipes, and leaded solder. Painted coatings are a common source of lead, particularly those applied before 1978, although age of paint cannot be used as a reliable indication of lead content.

Common symptoms of acute lead poisoning include loss of appetite, nausea, vomiting, stomach cramps, constipation, difficulty sleeping, fatigue, moodiness, headache, joint or muscle aches, and anemia. Chronic overexposure to lead may cause severe damage to bone marrow, and to nervous systems, and urinary and reproductive systems.

When welding, cutting, or grinding leaded paint coatings, workers will be protected from absorbing or ingesting lead from fumes or dust. An initial assessment will establish the exposure level by monitoring air samples from the work area. If the air samples show an 8-hour TWA exposure level of less than 30 µg/m3 (action level), a record of the determination will be made to include the date, location of determination, and name and social security number of each person monitored. Further determination is not required unless a change of equipment, process, control, personnel, or a new task has been initiated that may result in additional employees being exposed to lead at or above the action level.

Workers will be protected from lead fumes or dust while the initial determination of exposure level is conducted. Respirator protection adequate for the specific task will be used in accordance with 29 CFR 1926.62(d)(2) until results of exposure level testing is completed. Employees will be notified in writing of the results of exposure level monitoring, and if the exposure is at or above 50 µg/m3 (PEL), the written notice will include corrective action to reduce exposure below that level.

If air monitoring results show employee exposure to be at or above the action level, air monitoring shall be repeated at least every 6 months. If exposure is above the PEL, air monitoring shall be repeated at least every 3 months. Two consecutive measurements taken at least 7 days apart are required to drop to a lower scheduled frequency. No further sampling is required when samples indicate exposure below the action level.

All potentially exposed employees will be provided with awareness, Hazcom and respirator training as well as adequate respiratory protection, appropriate PPE, and equipment, change areas, and handwashing facilities. Hazcom training will include topics on 29 CFR 1926.62 and appendices; the specific nature of operations which could result in exposure to lead; the purpose, proper selection, fitting, use, and limitations of respirators; the purpose and a description of the medical surveillance program, and the medical removal protection program; the engineering controls and work practices to be used in the work area; the contents of any compliance plan in effect; warning against routine use of chelating agents; and employee’s right of access to records under 29 CFR 1910.20. Training will consist of awareness training at time of hire, initial training before exposure, and an annual refresher.

Where possible, appropriate engineering controls shall be used to control the airborne lead exposure. Examples include portable welding fume extractor equipment used in accordance with manufacturer's instructions, a grinder with a dust-collecting shroud attachment used in conjunction with a HEPA vacuum filter to collect dust from grinding operations. Dust and fumes collected will be double-bagged, labeled and disposed of as hazardous waste.

Warning signs will be posted in the work area where the PEL is exceeded. Text of sign to include 4

lines**: WARNING, LEAD WORK AREA, POISON, NO SMOKING OR EATING.**

Workers will be provided with appropriate clothing, including coveralls, hoods, gloves, shoes, or shoe coverings. Clothing will be repaired or replaced as needed to maintain effectiveness.

Protective clothing will only be changed in an area designated for this purpose. A closed, labeled container will be used for clothing to be cleaned, laundered, or disposed of. Protective clothing and equipment will not be removed from the workplace.

No smoking materials or food and beverages will be permitted in the work area. Workers will not consume food or drink, smoke or apply cosmetics while in the changing area or work area. Adequate cleansing agents and towels will be provided in the changing area. Workers must wash hands and face before eating, drinking, or smoking. Lunchroom facilities or eating areas will be kept as free as possible from lead contamination. Workers will not enter the eating area with protective clothing or equipment unless surface lead dust has been removed by vacuuming, downdraft booth, or other cleaning method that limits dispersion of lead dust.

Initial medical surveillance, including blood samples and analysis for lead and zinc, will be provided for all workers exposed to lead on any day to levels at or above 30 µg/m3 TWA. Continuing medical monitoring and surveillance will be conducted for all workers exposed to lead to levels at or above the action level for more than 30 days in any consecutive 12 months. Medical monitoring and surveillance will be done in accordance with 29 CFR 1926.62(j) and 1926.62(k).

The blood sampling and monitoring should be conducted every 6 months until two consecutive blood samples and analysis are acceptable. The sampling and monitoring should be performed at least monthly during the removal period. Any employee with elevated blood-lead levels should be temporarily removed. Employees should be notified in writing within five days when lead levels are not acceptable. The standard requires temporary medical removal with Medical Removal Protection benefits.
A site-specific compliance program to address means of engineering and work practice controls, air monitoring, and description of each operation in which lead is emitted will be prepared and revised and updated annually.

Facilities
A Wash Area/Changing Facility will have the following features:
- Clean room, dirty room, and shower
- Clothes racks in dirty and clean rooms with storage cabinets
- All interior walls and ceilings made of FRP (fiberglass reinforced plastic) for long life and ease of cleaning
- Floor drains in all rooms to allow the entire interior to be hosed down for thorough cleaning
- Holding tank(s) for wastewater collection

A Wash Area/Changing Facility will be utilized to provide the following for workers exposed to lead:
- Clean Changing Room – An area for workers to change from street clothes into clean work clothes and protective gear. A storage area for street clothes will be provided in the clean room.
- Dirty Changing Room – An area for workers to remove and either dispose of or deposit contaminated work clothes and boots before proceeding into the washroom. This room will provide facilities for storage of lead-contaminated protective work clothing and equipment.
- Shower Facilities – Individual shower units for workers to take a thorough shower before the end of the work shift.

Clean Lunch Areas are to be used by workers who are exposed to lead levels at or above the PEL. If this is inside a lead-contaminated area, it should have a filtered air supply available to workers.

Lavatories will be provided on-site for both males and females, according to OSHA 29 CFR1910.141.

Procedures
The following procedures are to be followed at the beginning of the work shift, entering, and exiting the lead work area and at the end of the lead work shift.

Beginning of Work Shift: All workers that will be exposed to lead work need to do the following steps prior to entering the lead work area:
- Enter clean change room to remove street clothes and store them in appropriate lockers,
- Change into required clean work and protective clothes, and
- Collect additional clean protective gear (respirators, boots, hard hats, safety eye protection and gloves).

Entering Lead Work Areas: All items listed below will be worn prior to entering lead work area as required:
- Appropriate respirator for the particular job,
- Protective coveralls and/or disposal suits,
- Gloves,
- Boot covers (sandblasting operators are exempt from wearing boot covers for safety reasons),
- Hard hats,
- Safety eye protection, and
- Any other personal protective equipment as required

Exiting Lead Work Areas:
Not in containment – Before leaving any lead work area, all workers need to follow these steps:
- Remove first layer of protective clothing inside dirty room, remove boot covers and place all in closed containers for lead waste,
- Vacuum second layer of clothing and respirator or hood before taking them off, and
- Place respirators in appropriate storage cabinet or gang box.

Exiting:
- The worker will vacuum the blasting hood before disturbing the face fit in the presence of the supervisor and, if needed, with the supervisor's assistance,
- The blasting hood will then be placed in the gang box,
- Overalls will be vacuumed off utilizing a HEPA vacuum, and
- The worker will wash his/her hands and face at the hand-washing facilities before eating, drinking, smoking, or applying cosmetics.

NOTE: No worker inside of a lead work area will be allowed to use tobacco products, consume any food or beverage, or apply any cosmetics. Worker will first need to exit the work area, using proper procedure. Outside the work area, the workers must wash face and hands with soap and water.

***End of Work Shift*:**
Not in containment – All workers will be transported in a truck from containment to hygiene trailer. All workers in any sandblasting operation will do the following before leaving containment and job site at the end of their shift:
- Overalls will be vacuumed off using a HEPA vacuum,
- Work shoes which are contaminated with lead should be vacuumed before exiting the containment,

- At the end of shift, workers are required to vacuum the hood before taking them off and shall carry them to the dirty room in wash/changing room facility for decontamination and/or cleaning,
- Clothes and work boots contaminated with lead dust or fumes should be placed in a closed container properly labeled for laundering and/or cleaning purposes inside the dirty room,
- Take a shower and dispose of towels as lead-contaminated clothes for laundering or cleaning as appropriate,
- Place hood in proper storage area in clean room, and change back into street clothes in clean room.

NOTE: Under no circumstances will anyone be allowed to leave the work site wearing contaminated clothing. Contaminated clothing may only leave the site to be professionally laundered or disposed of in compliance with federal, state and local regulations.

Housekeeping Procedures

The following housekeeping procedures will be utilized to maintain all surfaces as free as practicable of accumulations of lead dust:

- HEPA vacuums shall be used to clean the surface areas from lead dust accumulation where applicable.
- For surface areas that are contaminated inside the washroom/changing facility and air lock space: Trisodium Phosphate (TSP) solutions may be utilized for this cleaning. The supervisor of each work group will be responsible for the cleaning procedure of hygiene trailers. The transportation vehicle to transport workers will be vacuumed and cleaned with TSP solution on a weekly basis.
- Swipe sampling will be performed in the hygiene trailers and other surface areas at the job site as needed. Contamination of lead dust at 200 micrograms per square foot will have to be recleaned. The sampling results can be utilized to ensure that employees are not taking lead home.

Decontamination of Industrial Hygiene Equipment

The following procedures will be used when changing or removing personal samples and for decontamination of the equipment:

- Industrial Hygienists will change into protective clothing and necessary equipment.
- Appropriate respirator will be worn while removing/replacing used personal samples.
- The used cassettes shall be placed into zip-lock plastic bags for transportation to the lab.
- Equipment will be wiped down with wet cloth/HEPA vacuum before being moved to decontamination facility to be cleaned.
- Worker will remove protective clothing and shower before changing back into street clothing.
- At the end of the job, the disposable equipment such as mop heads, sponges and rags should be disposed of as lead-contaminated waste.
- Reusable equipment such as power and hand tools, generators and vehicles should be cleaned once a week or before leaving the lead work area.

Electrical Safety Training

Employees who face a risk of electric shock but who are not qualified persons shall be trained and familiar with electrically related safety practices. Such training shall include safety-related work practices that pertain to their job assignments.

- Premises wiring, wiring for connection to supply, and other wiring, including fiber optic wiring where such wiring is made along with electric conductors
- Working under overhead lines
- Vehicular and mechanical equipment clearance
- Deenergized parts
- Energized parts
- Restriction of work on any energized equipment

- Lockout and tagout
- Clearance distance
- Illumination
- Confined or enclosed spaces
- Conductive materials and equipment
- Portable ladders
- Conductive apparel
- Housekeeping duties
- Portable electric equipment, handling, and visual inspection
- Grounding type equipment
- Conductive work locations
- Connecting attachment plugs
- Electrical power and lighting circuits
- Overcurrent protection modification
- Occasional use of flammable or ignitable materials

Accident & Incident Procedures

While all incidents should be investigated, the extent of such investigation shall reflect the seriousness of the incident utilizing a root cause analysis process or other similar method. All employees shall be trained in their roles and responsibilities when responding to an incident, to include a minimum of incident awareness, recognition of existing hazards, and avoidance of additional injury or damage. If an accident has occurred on a job site, or if an Aetna Bridge employee receives a work-related injury, the below-listed procedures must be followed:

Determine if the injured party needs emergency medical attention. ***If the injured party is seriously injured, call 911 immediately.*** As soon as practical, notify the Safety Director. The project owner/ client will be notified within 24 hours of all serious incidents and accidents resulting in injury or property damage. If an accident results in a fatality OSHA Area Office must be notified within 8 hours. If a hospitalization, amputation or loss of an eye, the local OSHA Office must be notified within 24 hours. Complete Aetna's First Report of Injury promptly. ***See First Report of Injury Form and Motor Vehicle Accident Form.**

Accident investigation will be conducted by the Superintendent and/or Safety Department representative. An accident report must be completed and should include:

- Go to the scene of the accident as soon as possible.
- Talk with the injured person if possible. Talk to witnesses. Stress getting the facts and not placing blame or responsibility. Ask questions. Get names, addresses and phone numbers.
- Listen for clues in the conversations going on around you. Unsolicited comments often have merit.
- Encourage individuals to give their ideas for preventing a similar accident.
- Study possible causes for unsafe conditions and acts.
- Confer with knowledgeable individuals about possible solutions.
- Write up your accident form report giving a complete and accurate account of the accident and submit it to the Safety Director promptly.
- Follow up to make sure accident-causing conditions are corrected.
- Publicize corrective action taken so that all affected parties may benefit from the experience.

In order for the supervisor's report to be effective, it should contain as a minimum a detailed answer to the following questions:

- What was the employee doing? Explain in detail the activity of the employee at the time of the accident.
- What happened? Indicate in the appropriate location all the detail that took place, describe the accident, the type of injury, the part or parts of the equipment or vehicle, or body affected and whether the employee was wearing appropriate safety devices.
- What caused the accident? Explain in detail the condition, act, malfunction, etc., that caused the accident. It is possible to have more than one reason or cause for an accident.
- What can be done to prevent a similar accident? Indicate corrective action to prevent reoccurrence.

The following paperwork must be completed as soon as possible and sent to the Aetna Bridge office:

- Aetna's First Report of Injury or Motor Vehicle Accident Report
- List of all witnesses. If they are not employees, include their address and telephone number.

The injury must be documented on the following reports:

- OSHA 300
- Superintendent's Daily Logs

If appropriate, photographs should be taken and sent to the Safety Director as soon as possible.

Emergency Action Plan

Although there are and may be numerous types of emergency situations, each Aetna Bridge job site will evaluate each site to develop and implement an Emergency Action Plan. Aetna Bridge requires all Managers and Superintendents to be able to respond to four major areas:

General Disasters – Such as fires, explosions, etc.

Natural Disasters – Such as floods, tornadoes, severe storms, etc.

Civil Disorders – Such as strikes, civil disturbances, etc.

Emergency Spills – Such as hazardous chemicals, etc.

Fire and Explosions

The following is a general plan of action for each Superintendent which can be modified more specifically to each job site.

- Notify everyone in the vicinity that there is a fire.
- Notify the local fire department immediately if the fire cannot be extinguished safely.
- Evacuate the job site as necessary and have all personnel respond to a preassigned place of assembly.
- Have SDS sheets available for the fire department if chemicals or hazardous materials are stored or present on the job site.
- Designate a spokesperson for any emergency personnel inquiries and DO NOT speak to media.
- Notify the Project Manager and Corporate Safety Director of the incident immediately.

Natural Disasters

If there is advance warning:

- Advise all job site personnel of the coming danger and see to it they are in a safe location on the site or evacuated.

If there is ample time, each site should have access to the following:

First-Aid Equipment	***Drinking Water***	***Portable Lighting***
Portable Generator	***Small Compressor***	***Portable Sanitary Facilities***

Civil Disorders
In the event of a civil disturbance, the Project Manager and Superintendent should instruct all personnel to remain distant from the demonstrators and not get involved.

In the event of a strike or labor demonstration, workers who are not involved in the action should not agitate the demonstrators. All workers should be removed from the demonstration area. None of our employees should be used to calm the situation.

News Media
All inquiries will be handled by a designated Aetna Bridge Company spokesperson from corporate headquarters unless otherwise instructed.

Emergency Spills
In the event of a spill:
- Notify the Project Executive or Corporate Safety Director immediately. If they are not available, contact a local environmental agency for further instructions.
- Clear the location except for those needed to deal with the spill.
- Control or stop the source of the spill.
- If required, construct an enclosure around the area of the spill.

Evacuation Plan

Warning signs will be posted on the job site to indicate the evacuation alarm signal and the evacuation assembly area. Post copies of the example warning signs provided in this manual or similar. Warning signs should indicate at a minimum the distinctive emergency signal to be used and the muster point for assembly.

In the event of a site evacuation, each subcontractor foreperson is responsible to account for the safe evacuation of all his employees and will provide the site superintendent with a list of names of anyone not present and counted.

EVACUATION PLAN

IF YOU HEAR THREE (3) LOUD BLASTS OF AN AIR HORN, EVACUATE THE CONSTRUCTION AREA IMMEDIATELY AND REPORT TO THE AREA PREDETERMINED BY THE SUPERINTENDENT

EVACUATION PLAN

IF YOU HEAR A STEADY SOUNDING ALARM, EVACUATE THE CONSTRUCTION AREA IMMEDIATELY
AND REPORT TO THE AREA PREDETERMINED BY THE SUPERINTENDENT

Return to Work Program

We are committed to returning our employees that have been injured on the job to their former or modified position as soon as medically feasible.

If you should sustain an injury, contact your supervisor immediately. Arrangements will then be made for immediate medical attention, either on the site or at the nearest health care facility.

If outside medical attention is required and you are unable to return to work the same day, please contact your supervisor or the main office with all pertinent information regarding your injury and the time you expect to remain out of work. We must report this information to our insurance company as soon as possible.

We will maintain contact with you throughout your recovery. Your position will remain open and, once you have received medical clearance, you may resume your previous position or “light duty” position, as permitted by your treating physician.

Upon your return to work, we will make every effort to accommodate any restrictions deemed medically necessary. We will endeavor to develop alternative work or “light duty” assignments in conjunction with your physical capabilities. Modified work can be either full- or part-time and will be specific and in writing. Work capabilities, whether normal or modified, will require the approval of the treating physician.

Restrictive duty may be required until you are capable of resuming your normal duties. This may or may not be related to your normal preinjury position.

Employee Training

Each new employee shall receive a thorough safety and health orientation, which gives the employee the basic information about their responsibilities as well as Aetna Bridge Company under Federal OSHA and other applicable safety rules and regulations to include the following:

Vehicle & Equipment Policies	Accident/Injury Reporting
HAZOM	Emergency Procedures & Medical Facilities
Dust, Fumes (Lead, Silica)	Ergonomics
EEO/AA	Electrical Safety
Ladder Use & Set-up	Personal Fall Protection Use w/Anchoring awareness
PPE - Ear, Face, Eye, Head, Hand	Trenching & Excavation (where applicable)
Respiratory Protection	Rigging/Cranes (where applicable)
Housekeeping	Fire Protection
Fire Protection	Site-Specific Awareness

Hazardous Substances

Employees must be trained in three basic areas:
- The law, as it affects employees' rights and safety.
- How to read an SDS.
- The specific toxic or hazardous substances on site to which they may be exposed.

1. The law – show the employees the Right to Know poster and read its basic features to them.
2. How to read an SDS – show the employees the SDS sheets and read its basic features to them.
3. Individual toxic or hazardous substances on site.

- You must instruct each employee regarding each toxic and hazardous substance on site to which he or she is or may be exposed.
- This training may be general (need not be technically precise) and by family group. For instance, discuss all epoxies and adhesives at the same time.
- Training must be by a "competent individual" (Regulation 21.07:1). A foreperson is considered competent due to experience or education, provided he/she is taught what to teach under the Right to Know Law as outlined on this page.
- Suggestion: Take the SDS's you have on site and arrange by work crew and by general family group. Then explain as described in SDS; by name, location in workplace, first-aid treatment and antidotes, proper and safe handling, and health effects.
- Maintain a record of all training by:
  - Employee name and Social Security number
  - Date of training
  - Name of instructor
  - Topics covered, including individual SDS's
  - Employee to sign affidavit

Forward record of training to main office.

OSHA Hazardous Communication (Safety Data Sheets)

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSD's) to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/effects, acute, delayed; required treatment.
Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); ACGIH Threshold Limit Values (TLVs); and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the SDS where available as well as appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability, and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*

Section 13, Disposal considerations*

Section 14, Transport information*

Section 15, Regulatory information*

Section 16, Other information, includes the date of preparation or last revision.

* **Note**: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

Supplemental Section
Crane Lift Plan Form

Standard Crane Lift Plan for Aetna Bridge Jobsites

Pre-Operation Information

Project: _____ **Location:** _____

Date of Lift: _____ **Superintendent:** _____

Contractor: _____ **Contact Name:** _____

Phone Number: _____ **Cell Phone Number:** _____

Crane Owner: _____ **Phone Number:** _____

Signal Person Name: _____

Operator Name: _____ Aetna Bridge Safety Director: Joan Zapatka
jzapatka@aetnabridge.com/ 401-378-1348

Rigger Name: _____

Crane Identification

Is this a 2 crane lift? ☐ **Yes** ☐ **No** **Note: If yes, please fill out and attach another worksheet for the second crane**

Configuration: **Assembled** ☐ **Disassembled** ☐

Manufacturer: _____ **Unit Number:** _____

Model Number: _____ **S/N:** _____

Crane Type: ☐ **Lattice Boom** ☐ **Hydraulic** ☐ **Rough Terrain** ☐ **Truck Mounted** ☐ **Mobile Tower** ☐ **Crawler Mounted**

Crane Information	in ft, lbs
A. Maximum Operations Radius	
B. Main Boom Length	
C. Clearance Between Boom & Load	
D. Jib Offset	
E. Attachments (Luffine Jib, Superlift)	
F. Counterweight Configuration	

H. Distance from Power Lines

Crane Specifications	
L. Crane Capacity	
M. Anticipated Weight of Load	
N. Total Weight from Rigging Information	
O. Total Weight of Lift (M+N)	
P. % of Crane's Capacity (O/L*100)	

Site Conditions	
G. Ground Conditions	
H. Distance from Power Lines	
I. Ground Stability	
J. Underground Utilities	
K. Blocking or Mats Needed	

Rigging Information **Describe in Detail: Rigging (lifting beams, spreaders, etc. Wire Rope, Slings and Rigging Accessories (block/ball, boom attachment, etc.**

Type	Size	Length	Load Rating	Weight (lbs)
Steel				
Headache Ball				
		Totals		

Maintenance of Traffic

Is MOT required: ☐ Yes ☐ No

If Yes, please describe:

Safety Equipment

Required Safety Equipment: Hard Hat
Safety Glasses Safety Vests Leather Gloves

Other Applicable Safety Equipment:
Hearing Protection
Fall Protection
CDC guidance for Face Covering during Covid-19 Pandemic

Documentation

All must be present before the crane is permitted to begin work

On the Crane: Operator's Manual

Attach Copies: Operator Certification
Rigger Qualification
Signal Person Qualification
Annual Certification
General Lift Plan
Critical Lift Plan (if crane capacity is in excess of 75% and/or all 2 crane lifts)

Worksheet Completed By: _____

Print Name

_____

Signature

Date

Please complete this form as soon as possible for submittal to Joan Zapatka, Aetna Bridge's Safety Director, for review and follow-up. This form must be submitted as soon as possible, prior to the commencement of work. Submit to:

Aetna Bridge's Safety Director at
jzapatka@aetnabridge.com.
401-378-1348; for questions.

Written Warning Letter

POLICY: All violations of Aetna Bridge safety policies shall be dealt with in the following manner. A safety violation may occur when not following verbal or written safety procedures, guidelines or rules, when engaging in horseplay, failure to wear selected PPE, etc. Each violation will be reviewed on a case-by-case basis, taking the particular circumstances and safety record of the employee into account. Review includes meeting with employee(s) to discuss the infraction, the rule or procedure that was violated, and the corrective action to be taken.

Action shall be taken in the following sequence:

VERBAL WARNING – A verbal warning shall be given by the Foreperson or Supervisor as a result of a minor infraction. The Foreperson or Supervisor shall keep a record of verbal warnings and they are to be forwarded to the Safety Department each week.

WRITTEN WARNING – Written warnings shall be issued by the Safety Department when a review of verbal warning records shows the need for such action. Written warnings shall be issued after a verbal warning or for a major violation without the need for a previous verbal warning. The written warning shall be kept in the employee's personnel file.

SUSPENSION – A suspension may result after a written warning. Gross violations may warrant suspension without a previous written warning. Aetna Bridge management shall make the final decisions on suspensions. The employee will not receive pay for the term of the suspension.

DISMISSAL – Continued safety violations or imminent danger violations can result in dismissal.

Date, Location & Time of Incident: _____

Employee Name: _____

Description of Incident: _____

_____

Applicable policy, program, or procedure: _____

Warning Level: [ ] Verbal [ ] Written [ ] Dismissal
[ ] Suspension – # days _____ effective date _____
Retraining required: [ ] No [ ] Yes [ ] Refresher [ ] Comprehensive (see notes attached)

This warning letter is being issued to improve workers' awareness of personal responsibility in following federal and local safety regulations and site-specific safety policies. Failure to meet these requirements may result in further actions, up to and including dismissal.

Supervisor Name/Title:_____ Signature & Date:_____

Employee Signature & Date: _____


AETNA
Aetna Bridge Company

Aetna Bridge First Report of Injury Form

EMPLOYEE PERSONAL INFORMATION - to be completed by EMPLOYEE (PLEASE PRINT)

THE INFORMATION BELOW WILL REMAIN CONFIDENTIAL AND IN COMPLIANCE WITH HIPAA LAWS

Name: _____ Social Security #: _____-_____-_____ Birth Date: _____/_____/_____

Address: _____ City: _____ State: _____ Zip: _____

Home Phone #: (_____) _____ Mobile Phone #: (_____) _____ Marital Status: **M D W S** (circle one)

JOB TITLE: _____ Date of Hire: _____/_____/_____ JOB LOCATION & #: _____

Shift currently working: ☐ 1st ☐ 2nd ☐ 3rd Start Time of Shift: _____ ☐ AM ☐ PM to _____ ☐ AM ☐ PM

GENERAL INJURY INFORMATION - ALL ITEMS to be completed BY IMMEDIATE FOREMAN

Date of Injury: _____/_____/_____ Time of Injury: _____ ☐ AM ☐ PM Place Where Injury Happened? _____

When the injury was reported to the Foreman: _____/_____/_____ @ _____ ☐ AM ☐ PM

Name of Foreman/PM the employee reported the injury to: _____ Contact # (_____)_____

Date and time this report was completed: _____/_____/_____ @ _____ ☐ AM ☐ PM

MEDICAL INFORMATION - to be completed by IMMEDIATE FOREMAN

Was more than on-site first aid required? ☐ Yes ☐ No Are we working for a GC ☐ Yes ☐ No IF YES WHOM? _____

Phone Number called to report: (_____) _____ NOTE/NAME: _____

Did employee require to be seen at clinic or emergency room? ☐ Yes ☐ No

IF yes, where were they taken? _____

Please provide name, location and Doctor/ Physician employee was seen by ~

Did Foreman accompany the employee to the medical facility? ☐ Yes ☐ No IF No, who did? _____

THE INJURED EMPLOYEE WAS: (Attach all medical documentation)

☐ Returned to work at full duty capacity

☐ Returned to work with restrictions - Can we accommodate restrictions ☐ Yes ☐ No IF NO Call Safety Department Immediately!

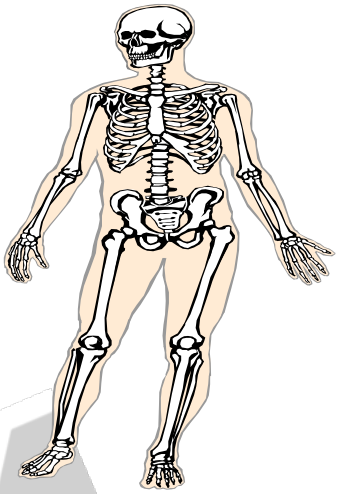
☐ **NOT** allowed to return to work until:

_____

☐ Prescribed Medication: ☐over the counter ☐ Prescription Medication written by Dr.

EMPLOYEE'S STATEMENT OF INCIDENT - TO BE COMPLETED BY THE EMPLOYEE

Please describe the incident to the best of your ability. BE SPECIFIC. Include information such as the work you were assigned to do and what you were doing. Please address all contributing factors such as unsafe conditions or acts, human behavior, or the weather, etc. *Include right or left, front or rear if need be*. (**Use second page to point out area of injury).**



EMPLOYEE Print Name: _____ Date: _____

EMPLOYEE Signature: _____ ANY WITNESSES? Name(s): _____

Aetna Bridge strives for a zero-accident workplace. It is a goal that Aetna Bridge is committed to. As such, it is required that a thorough accident investigation be completed. In doing so, please address all contributing factors, i.e., unsafe conditions of the work area (Poor housekeeping, inadequate lighting-guarding, lack of training) unsafe acts (employee failed to wear proper PPE, etc.). Human factors such as fatigue, inattentiveness, the weather, etc. In the space below provide the conclusions to the investigation and the corrective actions that were taken, if any, as a result of this injury. Attach any forms, pictures to this document.

Site Foreman's Signature & Date	Project Manager's Signature & Date	Safety Director's Signature & Date

SAFETY DEPARTMENT USE ONLY

☐ LOST TIME

☐ RECORDABLE ☐ Insurance Report complete

☐ REPORTABLE ONLY

Safety Director contacted prior to the employee leaving medical facility ☐ Yes ☐ No

MVA Accident Form

Aetna Bridge Company

WHEN A VEHICLE ACCIDENT HAPPENS:

DO NOT DISCUSS THE ACCIDENT <u>WITH ANYONE</u> OTHER THAN THE POLICE OR AN AETNA BRIDGE REPRESENTATIVE.

- ❑ **STOP AT ONCE** to investigate. Be a "Good Samaritan" if possible and help any injured individuals. However, never put yourself in danger.
- ❑ **NEVER ADMIT GUILT.**
- ❑ **ALWAYS CONTACT THE POLICE** and obtain a copy of the Accident Information Summary from the Police Officer.
- ❑ **PHONE YOUR SUPERVISOR AND THE SAFETY DEPARTMENT AT ONCE:**
  Joan Zapatka (401) 378-1348 Mobile Telephone
- ❑ **PROTECT THE SCENE OF THE ACCIDENT** by placing flags, flares, or reflectors IF you have them. Turn on your vehicle's hazard lights, strobes.
- ❑ **IDENTIFY YOURSELF**. Give your name, address and license number to the other party.
- ❑ **WITNESSES**. Get the names and addresses of all witnesses to the accident.
- ❑ **COMPLETE AND RETURN THIS WRITTEN REPORT TO YOUR SUPERVISOR IMMEDIATELY.**
- ❑ **PHOTOGRAPH** damage to any vehicle involved in the accident and take pictures of the entire accident scene to capture the BIG PICTURE. (Intersections, Traffic, Skid Marks, Traffic Signs, Traffic Lights, Debris from the Impact, etc.)
- ❑ **DO NOT DESTROY/DELETE PHOTOS - Forward to the Safety Director ASAP**

Aetna Bridge First Report of Motor Vehicle Accident

GENERAL INFORMATION

Date of Accident: ____/____/____ Time: ____ : ____ ☐ A.M. ☐ P.M. Date of Report: ____/____/____

Accident Location: _____ City: _____ State: _____

Was the accident reported to police? ☐ Yes ☐ No If yes, report number: _____

Were any violations/citations issued? ☐ Yes ☐ No If yes, please provide a copy.

Did a subcontractor contribute to this accident? ☐ Yes ☐ No If yes, explain: _____

_____

AETNA BRIDGE's Vehicle

Driver's name: _____ Cell#: _____ Job Title: _____

Division or Project assigned to: _____ Driver's or Project Manager: _____

Date Supervisor/MGR. Informed of Accident: ____/____/____ Time: ____ : ____ ☐ A.M. ☐ P.M.

Company asset number: _____ Plate Number: _____

Seat belts in use: ☐ Yes ☐ No Was the driver injured: ☐ Yes ☐ No

Type and condition of pavement: _____

Weather: _____ Speed of vehicle at time of accident: _____ Posted speed: _____

Are photos available of the scene/damage: ☐ Yes ☐ No

Describe damage to your vehicle:

_____

_____

OTHER VEHICLE

Driver's Name: _____

Address: _____

Phone: _____

Describe Vehicle (year, make, model, license plate):

_____

_____

Was the driver injured? ☐ Yes ☐ No

Describe damage location to vehicle: _____

Are photos available of the damage? ☐ Yes ☐ No

Were there any passengers in this vehicle? ☐ Yes ☐ No If yes, please provide the following information:

Passenger #1

Name: _____

Address: _____

Phone: _____

Is this person injured? ☐ Yes ☐ No

Passenger #2

Name: _____

Address: _____

Phone: _____

Is this person injured? ☐ Yes ☐ No

WITNESS INFORMATION

If there were witnesses to this accident, please provide the following information:

Witness #1

Name: _____

Address/Phone: _____

Please describe your observations of the accident:

_____

Witness Signature & Date

Witness #2

Name: _____

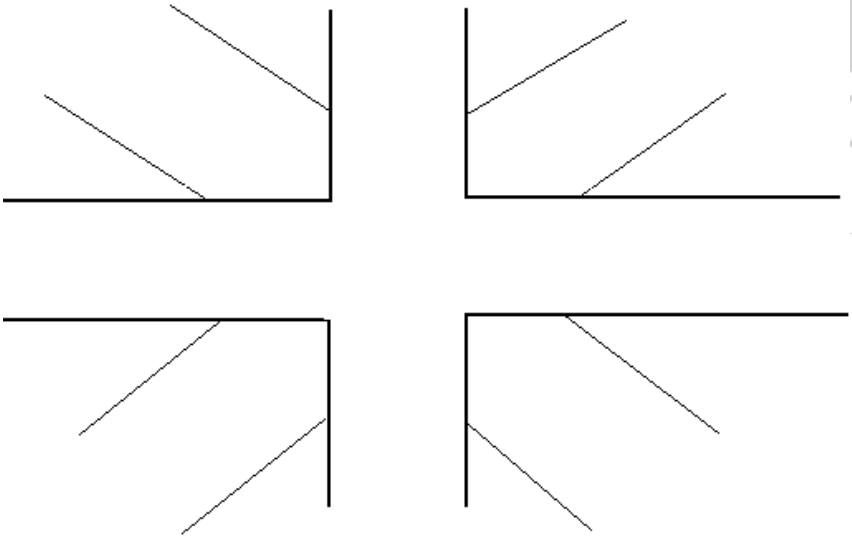
Address/Phone: _____

_____

Witness Signature & Date

DRIVER'S STATEMENT OF ACCIDENT

Please describe the accident to the best of your ability and complete diagram of accident.



Please explain using the diagram as best as you can the detail of the accident, make any changes necessary to depict the site

_____

Driver's Signature & Date

ADDITIONAL INFORMATION

Please provide any additional information obtained through your investigation of this accident.

_____ _____

Foreman's Signature Project Manager's Signature

Safety Department Representative: _____ Date: _____

Confined Space Permit

Project:		Contractor:		**Date:**	
Location		Submitted By:		**Time:**	AM PM

Permit Expires:	**Date:**		**Time:**		**Type of Confined Space:**	~ Tank ~ Pipe	~ Vault ~ Excavation	~ Tunnel ~ Manhole	~ Other ~ Trench

Safe Entry Verification:	**Date:**	**Supervisor's Signature**
Lockout/Tagout (electrical, agitators, valves)		
Purged, Cleaned and Drained		
Employees Trained on Safety Procedures		

Special Requirements	**Mandatory?**			**Mandatory?**	
Notify Utility/Utility	~ Yes	~ No	Lifelines	~ Yes	~ No
Adequate Access	~ Yes	~ No	Harness, Safety Belt	~ Yes	~ No
Lighting Adequate	~ Yes	~ No	Respirators	~ Yes	~ No
Attendant Required Outside	~ Yes	~ No	Air Supplied Respirators	~ Yes	~ No
Warning Signs Posted at Access	~ Yes	~ No	Protective Clothing	~ Yes	~ No
Atmospheric Testing	~ Yes	~ No	Radio Communication – Pulling Crews	~ Yes	~ No
Ventilation Required as necessary	~ Yes	~ No	Signaling Air Horns	~ Yes	~ No
Personnel Entry/Exit Log at Access	~ Yes	~ No	Emergency Escape Manual Winch	~ Yes	~ No
Rescue Equipment at Access Point	~ Yes	~ No	Employee Training	~ Yes	~ No
Daily Monitoring – Continuous	~ Yes	~ No			

Entrant Log	**Entrant Name**	**Time In**	**Time Out**	**Time In**	**Time Out**	**Time In**	**Time Out**

Atmosphere Check for Oxygen, Combustibles and Gas/Vapor				**Instrument Type:**	
Attendant:		**Date:**		**Instrument Calibration Date:** Must be within 90 Days of Use	

	Readings:										**Permissible Exposure Level:**
Time of Test:											
Oxygen											19.5% to 22%
Combustible Gases											10.0% LEL or less

Toxic Gases											H2S = 10ppm
Toxic Gases											CO + 35 ppm,

Emergency Phone Number:	**911 or Local**	**Name of Emergency Contact**	**Fire Rescue / EMS**

The following signatures indicate the above requirements have been met:

Superintendent:		Date/Time	
Foreman in Charge of Work:		Date/Time	
Attendant:		Date/Time	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Aetna Bridge Company

OSHA's Table One for Silica Control

1926.1153 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**
(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	None	APF 10
	When used indoors or in an enclosed area	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

1926.1153 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

1926.1153 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	APF 10	APF 10
(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	None	None
	Operate from within an enclosed cab and use water for dust suppression on drill bit	None	None

1926.1153 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	APF10
(xi) Handheld grinders for mortar removal (i.e., tuckpointing)	Use grinder equipped with commercially available shroud and dust collection system	APF 10	APF 25
	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		

1926.1153 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
(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 Use grinder equipped with commercially available shroud and dust collection system Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism:	None	None
	When used outdoors	None	None
	When used indoors or in an enclosed area	None	APF 10
(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	None	None

1926.1153 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
	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		
(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
(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:	None	None

1926.1153 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 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
(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 OR 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

1926.1153 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	None	None
	OR		
	When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab	None	None
	When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab	None	None